

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

**Palestine Polytechnic University**  
**College of Administrative Science and Informatics**  
**Information Technology Department**



## Traffic Police In Hebron city

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This project was prepared to complete the graduation requirements in  
Information Technology major

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## Dedication

*To our parents for their ongoing support and encouragement all the time.*

*To our Supervisor Dr. Mahmoud AL-Saheb*



*To all martyrs who scarify themselves struggling toward freedom,*

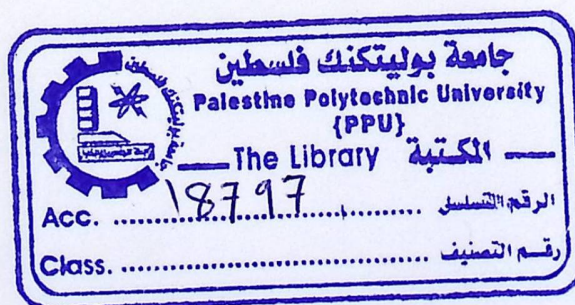
*and to all our teachers, lecturers, and friends.*

### *Project teamwork:*

*Ahmad AL-horini*

*Ammar Abu-Znied*

*Nidal Hoshieh*



## Acknowledgment

Many thanks for our supervisor Dr. Mahmoud AL-Saheb and to every one who helped us in our project.

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Great thanks to the Traffic Police staff in Hebron City for their help and patience.

Thanks to all who help to reveal this project to light.

## Abstract

The ultimate aim of our project is to create a system of Police Traffic in Hebron City that connect other traffic department in the surrounded villages (Yatta, Doura, AL-Dahrea) with the central office in Hebron .

Our system tries to meet the majority of the Police Traffic requirements from accidents information, Tickets of cars, illegal car and information about wonders and keep other departments in touch with the central office in Hebron.

In addition to that, our system can transmit an immediate data about subjects that we mentioned above in fast and secure way by linking it with a web sit on the internet. Also in our system the administrator can add some advertisements about any subjects that we need.

We conclude that using the web site work in facilitating data transition between other departments in order to reduce effort and cost.

## Project problem

The project problem can be summarized in the following points:

### ❖ From Police man:

- Manual method in saving the data about accident, wonders, Tickets ... is very difficult and complex.
- The weakness of communication between Police traffic offices locations, this problem due to the distant locations between Police traffic buildings.
- Political circumstances and occupation obstacles that prevent Police man from moving between the villages.

### ❖ From citizen:

- Problem of finding the illegal cars.

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Chapter one

**System Specification**

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### 1.1. Introduction:-

Police Traffic is one of the most important parts in the Palestinian National Authority that works to protect citizen's life, and give them an opportunity to live in a secure world without vilance and disturbing.

Police traffic in Hebron city is one part of Palestinian Police which contain five parts and has 94 police man distributed between Traffic offices in Hebron city.

Police Traffic in Hebron city connected with five other departments around the Hebron city (central office) and these departments are: *Yatta, Doura, Al-dahreah, Bani-Naem, and Nouba* departments. The central office distributed on three parts:

- Administrator department.

Responsible about other departments, and interact with the general administration in Rammalla.

- Tickets department.

Responsible about the drivers Tickets.

- Accident department.

Responsible about Road Accidents and collecting, and supplying information to support the administrator department with it.

Through our analysis operation of situation of the Traffic Police in Hebron city, the work team decide to make this project for accident department in order to help them in there works.

Here, we will provide the specifications of the system to be built, such specifications are the topics that we will cover in this chapter:

- **Problem Definition:** why to build this system (Tracking police Supporting System)?
- **System Objectives and importance:** what are the main objectives of the system and its importance?

- **Functional Requirements Specification:** the statements of services the system should provide
- **Non-Functional Requirements Specification:** requirements that are not directly concerned with the specific services or functions delivered by the system.
- **System Constrains:** the general and specific system constrains due to its woks and performs nature:
- **Feasibility Study:** explaining the most important alternatives faced the system and the project team, the economical study issues, and the evolution of risks that may be facing the development operation of the system.
- **Time Scheduling:** how the available time to be located to the system activities.

## 1.2. Problem Definition

According to the current system that is used in the traffic police, which depend on traditional system, the project team found to use computerized system, also to use the current evolution of the internet technology, and software application that is simplified and fastest (by link the department of police with centralize office) the work.

1. Building a web page that connects the other departments of traffic police with central office in Hebron.
2. Improving the quality of the police officer works by give them an ability to get fast information about what happen in other offices "areas".
3. Applying technological advances in serving the departments of police.
4. Improving effectiveness and accuracy in the police departments work.
5. Help the police officers in creating reports (statistic reports, accident, etc...) that related to their works.
6. Reduce time and efforts.
7. Help the administrative office to send reports about accident and wounds, to the general Administrative in Ramallah.
8. Integrated system that would give police staff an easy and consistent way to communicate and exchange information about decisions and events.
9. Give the other citizen chances to help the office by supplying the office with important information about what subject for police work.

### 1.2.1. Primary objectives:

- A. Apply effective programs and software
- B. Integrity and security.
- C. Interactivity for users (citizen and police):
  1. User interface usability.
  2. Make cooperative environment.

### 1.3. System Objectives:

In our system we work toward creating an integrated Police web and windows applications that should help the police to connect the departments of police with the central office in Hebron city:

#### 1.3.1. Public Objectives for ( police) :

1. Building a web page that connects the other departments of traffic police with central office in Hebron.
2. Improving the quality of the police office works by give them an ability to get fast information about what happen in other offices "areas".
3. Applying technological advances in serving the departments of police.
4. Improving effectiveness and accuracy in the police departments work.
5. Help the police officers in creating reports (statistic reports, accident, etc...) that related to there works.
6. Reduce time and efforts.
7. Help the administrative office to send reports about accident and wonder, to the general Administrative in Rammalla.
8. Integrated system that would give police staffs an easy and consistent way to communicate and exchange information about deadlines and events.
9. Give the other citizen chances to help the office by supplying the office with important information about sum subject for police work.

#### 1.3.2. Privacy objectives:-

- A. Apply effective programs and software
- B. Integrity and security.
- C. Interactivity between citizen and police :-
  1. User interface usability.
  2. Make cooperative environment.

**1.4. Functional Description:**

1. Login: each member department and administrator can login using user name and password.
2. Register immediate information about accident :
  - Information about wonders.
  - Insert information about the driver.
  - Information about accident cars.
3. Insert information about Tickets.
4. Issue immediate reports about :
  - Statistical reports about the accidents dally, weekly and monthly.
  - Issue reports about accident (wonder, driver, car).
  - Reports related to Tickets.
  - Confinement commands for drivers.
  - Deliverances command for drivers.
  - Court of law reports about the accident.
  - Show summary report to all entered data.
5. Show search information about Ticked drivers and there cars by administrator.
6. Add, delete, and update user account (department member) by administrator.
7. View Advertisement Page: Any department can view this page and help center office with important information, or show sum information about illegal driver.
8. Add Advertisements: The administrator can add new advertisement after login by username and password.
9. Deleted Advertisements: The administrator can delete advertisement after login by username and password.
10. Update advertisements: Each administrator can update any advertisement.

### **1.5. Non-functional requirement :**

Non-functional description defines system properties and constrains.

#### **A. Product Requirement:**

1. System must be adaptable with changes and developable.
2. System must operate on windows environment.
3. Ease of use:
  - Good user interface.
  - Access data easily.
4. Consistency and integrity :

The system must be integrated with both an application and database.
5. High efficiency :
  - Safety: the system must prevent uncorrected operations, and applying different authentication and backup method.
  - Security: data be stored in security environment.
  - Limited error occurred .
  - Recourses must be managed in effectively way.
6. Reliability :
  - System must be apply to check error occurred in input before editing data on server.
  - The system performance must be accruable.

#### **B. Process Requirement:**

The portal project and its documents must be delivered on 10 February 2006.

### 1.6. Project Constrains:

- Each department has a user name and password.  
The administrator in the central department has a user name and password .  
The Password must be encrypted and it also must be more than six characters (alpha numeric mixture is preferred).
- End user must have suitable browser and applications to see and browse the web page in the best manner.
- The total cost shouldn't exceed more than the cost that will be decided in Feasibility Study
- The system should be flexible for maintenance and evolution
- The administrator in the central department must be able to add, delete and update on other counts.

### 1.7. Feasibility Study:

This section will discuss alternative, economic feasibility, cost\_benefit analysis and risk evaluation.

#### 1.7.1. Alternatives:

##### 1. Type of system used for application:

We can develop our system by working in two different methodologies:

- Intranet
- Web based client server methodology.

##### A. Intranet Methodology:-

An Intranet is a network based on the internet TCP/IP open standard. An intranet belongs to an organization; Authorized users outside your company such as your remote workers, Intranets are used to share information. Secure intranets are much less expensive to build and manage than private.

##### Advantages:

- High speed.
- Shares software between peripherals.
- Provides backup systems in a real time.
- Low cost
- Decentralization.
- Support high level of security and reliability.

##### Disadvantages:

- Internal access only within the organization.
- Coverage area is limited.

**B. Web based methodology:-**

The user can browse the system site by using client machines that connect to the web.

**Advantages:**

- There is no limit on size.
- Covers the entire world without any restrictions.

**Disadvantages:**

- Rational:
  1. No clear web standards.
  2. Anyone can publish anything.
- Accuracy:
  3. Information does not reliable all the time.
  4. There is no editor or someone who checks information.
- The problem of authority and security.

By comparing and analyzing these two approaches we choose to work with the web-based methodology to enable department member insert information from outside environment of the central office.

## 2. Type of software used for application:

*For database there are two alternatives:*

- A. *SQL Server 2000*: is a full featured relational database management system for data storage and manipulation with support for robust server side development and data replication.

### Advantages:

- Each data item is stored in a central location where all users can work with it.
- Business and security rules can be defined one time on the server and enforced equally among all users.
- A relational database server optimizes network traffic by returning only the data an application needs
- Hardware costs can be minimized.
- Maintenance tasks such as backing up and restoring data are simplified because they can focus on the central server.
- The capability to search and sort data and find information quickly.

### Disadvantages:

- A License needs to be purchased for SQL Server.
- If data is not stored on an existing server; an additional server will need to be purchased to run SQL Server.

- B. *Microsoft Access*: Access is a database management program that allows you to store, retrieve, analyze, and print.

Advantages:

- The capability to search and sort the data and find information quickly.
- Easy for beginners to work with it.
- Need low level of computer resources.

Disadvantages:

- Low security level when compared with SQL server 2000.
- Limit user access.
- Limit in dealing with web.

After analysis The team work choose to work with SQL server 2000.

*for implementing and developing the system we have tow available alternatives which are:*

- A. *Visual Studio.NET*: simplifies the development of powerful, reliable enterprise web solutions and increases developer efficiency by providing a familiar, shared development environment.

Advantages:

- One IDE for multiple languages and multiple project types.
- Multiple languages within a project.
- Multiple project types within a solution.
- Integrated browser.
- Debugging support.
- Customizable interface.
- High security supported.
- Deals with XML format.

Disadvantages:

- Requires high processor and memory speeds.
- Difficult for beginner programmers to work with it.

B. *Microsoft front page*: used to create traditional static web pages.

Advantages:

- Ease of use.
- Supported by all windows environment .
- Requires low level of computer capabilities.

Disadvantages

- Low security level when compared with ASP.NET as a huge technology.
- Creates a static web based.
- Limitation of scope.

After analysis the first choice (Visual Studio.NET) will be selected.

### 1.7.2. Cost benefit analysis:

According to team analysis, system contains three aspects for Cost benefit analysis:

1. Economic :

All system hardware and software requirement are available, and its will discuss later.

2. Technology :

All required material for system is available such as:

- Visual Studio.NET Program.
- Visual Studio.NET books.
- SQL server 2000.
- Microsoft office.
- Multimedia programs.

3. Legislation :

The project developed for the Traffic Police.

And the Traffic Police allow the team to make analysis on it.

**Risks Evaluation:**

There is an opportunity for several risks that may face our system, This section will explain some potential risks and cover them accordingly with proposed solution.

**The Risks and proposed solution:**

1. The system may attacked by viruses.  
The proposed solution: Using Antivirus system.
2. Time required for built and developed the system.  
The proposed solution: Distribute the tasks on the project team.
3. The user has difficulties to deal with system.
4. Hardware failing.  
The proposed solution: Used backup method and store database in different place.
5. Possibility to use the system from others (hacking)  
The proposed solution: Use user name and password.
6. Hacking the data while transmitting it through the web.  
The proposed solution: encryption data.

## 1.8. Economic Study (resources and costs)

## 1. For development

Hardware

Item	Number of units	Cost per unit	Cost of units
Desktop computer P4, 256MB RAM, HD 40 GB, CPU with 2.4 GHz speed.	2	\$600	\$1200
Flash Memory 256MB	3	\$30	\$90
Laser HP printer	1	\$200	\$200
<b>Total</b>			<b>\$1490</b>

Table (1.1) development Hardware Cost.

Software

Item	Number of units	Cost per unit	Cost of units
Microsoft Windows XP	1	\$150	\$150
Visual Studio.Net	1	\$900	\$900
Microsoft Office XP	1	\$270	\$270
PhotoShop	1	\$70	\$70
PhotoImpact	1	\$60	\$60
SQL Server 2000	1	\$120	\$120
<b>Total</b>			<b>\$1570</b>

Table (1.2) development software cost

Human

Employee	Number of persons	Cost/month
Designer	2	\$1600
Programmer	1	\$800
<b>Total</b>		<b>\$2400</b>

Table (1.3) development human resources cost/month.

## 2. For implementation

Hardware

Item	Items No	Cost/Item	Cost
Server Computer	1	\$1750	\$1750
Client computer	5	\$450	\$2250
Monitor 17inch	5	\$110	\$550
Peripherals	5	\$90	\$450
<b>Total</b>			<b>\$5000</b>

Table (1.4) Hardware Cost for Implementation.

Software

Item	Items No	Cost/Item	Total
Windows Server 2003	1	\$400	\$400
Office XP	1	\$270	\$270
Windows XP	1	\$150	\$150
MS SQL Server 2003	1	\$230	\$230
Norton Antivirus 2003	1	\$180	\$180
<b>Total</b>			<b>\$1230</b>

Table (1.5) Software cost Implementation.

Human

Employee	No	Monthly cost
Administrator	1	\$900
Administrator Supervisor	1	\$700
Administrator Assistance	5	\$600
<b>Total</b>		<b>\$2200</b>

Table (1.6) Human recourses cost for implementation.

*The overall costs for the Portal system summarized in the following table:*

1) For development:	
a) Hardware:	\$1490
b) Software:	\$1570
c) Human:	\$2400/month (2400*4)
<b>Total Cost</b>	<b>\$12660</b>

Table (1.7) The overall development costs summery.

2) For Implementation :	
a) Hardware:	\$5000
b) Software:	\$1230
c) Human:	\$2200
<b>Total Cost</b>	<b>\$8430</b>

Table (1.8) The overall Implementation costs summery.

3)	<b>Total cost summary</b>	
a)	Development	<b>\$5460</b>
b)	Implementation:	<b>\$8430</b>
<b>Total Cost</b>		<b>\$13890</b>

Table (1.9) The total cost summary for both development and implementation.

**1.9. Schedule**

All of the system development tasks are distributed over the available 15 week as show below in table (1.10).

Task	Week	Time in weeks
T1	Information collection	1
T2	System specification	2
T3	Software requirements	2
T4	System design	5
T5	Coding and Implementation	5
T6	System testing	3
T7	Testing and Debugging	2
T8	Documentation	15

Table (1.10) Time Schedule in weeks.

**Task allocation vs. time:**

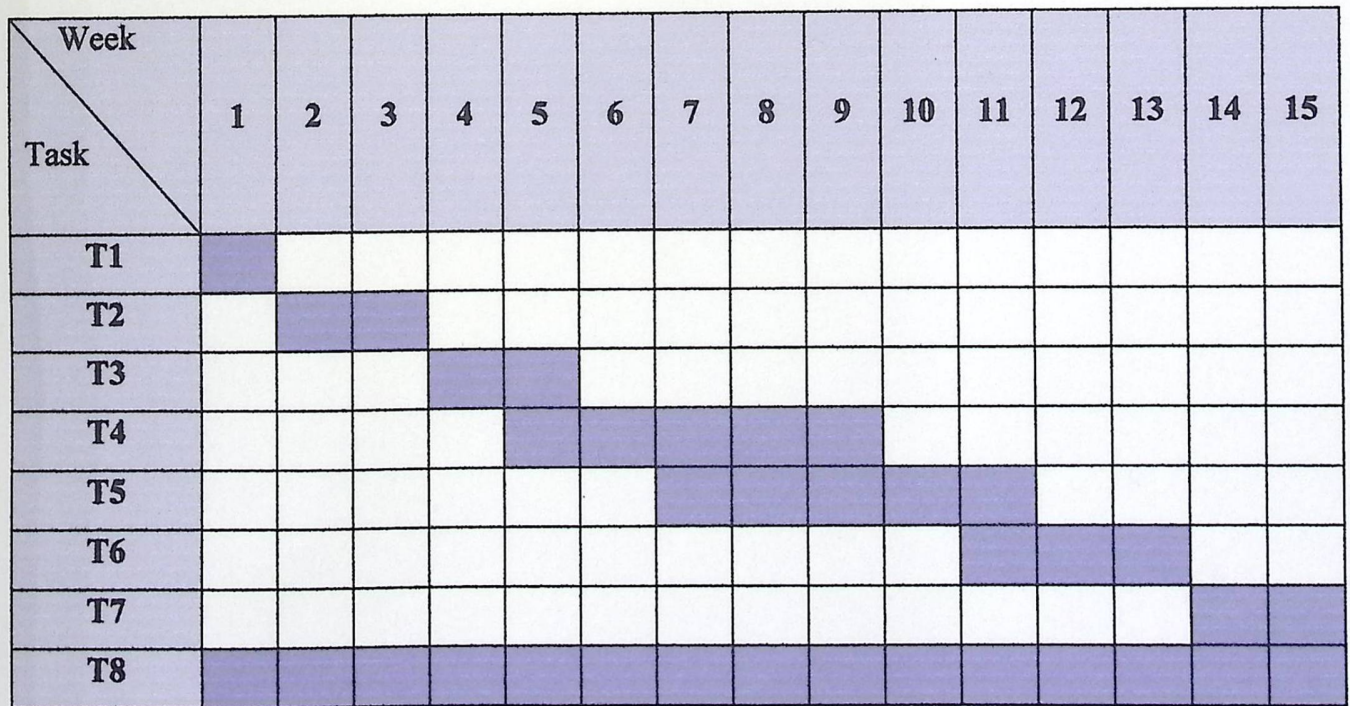


Figure (1.1) Gantt chart for time schedule.

Chapter two

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## 2.1 Introduction

This chapter will explore in detail the system requirements specifications, functional description, validation criteria that contain data flow diagram (DFD), data structure presentation, data dictionary and database requirement.

The following topics will be presented in this chapter:

- **Functional requirements specification:** Each requirement and function in the system will be specified in more details.
- **Validation criteria:** Here we will provide a description about the most important criteria that our system strongly takes care of.
- **Information description:** Here we will discuss many related issues such data flow between the system and its subsystems supported with Data Flow diagrams, listing all items that have been used in our system programming and coding stage such stored procedures and variables, and we will provide a description on each database table including each table specification keys, fields, types...

## 2.2 Current System Analysis

Through searching and analysis the work team found that the current system that use in Traffic police is manually system in all of its department, and it depend on collect data, store records about tickets and accident and the connection with other department are manually process, also the searching process about stolen cars and illegal drivers are depends on telephone calls and fax so its not effective operations.

So the working team decides to solve this problem and reduce the efforts of the police traffic departments.

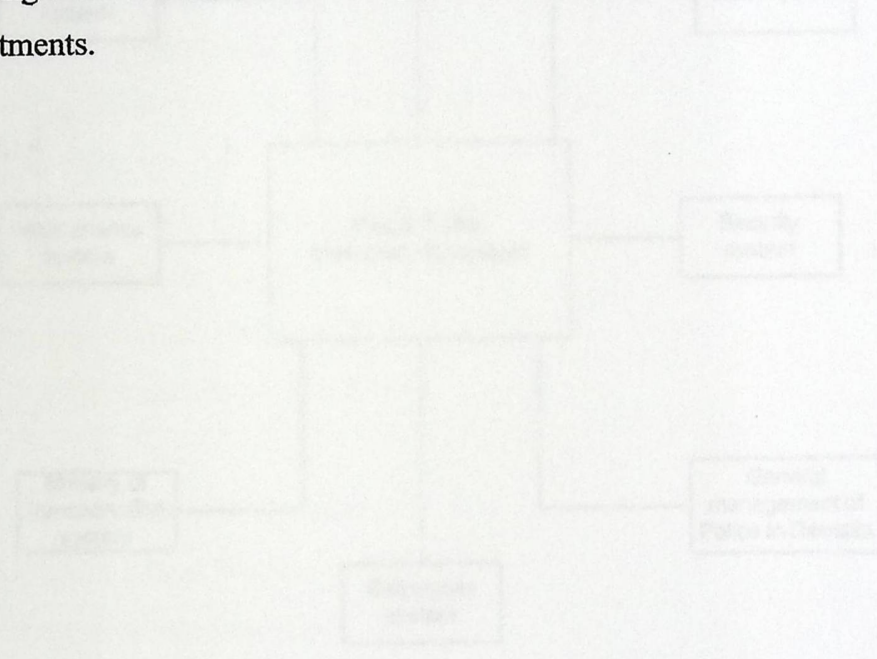


Figure (2.1) system context model.

### 2.3 Data system model

This model shows an over view of the system and its relationships with other systems. This shows only the system names without details about relationships.

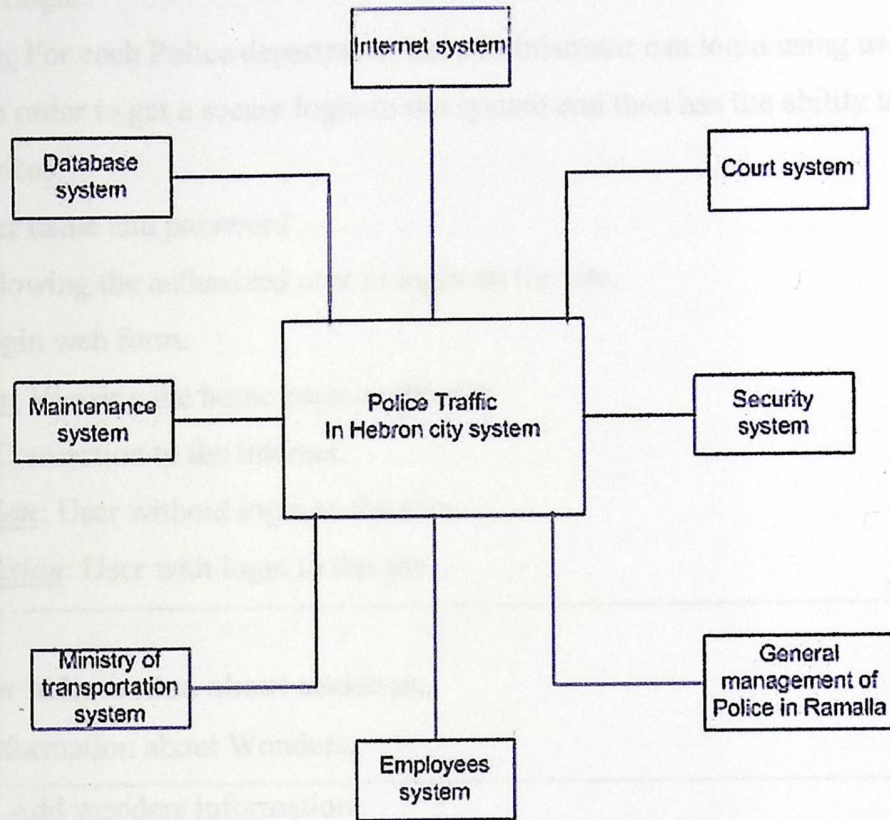


Figure (2.1) system context model.

## 2.4 Functional Requirement Specification

Here, we will describe the functional requirements in more detail.

### 1. Login

**Function:** Login.

**Description:** For each Police department and administrator can login using username and password in order to get a secure login to the system and then has the ability to use the system services.

**Inputs:** User name and password

**Output:** Allowing the authorized user to login on the site.

**Source:** Login web form.

**Destination:** Viewing the home page on the site.

**Requires:** Connection to the internet.

**Pre-condition:** User without login to the site.

**Post-condition:** User with login to the site.

### 2. Register information about accident:

- Information about Wonders.

**Function:** Add wonders information.

**Description:** For each Police department can add information about wonders in the accident.

**Inputs:** Wonder number, name, birth place, birth date , wonder ID , Tel number, address, Job, work place , Date, Time , Place of accident , name and id of the police man.

**Output:** None.

**Source:** Wonder web form.

**Destination:** Submit new wonder information in the Database server.

**Requires:** Connection to the internet and user login.

**Pre-condition:** Database without wonder information.

**Post-condition:** Database with wonder information.

- Information about driver.

**Function:** Add driver's information.

**Description:** For each Police department can add information about driver in the accident.

**Input:** Accident no, Testimony no, driver name, birth date, ID, Tel no, job, current and fixed address, car model, type, date of permit issue, permit no, degree of permit, date of end permit, place of job, car no, period of car permit, color of the car, tail no, date of issues tail permit, date of end tail permit, tail model, name of company, name of insurance company, fish no, start and end date of fish, date, place, inquisitor degree, name, notes about accident.

**Output:** None.

**Source:** Driver web form.

**Destination:** The database server.

**Requires:** Connection to the internet and user login.

**Pre-condition:** Database without driver information.

**Post-condition:** Database with driver information.

- Information about cars

**Function:** Car diagnosing.

**Description:** For each Police department can add information about car related to the accident.

**Input:** Car no, type, model, color, motor no, tube size, chairs no, owner name, owner id, live location, Police note (name, job, signature, echelon)

**Output:** None.

**Source:** Car web form.

**Destination:** The database server.

**Requires:** Connection to the internet and user login.

**Pre-condition:** Database without car information.

**Post-condition:** Database with car information.

### 3. Add information about Tickets

**Function:** Add Tickets information.

**Description:** For each Police department can add information about Tickets.

**Input:** Court name, driver name, driver address, driver id, permit no ,car type, car no, date of Tickets, hour of Tickets, location of Tickets, comments about Tickets, date of Court.

**Output:** None.

**Source:** tickets web form.

**Destination:** The database server.

**Requires:** Connection to the internet and user login.

**Pre-condition:** Database without ticket information.

**Post-condition:** Database with ticket information.

### 4. Issue immediate reports about

- Statistical reports.
  - a) Reports about accident dally, weekly, monthly.

**Function:** Issue Statistical information.

**Description:** Administrative office can issue statistical report.

**Input:** Date range.

**Output:** Dally activities, summary of dally traffic accidents, summary of monthly traffic accidents.

**Source:** Statistical report web form.

**Destination:** The database server.

**Requires:** Connection to the server.

**Pre-condition:** data on the database.

**Post-condition:** Statistical information on the papers.

- b) Report about wonders.

**Function:** Issue wonders information.

**Description:** For administrative office can issue statistical information about wonders in the accident.

**Inputs:** Age level.

**Output:** Death, number of dangers hits, number of mediums hits, number of simply hits, total of hits.

**Source:** Report form.

**Destination:** Database server.

**Requires:** Connect to the database.

**Pre-condition:** Data in the database.

**Post-condition:** Information on the papers.

- Issue driver report.

**Function:** Issue driver's information.

**Description:** For administrative office can issue information about driver in the accident.

**Input:** Driver id.

**Output:** Accident no, Testimony no, driver name, birth date, ID, Tel no, job, current and fixed address, car model, type, date of permit issue, permit no, degree of permit, date of end permit, place of job, car no, period of car permit, color of the car, tail no, date of issues tail permit, date of end tail permit, tail model, name of company, name of insurance company, fish no, start and end date of fish, date, place, inquisitor degree, name, notes about accident.

**Source:** Driver report form.

**Destination:** The database server.

**Requires:** Connection to server database.

**Pre-condition:** data on the database.

**Post-condition:** information on the papers.

- Issue cars report.

**Function:** Issue car diagnosing.

**Description:** For administrative office can issue information about car related to the accident.

**Input:** Car no.

**Output:** Car no, type, model, color, motor no, tube size, chairs no, owner name, owner id, live location, Police note (name, job, signature, echelon).

**Source:** Car form.

**Destination:** The database server.

**Requires:** Connection to the internet.

**Pre-condition:** Data on the database.

**Post-condition:** Information on the papers.

- Detain commands for drivers.

**Function:** Insert Detain commands for drivers.

**Description:** For administrative office can issue Detain commands for drivers.

**Input:** Driver id, driver name, Address, breath date, the accusation, problem number, police state, date, time, plaice of Detain, police name, police echelon, signature.

**Output:** Report.

**Source:** Driver Detain form.

**Destination:** The database server.

**Requires:** connect to the server database.

**Pre-condition:** Database without detain command.

**Post-condition:** Database with detain command.

- Release command for drivers.

**Function:** Issues Release command for drivers.

**Description:** For administrative office can issue Release command for drivers.

**Input:** Detain id, Detain name, Address, breath date, the accusation, problem number, police department, Detain date, Detain time, Release time, plaice of Deliverances, police name, police echelon.

**Output:** Report.

**Source:** Driver Release form.

**Destination:** The database server.

**Requires:** Connection to server database.

**Pre-condition:** Database without release command,

**Post-condition:** Database with release command.

- Summary reports about accident.
  - a) Summary report about accident without wonders.

**Function:** Issues summary report about accident without wonders.

**Description:** For administrative office can issue report contains summary of the accident without wonder.

**Input:** Police file no.

**Output:** Car type, car no, deriver name, driver ID, insurance company, fish no, accident date, time, name of the day, place, size of the damage, accident causative, policeman name, echelon, note about the accident.

**Source:** Summary reports form.

**Destination:** The database server.

**Requires:** Connection to server database.

**Pre-condition:** Databases without Summary report about accident without wonders.

**Post-condition:** Databases with Summary report about accident without wonders.

- b) Summary report about accident with wonders.

**Function:** Issues summary report about accident with wonders.

**Description:** For administrative office can issue report contains summary of the accident with wonder.

**Input:** Police file no.

**Output:** Car type, car no, driver name, driver ID, insurance company, fish no, accident date, time, name of the day, place, wonder name, birth date, ID, address, wonder type, policeman name, echelon, note about the accident.

**Source:** Summary reports form.

**Destination:** The database server.

**Requires:** Connection to server database.

**Pre-condition:** databases without Summary reports about accident with wonders.

**Post-condition:** databases with Summary reports about accident with wonders.

- Court of law reports about the accident.

**Function:** Issues report about the accident for court of law.

**Description:** For administrative office can issue report contains details information about the accident.

**Input:** Police file no.

**Output:** policeman name, echelon, place of work, police file no, accident place, date, time, detail information about cars and drivers, weather, face of the road state, damages, detail information about place of accident car type, venue, traffic sign, conclusion and summary.

**Source:** Reports form.

**Destination:** The database server.

**Requires:** Connection to server database.

**Pre-condition:** databases without reports about Court of law reports.

**Post-condition:** databases with reports about Court of law reports.

**5. Show information about ticked drivers and there cars by administrator.**

**Function:** Show driver tickets information.

**Description:** For administrative office can show information about tickets for driver.

**Input:** Driver id.

**Output:** Driver id, driver name, ticket no, date of register, place, car no.

**Source:** Tickets form.

**Destination:** The database server.

**Requires:** Connection to the internet.

**Pre-condition:** information in databases.

**Post-condition:** access information from databases.

**6. Add, delete, and update user account (department member) by administrator.**

- Login in administrator.

**Function:** Login administrator.

**Description:** Identify the administrative using username and password.

**Input:** ID, password.

**Output:** Operation's form

**Source:** Administrator form.

**Destination:** The database server.

**Requires:** Valid administrator ID and password.

**Pre-condition:** Not logging administrator.

**Post-condition:** Logging administrator.

- Add user account.

**Function:** Add new user.

**Description:** The administrator can give privileges to users by user name and password.

**Input:** User name, password, confirm new password.

**Output:** Add user account.

**Source:** Add User account form.

**Destination:** The database server.

**Requires:** Connection to the server and administrator login.

**Pre-condition:** System and (users) table without new user account data.

**Post-condition:** System and (users) table with new user account data..

- Delete user account.

**Function:** Delete user account.

**Description:** The administrative can delete user account from database.

**Input:** User name.

**Output:** deleting user account.

**Source:** Delete user account form.

**Destination:** The database server.

**Requires:** Connection to the server and administrator login.

**Pre-condition:** System and (users) table with some user account data.

**Post-condition:** System and (users) table without some user account data.

- Update user account.

**Function:** Update accounts.

**Description:** The administrative can change user name and password.

**Input:** user name, old password, new password and confirm new password.

**Output:** New password.

**Source:** Update user account form.

**Destination:** The database server.

**Requires:** Connection to the server and administrator login.

**Pre-condition:** User account with old password.

**Post-condition:** User account with new password.

## 7. View Advertisement Page.

**Function:** View advertisement Page.

**Description:** Any department can view advertisements page and help center office with important information, or show sum information about illegal driver.

**Input:** None.

**Output:** Show advertisements.

**Source:** advertisement page.

**Destination:** The database server.

**Requires:** None.

**Pre-condition:** web form without advertisements.

**Post-condition:** web form with advertisements.

**8. Add New Advertisement.**

**Function:** Add new advertisement.

**Description:** Administrator can add new advertisement about (stolen cars and illegal cars).

**Input:** Car no, date of stolen, place.

**Output:** None.

**Source:** Add advertisement form.

**Destination:** The database server.

**Requires:** Administrator login.

**Pre-condition:** Web form without new advertisement.

**Post-condition:** Web form with new advertisement.

**9. Update Advertisement.**

**Function:** Update advertisement Page.

**Description:** Administrator can update advertisement page (stolen cars and illegal cars).

**Input:** Updated information.

**Output:** Updated advertisements in the database.

**Source:** Update advertisement form.

**Destination:** The database server.

**Requires:** Administrator login.

**Pre-condition:** Web form without update information.

**Post-condition:** Web form with new advertisements.

**10. Delete Advertisement.**

**Function:** Delete advertisement.

**Description:** Administrator can delete advertisement from the database.

**Input:** Select advertisement.

**Output:** Deleted advertisement.

**Source:** Delete advertisement form.

**Destination:** The database server.

**Requires:** administrator login.

**Pre-condition:** web form with advertisement.

**Post-condition:** web form without advertisements.

## 1.1. Validation Criteria

Here we will provide a description about the most important criteria that our system strongly takes care of.

- **Login User Name:** Users and administrator login process required user names which represent their number that is to be provided by the administrator.
- **Login password:** The required login users need a password within the number to login. There is some constrains on the password format which must be at least six characters length and 30 as maximum, so it may be numeric, characters, or mixture data.
- **Database access:** Only the authorized users have the ability of accessing the system database each with its permissions: insert, delete, update, or view permissions.

2.6 Information description

2.6.1 Data Flow Diagram

Level 0: System data flow diagram

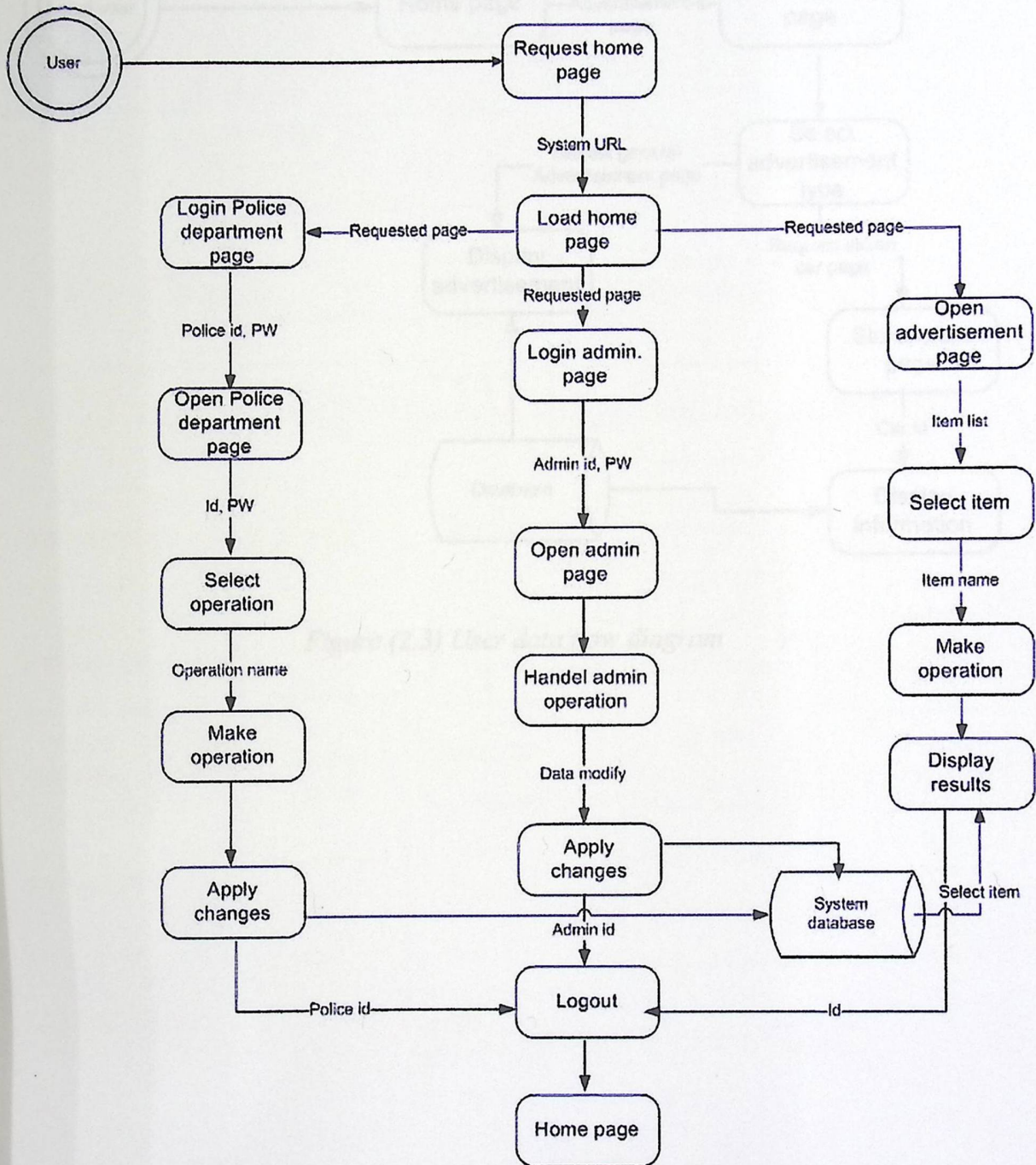


Figure (2.2) System data flow diagram

Level 1: User data flow diagram

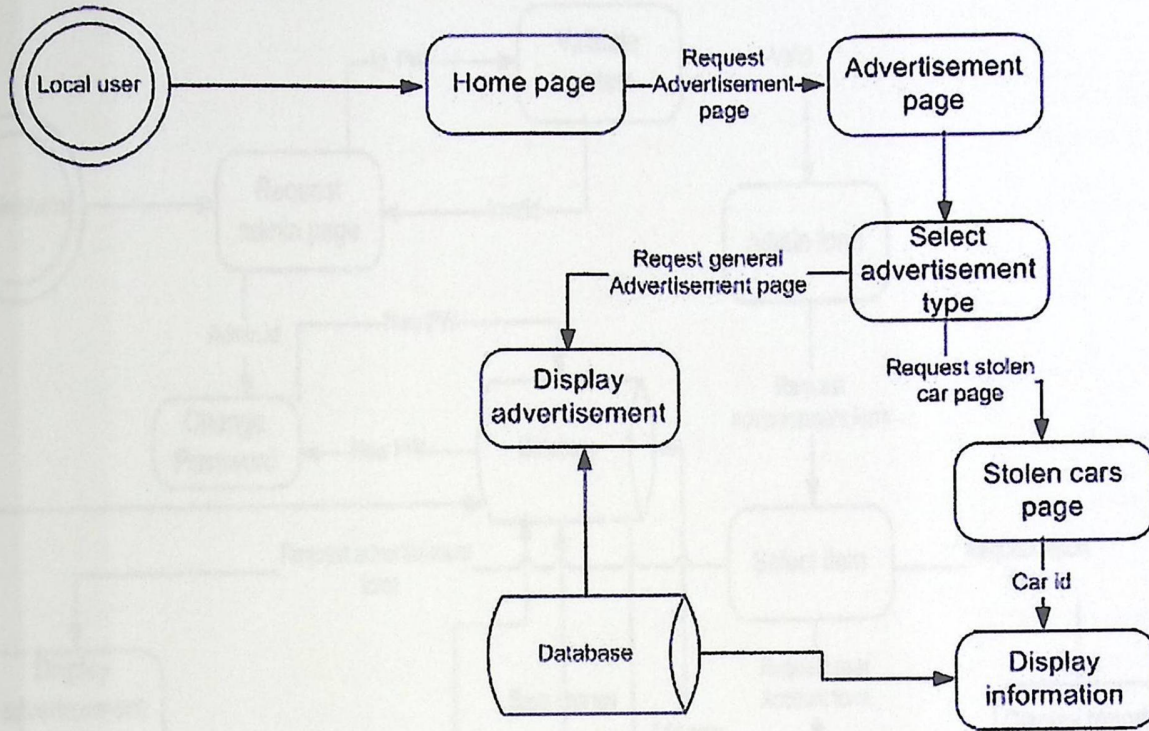


Figure (2.3) User data flow diagram

Level 1: Administrator data flow diagram

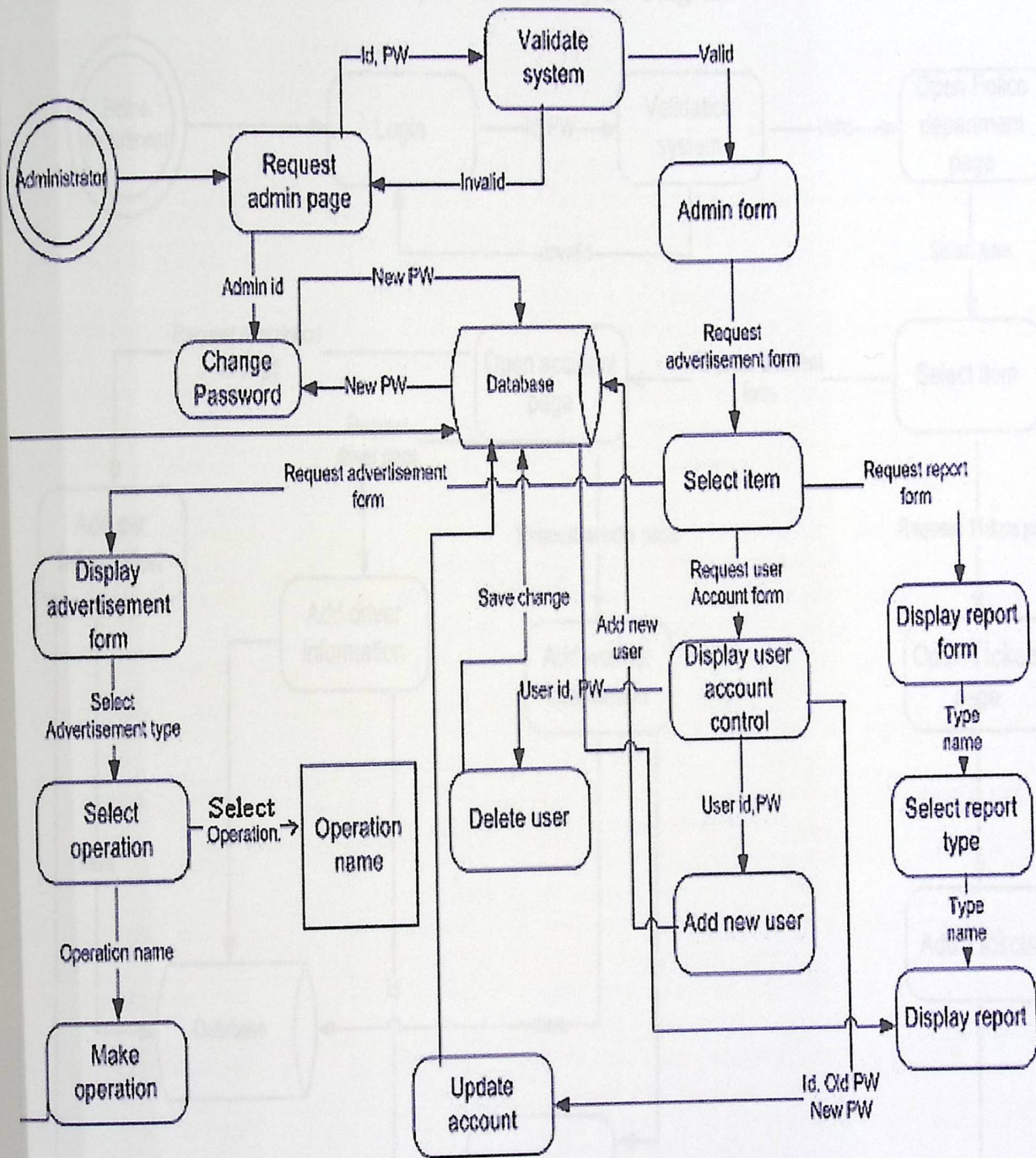


Figure (2.4) Administrator data flow diagram

Level 1: Policeman department data flow diagram

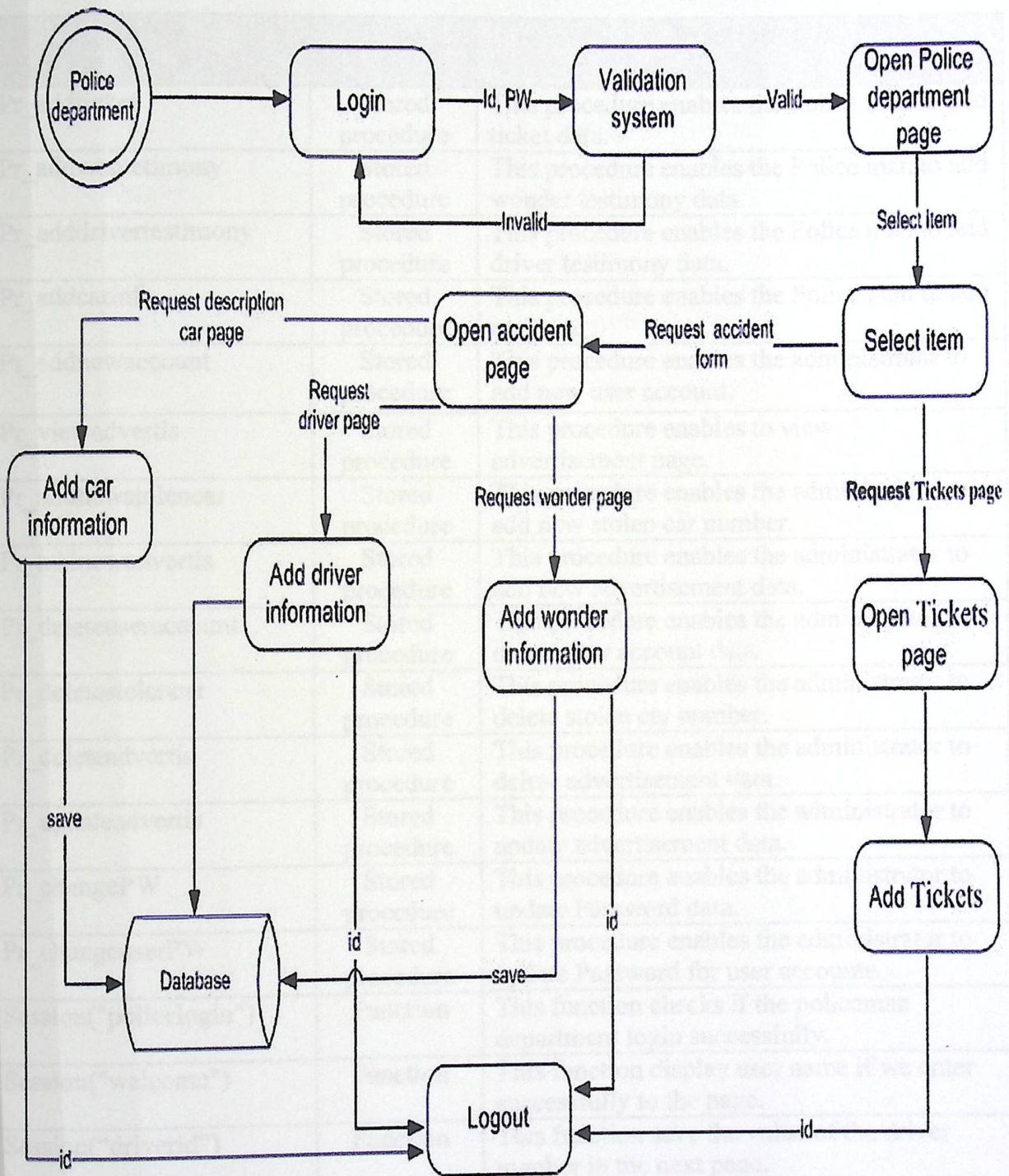


Figure (2.5) Policeman department data flow diagram

## 2.6.2 Data dictionary

Entity	Type	Description
Pr_addticket	Stored procedure	This procedure enables the Police man to add ticket data.
Pr_addwontetimony	Stored procedure	This procedure enables the Police man to add wonder testimony data.
Pr_adddrivertestimony	Stored procedure	This procedure enables the Police man to add driver testimony data.
Pr_addcarinfo	Stored procedure	This procedure enables the Police man to add car data.
Pr_addnewaccount	Stored procedure	This procedure enables the administrator to add new user account.
Pr_viewadvertis	Stored procedure	This procedure enables to view advertisement page.
Pr_addnewstolencar	Stored procedure	This procedure enables the administrator to add new stolen car number.
Pr_addnewadvertis	Stored procedure	This procedure enables the administrator to add new advertisement data.
Pr_deleteuseraccount	Stored procedure	This procedure enables the administrator to delete user account data.
Pr_deletestolencar	Stored procedure	This procedure enables the administrator to delete stolen car number.
Pr_deleteadvertis	Stored procedure	This procedure enables the administrator to delete advertisement data.
Pr_updateadvertis	Stored procedure	This procedure enables the administrator to update advertisement data.
Pr_changePW	Stored procedure	This procedure enables the administrator to update Password data.
Pr_changeuserPW	Stored procedure	This procedure enables the administrator to update Password for user accounts.
Session("policelogin")	Function	This function checks if the policeman department login successfully.
Session("welcome")	Function	This function display user name if we enter successfully to the page.
Session("driverid")	Function	This function save the value of the driver number in the next page.
Session("accno")	Function	This function save the value of the accident number in the next page.
Pr_advertis	Stored procedure	This procedure retrieves advertisement information.
Pr_wonderrep	Stored procedure	This procedure view report about wonder.

Pr_driverrep	Stored procedure	This procedure view report about driver.
Pr_carrep	Stored procedure	This procedure view report about car description.
Pr_ticketrep	Stored procedure	This procedure view report about driver tickets.
Pr_staticdayrep	Stored procedure	This procedure view report about statistical dally report about accident.
Pr_staticmonthrep	Stored procedure	This procedure view report about statistical monthly report about accident.
Pr_staticyearrep	Stored procedure	This procedure view report about statistical yearly report about accident.
Pr_detainrep	Stored procedure	This procedure view report for detain a driver.
Pr_relasrep	Stored procedure	This procedure view report for release a driver.
Pr_sumwonrep	Stored procedure	This procedure view report contain summary about accident with wonders.
Pr_sumaccirep	Stored procedure	This procedure view report contain summary about accident without wonders.
Pr_courtrep	Stored procedure	This procedure view report about the court.
Pr_driverpreticket	Stored procedure	This procedure view report about the all driver ticket in the past.

Table (2.1) Data dictionary

### 2.6.3. Database requirements

1. Driver Table

This table created to store data about drivers, such as (Driver Id, Driver name, Birth Date, Tel No, Job, ...).

2. Tickets Table

This table created to store data about tickets this data includes (Driver id, Date, Time, carno, policename, ...).

3. Ticket car

This table created to store data about ticket car, such as (carno, cartype).

4. Ticket driver:

This table created to store data about ticket driver, such as (driver no, driver name, permit no, ....)

5. Car Table:

This table created to store data about accident car such as (carno, car type, car model, chasi no, ....)

6. Department Table:

This table created to store data about city such as (city name).

7. Accident Table:

This table created to store data about accident such as (accno, acc date, place, ....).

8. Court Table:

This table created to store data about court such as (court name).

9. Wonder Table :

This table created to store data about wonder such as (accno, wonder name, Birth Place, ....)

10. Detain Table:

This table created to store data about wonder such as (driver no, problem no, police department, ...)

11. User Account:

This table created to store data about user accounts such as (user name, user password)

12. Driver Testimony Table:

This table created to store data about driver testimony such as(driver id, testimony date,accno,.....)

13. Stolen Car Table:

This table created to store data about stolen car such as(carno, date).

14. Insurance :

This table created to store data about insurance such as(fishino, company name, start date,...).

15. Driver Permit Table:

This table created to store data about driver permit such as(permit no, permit degree, start date,....)

**Chapter three**

**System design**

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### 3.1 Introduction

System design process concerned with designing the system functions to be implemented later. Here we are follow the functional oriented design process, where each function of the system will be designed.

The following topics will be covered in this chapter.

- **Functions Design:** here, each function of the system will be designed, for each function there are Flowchart, its interface (Input/Output), constraints, and user interface I/O screen.
- **Database Design:** here we will provide the Entity Relationship Model of the system database.
- **Test Plan:** here, a test plan for the testing processes that may used and its estimated time schedule will be provided.

## 3.2 Functional design

Here, each function of the system will be designed, for each function there are Flowchart, its interface (Input/Output), constraints, and user interface I/O screen.

## 1. Login:

For each Police department and administrator can login using username and password in order to get a secure login to the system and then has the ability to use the system services.

- a) Interface: For each Police department and administrator can login using.  
 Input: user name and password.  
 Output: allowing the Police man department and administrator to open the page.
- b) Constraint: The password must be between 6 to 30 characters.
- c) Input/output screen

Figure (3.1) Police man Login screen

d) Data flow chart

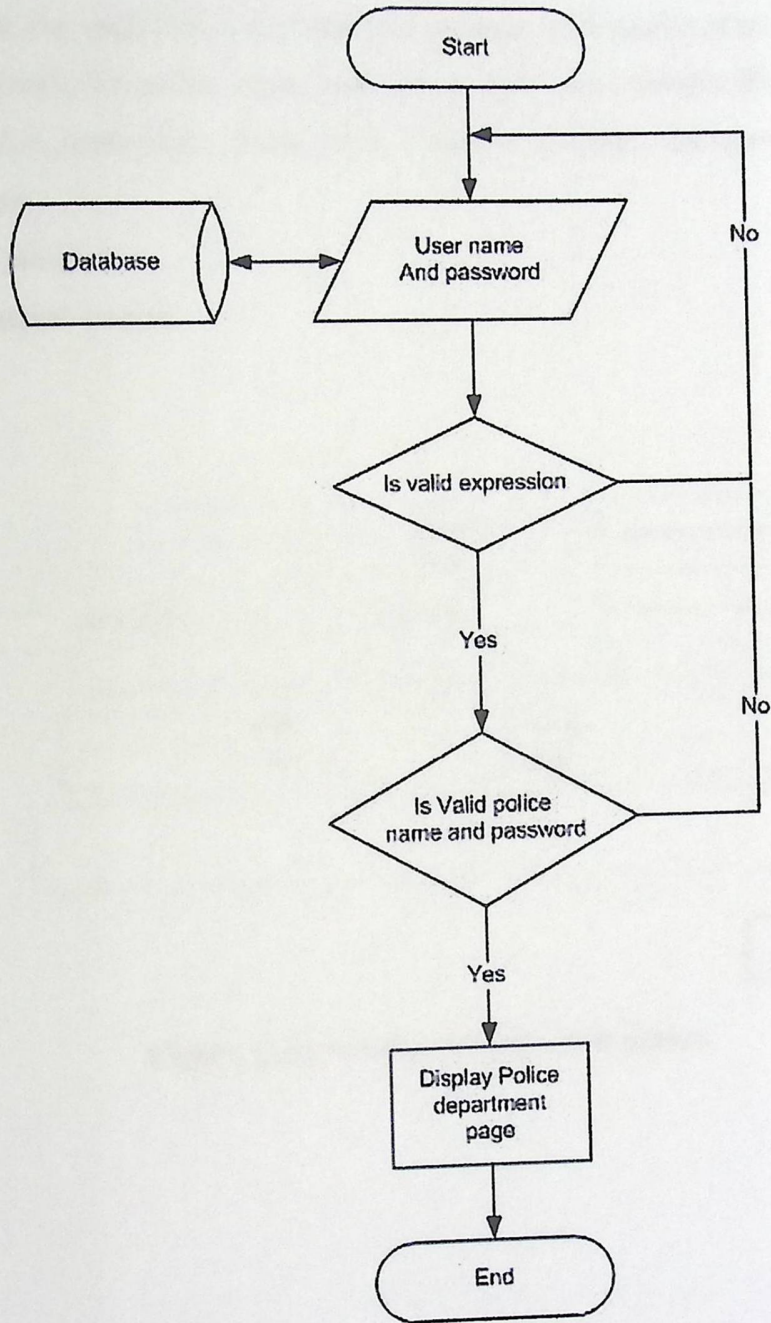


Figure (3.2) Police man login flowchart



2. Register information about accident:

• Information about Wonders.

a) Interface: For each Police department can insert information about Wonders.

**Input:** Wonders number, name, birth place, birth date, wonder ID, Tel number, address, Job, work place, Date, Time, Place of accident, name and id of the police man.

**Output:** None.

b) Input/output screen:

The form includes the following fields and labels:

- المهنة (Profession)
- المكان (Place)
- تاريخ الولادة (Date of birth)
- مكان الولادة (Place of birth)
- رقم الهوية (ID number)
- رقم الهاتف (Phone number)
- محل تسمي (Name location)
- رقم هاتف المصن (Manufacturer phone number)
- الكارنيه (License)
- اسم المصنق (Manufacturer name)
- الفضائل (Merits)

ارسال (Send)

Figure (3.3) wonder information screen

c) Data flow chart

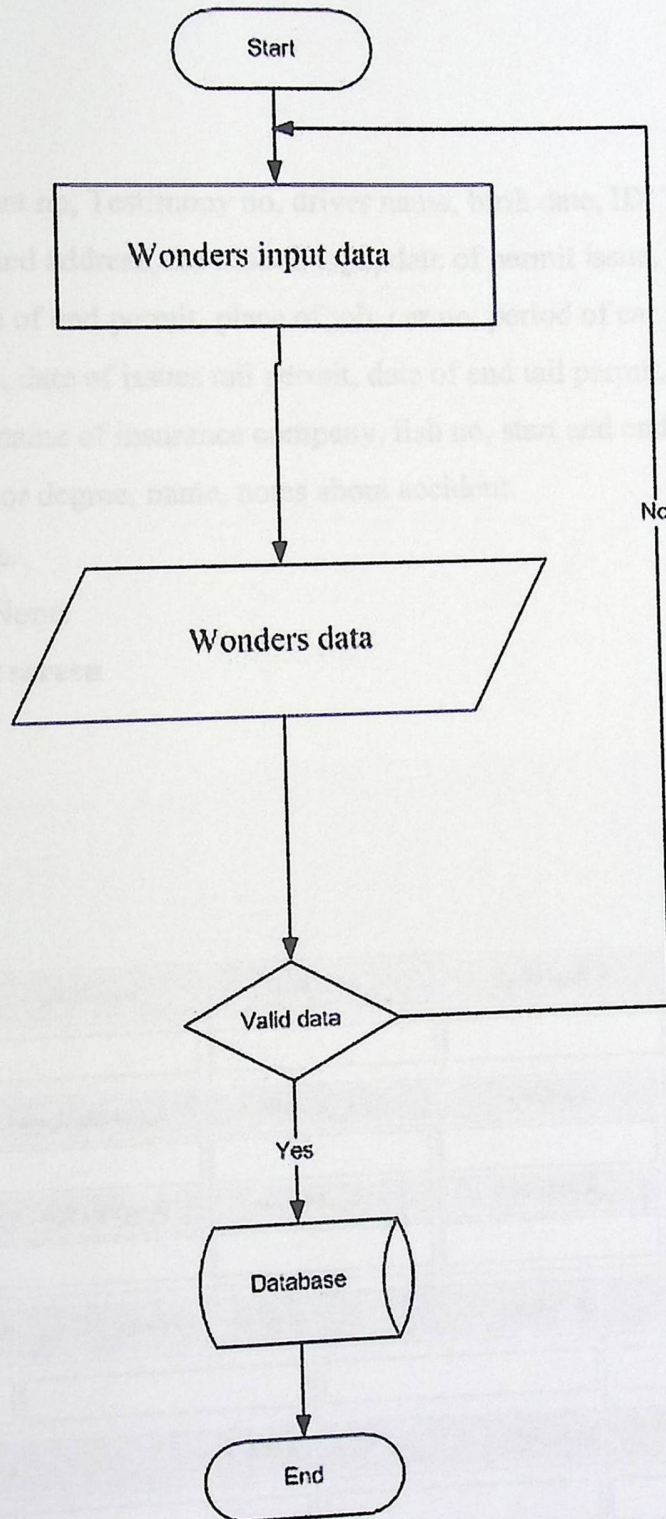


Figure (3.4) wonder information flowchart

- **Information about driver.**

For each Police department can insert information about Driver how make the accident.

a) **Interface**

**Input:** Accident no, Testimony no, driver name, birth date, ID, Tel no, job, current and fixed address, car model, type, date of permit issue, permit no, degree of permit, date of end permit, place of job, car no, period of car permit, color of the car, tail no, date of issues tail permit, date of end tail permit, tail model, name of company, name of insurance company, fish no, start and end date of fish, date, place, inquisitor degree, name, notes about accident.

**Output:** None.

b) **Constraint:** None.

c) **Input/output screen**

				الاسم الشخصي
تاريخ الولادة	رقم الهوية / الجواز	المهنة	العنوان الحالي	العنوان الدائم
موديل المركبة	رقم الهاتف	رقم رخصة القيادة	تاريخ اصدار الرخصة	مكان العمل
نوع المركبة	رقم خائف العمل	درجة الرخصة	تاريخ انتهاء الرخصة	-----
رقم المركبة	رقم القاطره	تاريخ انتهاء رخصة القاطره	الشركه المنسوب	
سرجان رخصة المركبة	لون الوريكه	رقم القاطره	رخصة مطورة	

Figure (3.5) driver information screen

d) Data flow chart

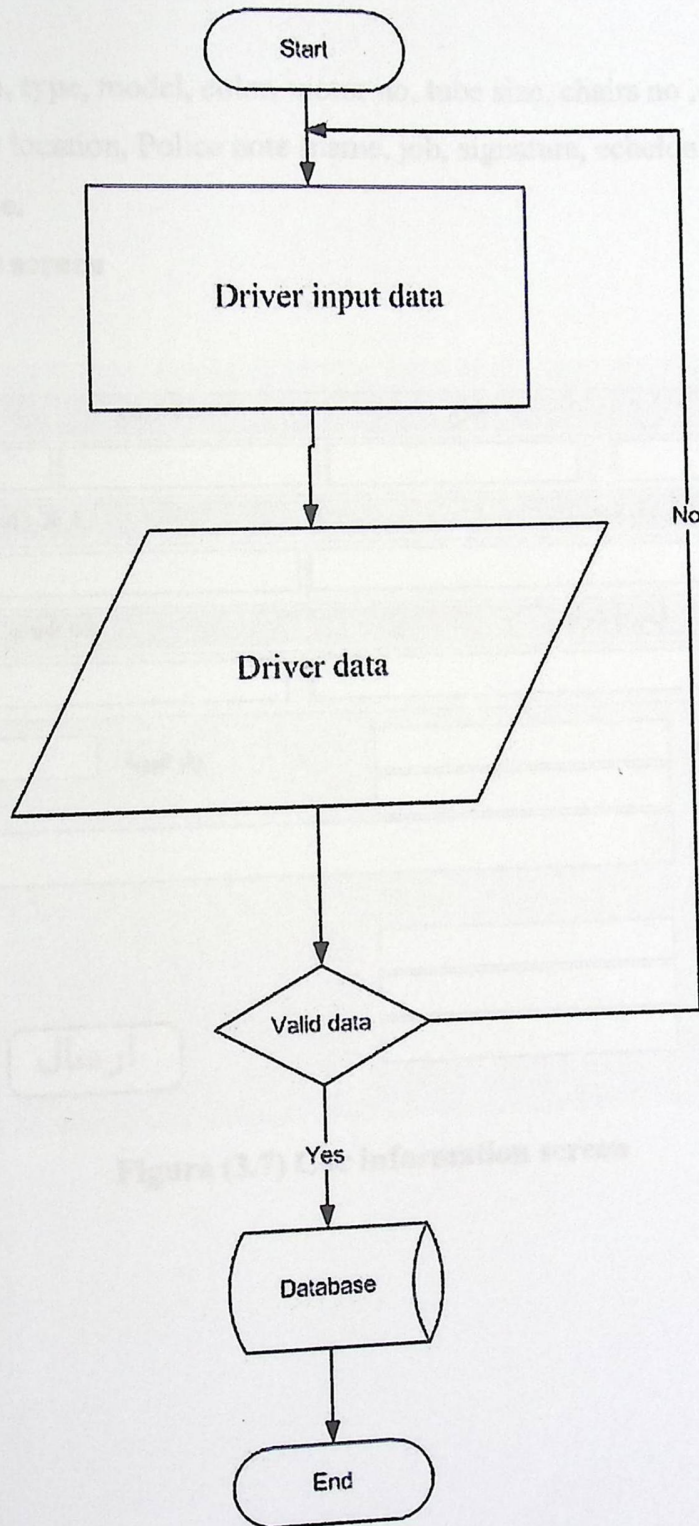


Figure (3.6) driver flowchart

- Information about cars.

For each Police department can add information about car related to the accident.

a) Interface

**Input:** Car no, type, model, color, motor no, tube size, chairs no ,owner name, owner id, live location, Police note (name, job, signature, echelon)

**Output:** None.

b) Input/output screen

لون المركبة	سنة الانتاج	النوع	رقم المركبة
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
رقم المحرك		رقم الشاصي	
<input type="text"/>		<input type="text"/>	
عدد المقاعد		قياس الاطارات	
<input type="text"/>		<input type="text"/>	
<input type="text"/>	رقم الهوية	<input type="text"/>	صاحب المركبة
		<input type="text"/>	مكان السكن
<input type="text"/>		<input type="text"/>	ملاحظات الخبير
		<input type="text"/>	مبلغ التعويض
		<input type="text"/>	الاسم
		<input type="text"/>	الرتبة
		<input type="text"/>	الهوية

Figure (3.7) Car information screen

c) Data flow chart

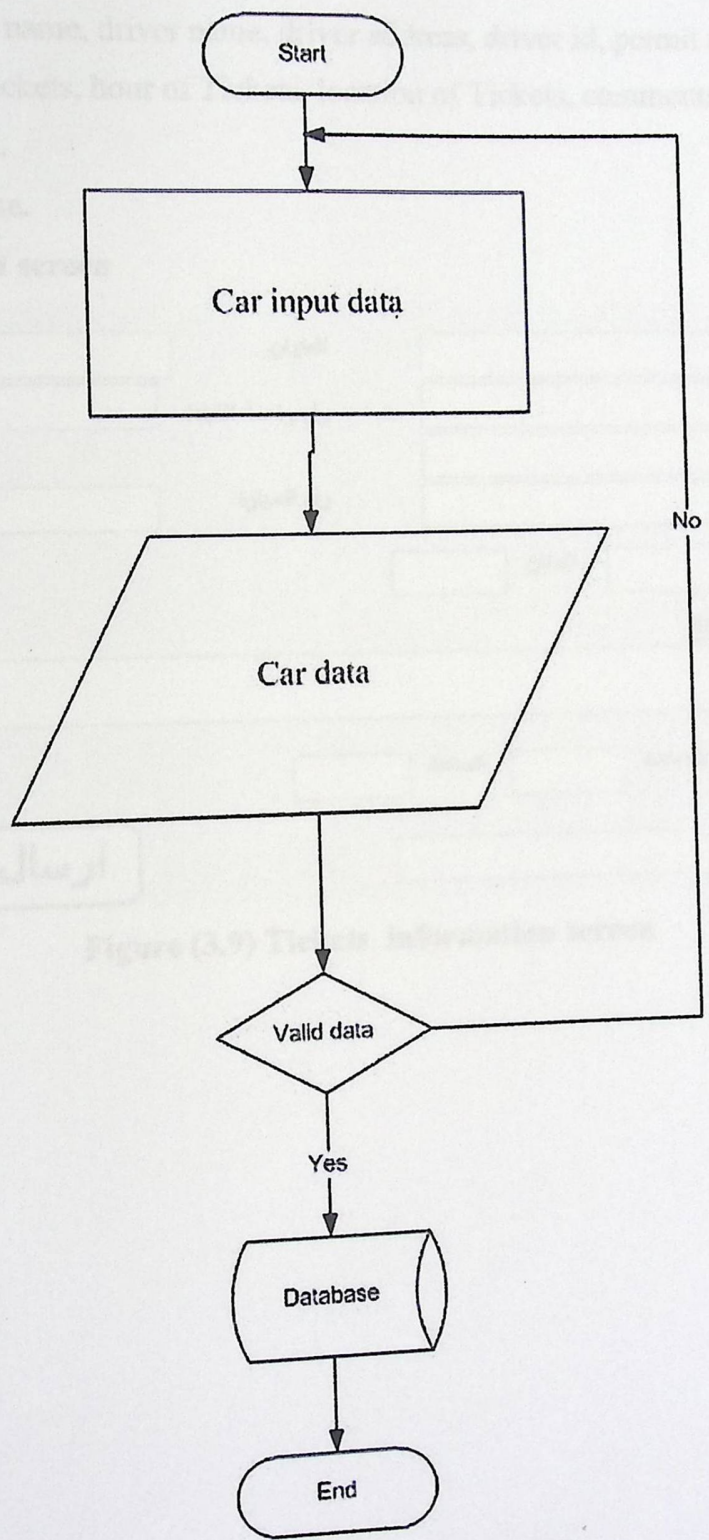


Figure (3.8) Car flowchart

### 3. Add information about Tickets

- a) **Interface:** For each Police department can add information about Tickets.
- b) **Input:** Court name, driver name, driver address, driver id, permit no ,car type, car no, date of Tickets, hour of Tickets, location of Tickets, comments about Tickets, date of Court.
- c) **Output:** None.
- d) **Input/output screen**

The screenshot displays a form for adding ticket information. The fields are arranged as follows:

- Top row: A text box for 'العنوان' (Address) and a dropdown menu for 'اسم المحكمة' (Court Name).
- Second row: A text box for 'رقم رخصة القيادة' (Driver License No.) and a text box for 'اسم السائق' (Driver Name).
- Third row: A text box for 'رقم السيارة' (Car No.) and a text box for 'رقم الهوية' (ID No.).
- Fourth row: A text box for 'نوع السيارة' (Car Type) and a text box for 'ساعة/دقيقة' (Hour/Minute).
- Fifth row: A large text area for 'تفاصيل المخالفة' (Violation Details).
- Sixth row: A text box for 'الساعة' (Hour) and a text box for 'تاريخ حضور المحكمة' (Court Appearance Date).
- Bottom row: A text box for 'اسم الشرطي' (Officer Name) and a button labeled 'ارسال' (Send).

Figure (3.9) Tickets information screen

e) Data flow chart

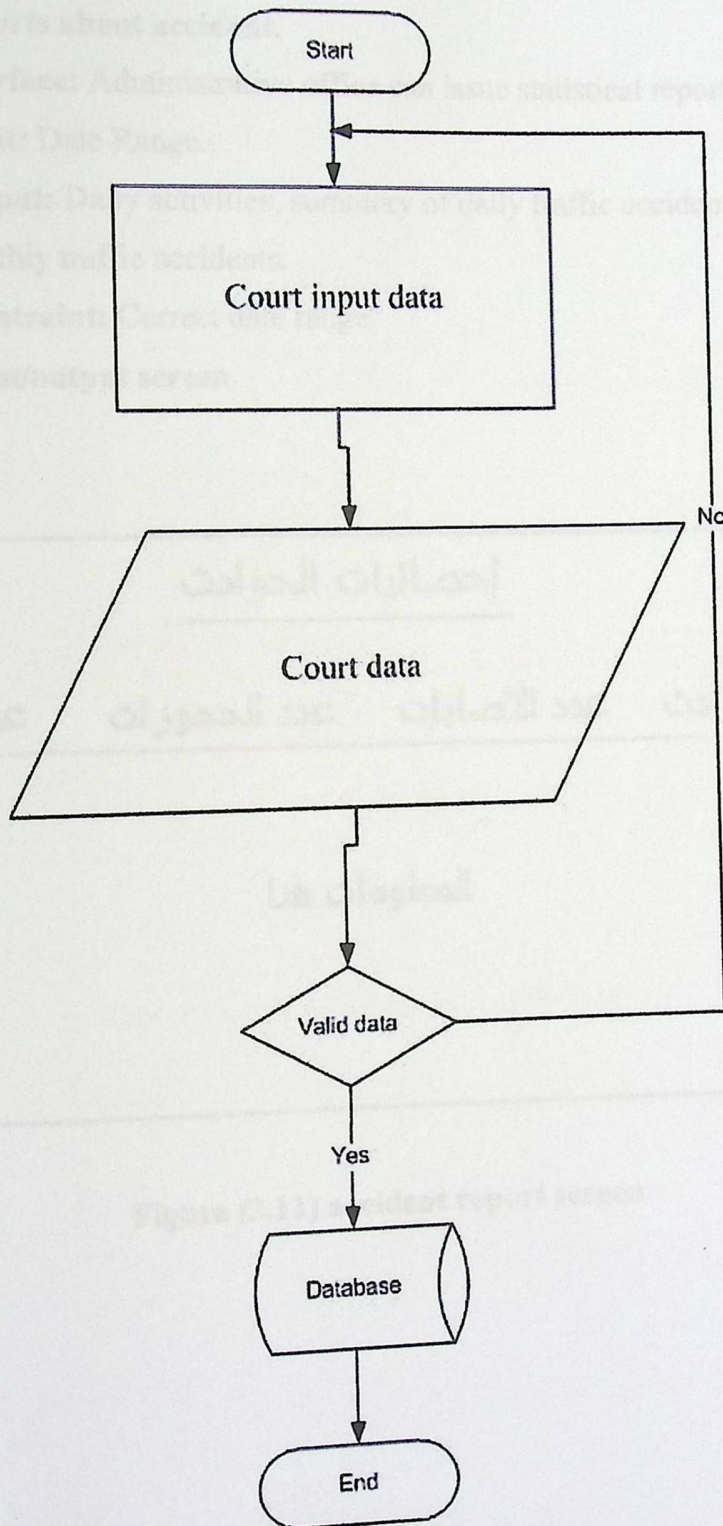


Figure (3.10) Tickets flowchart

## 4. Issue immediate reports about

## • Statistical reports.

## A. Reports about accident.

a) **Interface:** Administrative office can issue statistical report.**Input:** Date Range.**Output:** Dally activities, summary of dally traffic accidents, summary of monthly traffic accidents.b) **Constraint:** Correct date range.c) **Input/output screen**

احصائيات الحوادث			
عدد السيارات	عدد الحجزات	عدد الاصابات	عدد الحوادث
المعلومات هنا			

Figure (3.11) accident report screen

## d) Data flow chart

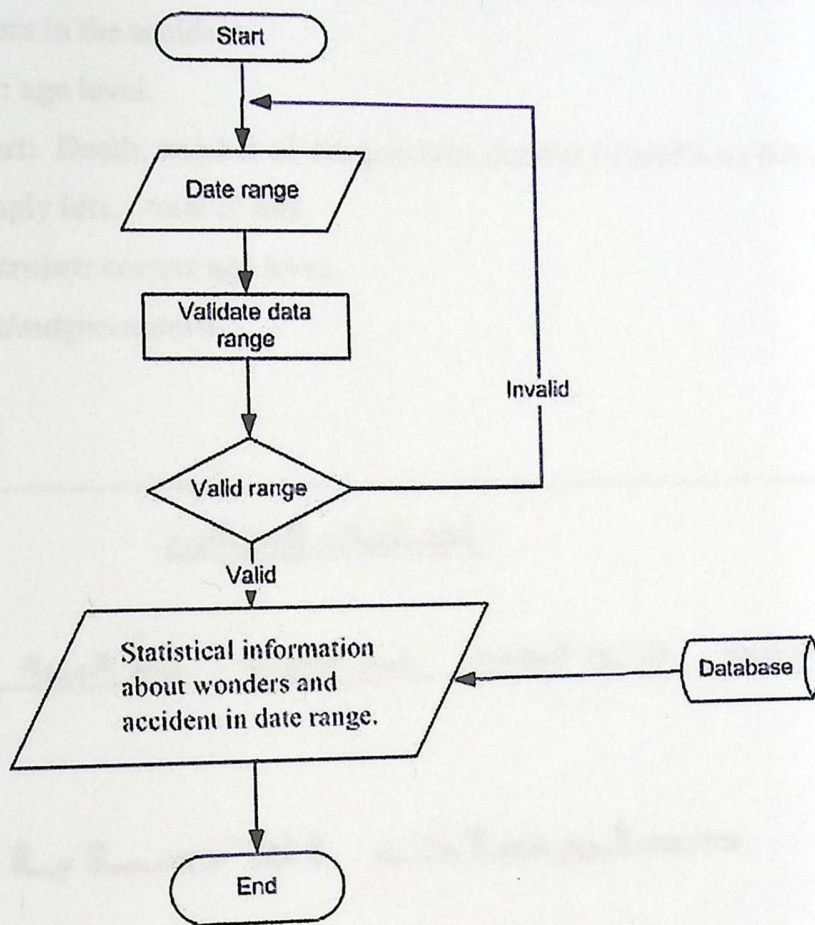


Figure (3.12) Accident report flowchart

**B. Report about wonders.**

a) **Interface:** For administrative office can issue statistical information about wonders in the accident.

**Input:** age level.

**Output:** Death, number of dangers hits, number of mediums hits, number of simply hits, total of hits.

b) **Constraint:** correct age level.

c) **Input/output screen**

<u>احصائيات المصابين</u>				
رقم الحادث	تاريخ الحادث	اسم العصب	رقم الهوية	حجم الاصابة
<b>معلومات الاصابات</b>				

Figure (3.13) Wonder report screen

## d) Data flow chart

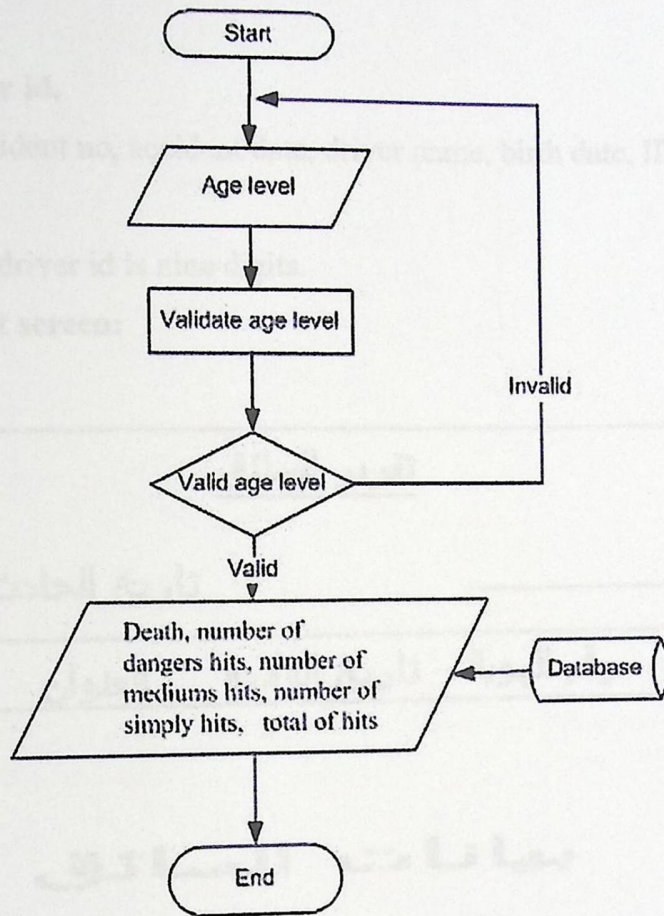


Figure (3.14) Wonder report flowchart

- Issue driver report.

a) **Interface:** For administrative office can issue information about driver in the accident

**Input:** Driver id.

**Output:** Accident no, accident date, driver name, birth date, ID, address, car number.

b) **Constraint:** driver id is nine digits.

c) **Input/output screen:**

تقرير السائق				
رقم الحادث	_____	تاريخ الحادث	_____	
اسم السائق	رقم الهوية	تاريخ الولادة	العنوان	رقم السيارة
بيانات السائق				

Figure (3.15) Driver report screen

## d) Data flow chart

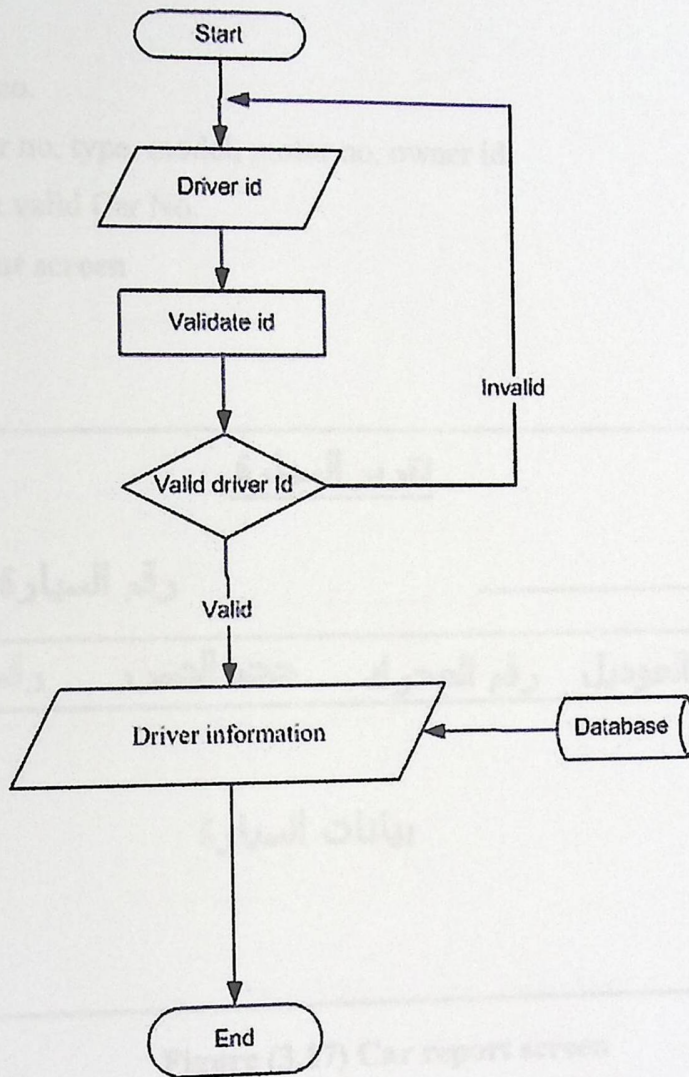


Figure (3.16) Driver report flowchart

- Issue cars report.

a) **Interface:** For administrative office can issue information about car related to the accident

**Input:** Car no.

**Output:** Car no, type, model, motor no, owner id.

b) **Constraint:** valid Car No.

c) **Input/output screen**

تقرير السيارة				
رقم الحادث		رقم السيارة		
نوع السيارة	الموديل	رقم المحرك	حجم الضرر	رقم هوية المالك
بيانات السيارة				

Figure (3.17) Car report screen

## d) Data flow chart

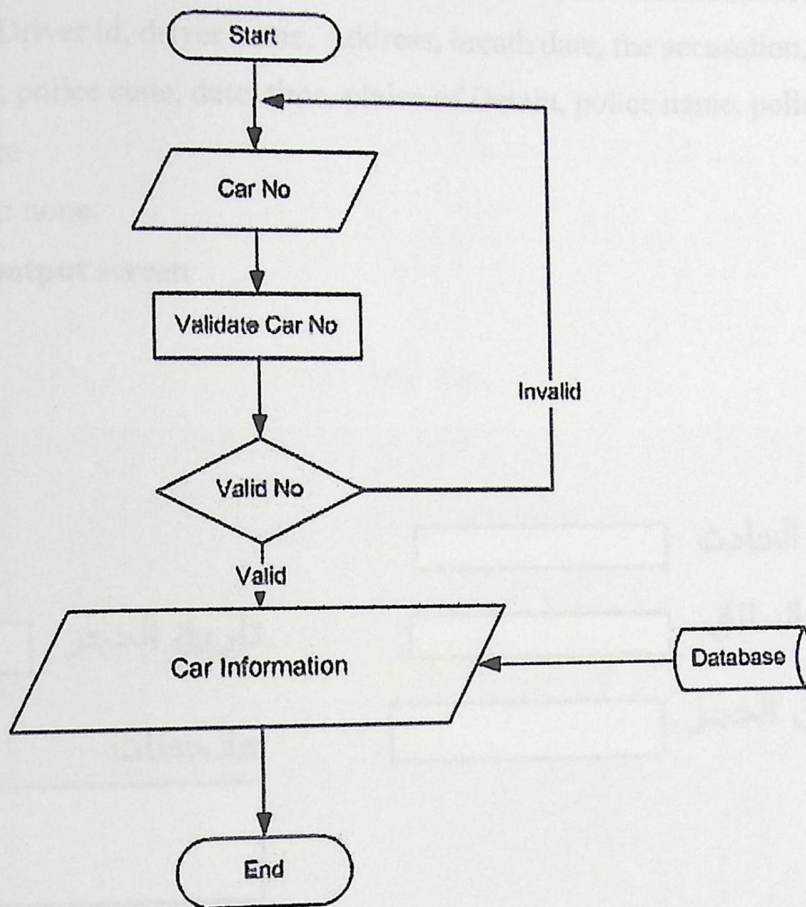


Figure (3.18) Car report flowchart

- Detain commands for drivers.

a) **Interface:** For administrative office can issue Detain commands for drivers

**Input:** Driver id, driver name, Address, breath date, the accusation, problem number, police state, date, time, plaice of Detain, police name, police echelon, signature

**Output:** none.

b) **Input/output screen**

The screenshot shows a software interface for entering detain command data. It features several input fields and a button, all with Arabic labels:

- Top right:  رقم الحادث (Incident Number)
- Middle right:  رقم السائق (Driver Number)
- Middle right:  مكان الحجز (Detention Location)
- Left side:  تاريخ الحجز (Detention Date)
- Below date:  ملاحظات (Remarks)
- Bottom right:  رقم الشرطي (Police Number)
- Bottom right:  اسم الشرطي (Police Name)
- Bottom right:  الرتبة (Rank)
- Bottom left:  (Send)

Figure (3.19) Detain command screen

## c) Data flow chart:

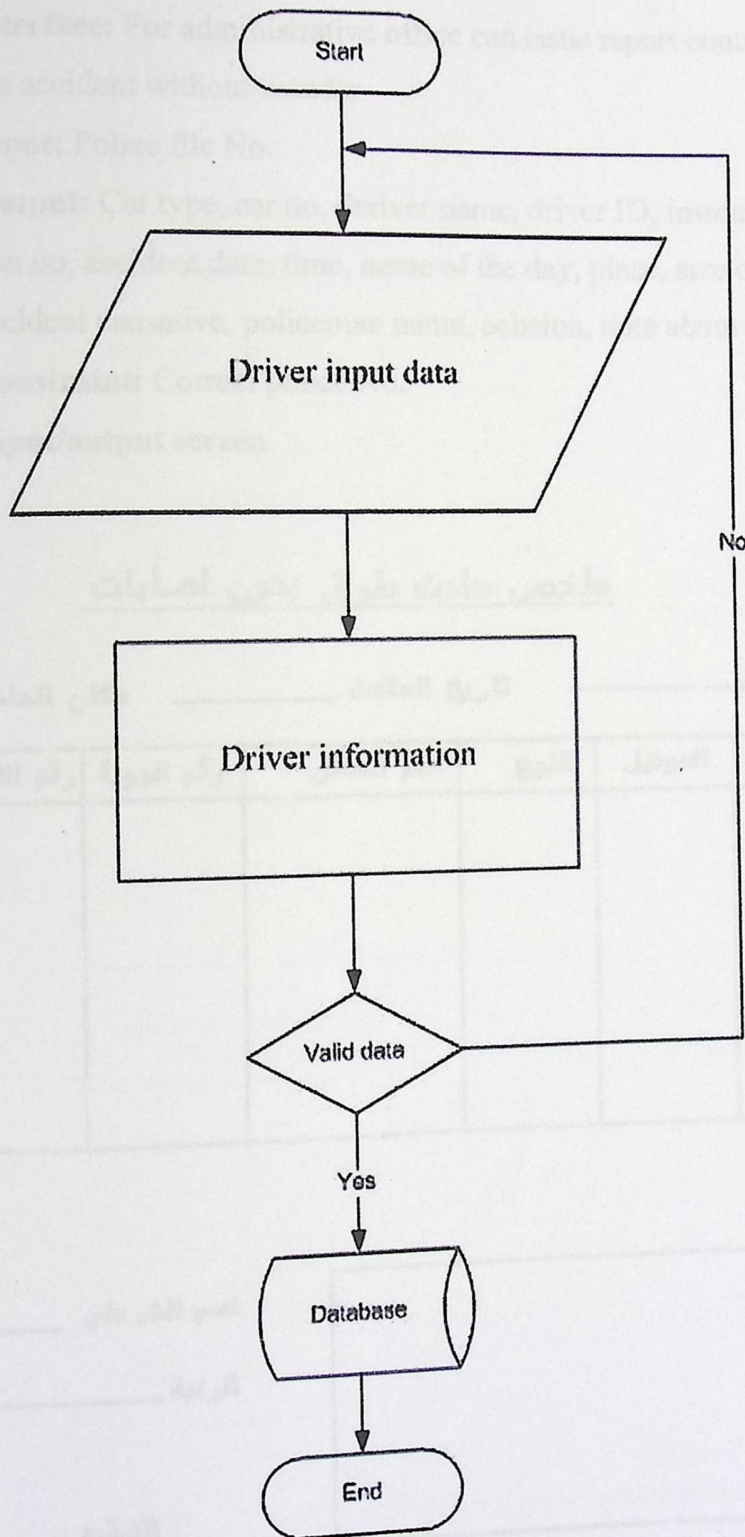


Figure (3.20) Detain command flowchart

- Summary reports about accident.
  - A. Summary report about accident without wonders.
    - a) **Interface:** For administrative office can issue report contains summary of the accident without wonder
 

**Input:** Police file No.

**Output:** Car type, car no, driver name, driver ID, insurance company, fish no, accident date, time, name of the day, place, size of the damage, accident causative, policeman name, echelon, note about the accident.
    - b) **Constraint:** Correct police No.
    - c) **Input/output screen**

### ملخص حادث طرق بدون اصابات

رقم الحادث \_\_\_\_\_ تاريخ الحادث \_\_\_\_\_ مكان الحادث \_\_\_\_\_

رقم السيارة	الموديل	النوع	اسم السائق	رقم الهوية	رقم التأمين	شركة

ملخص الحادث

اسم الشرطي \_\_\_\_\_

الرتبة \_\_\_\_\_

التوقيع \_\_\_\_\_

Figure (3.21) Accident without wonder report screen.

d) Data flow chart

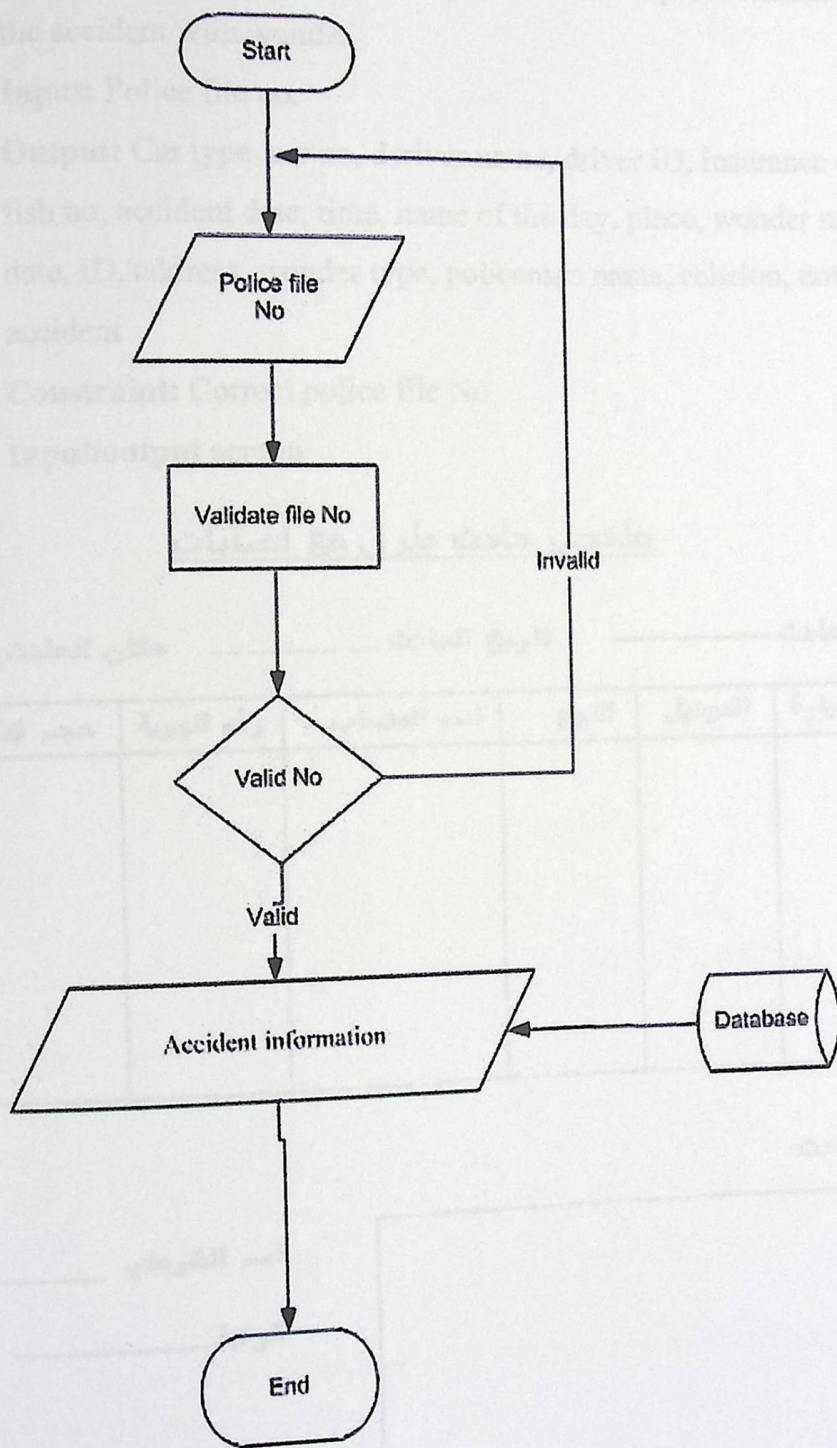


Figure (3.22) Accident without wonder report flowchart.

**B. Summary report about accident with wonders.**

a) **Interface:** For administrative office can issue report contains summary of the accident with wonder.

**Input:** Police file no.

**Output:** Car type, car no, driver name, driver ID, insurance company, fish no, accident date, time, name of the day, place, wonder name, birth date, ID, address, wonder type, policeman name, echelon, note about the accident

b) **Constraint:** Correct police file No

c) **Input/output screen**

ملخص حادث طرق مع اصابات

رقم الحادث \_\_\_\_\_ تاريخ الحادث \_\_\_\_\_ مكان الحادث \_\_\_\_\_

رقم السيارة	العوديل	النوع	اسم العصاب	رقم الهوية	حجم الاصابة

ملخص الحادث

اسم الشرطي \_\_\_\_\_

الرتبة \_\_\_\_\_

التوقيع \_\_\_\_\_

Figure (3.23) Accident with wonder report screen.

d) Data flow chart

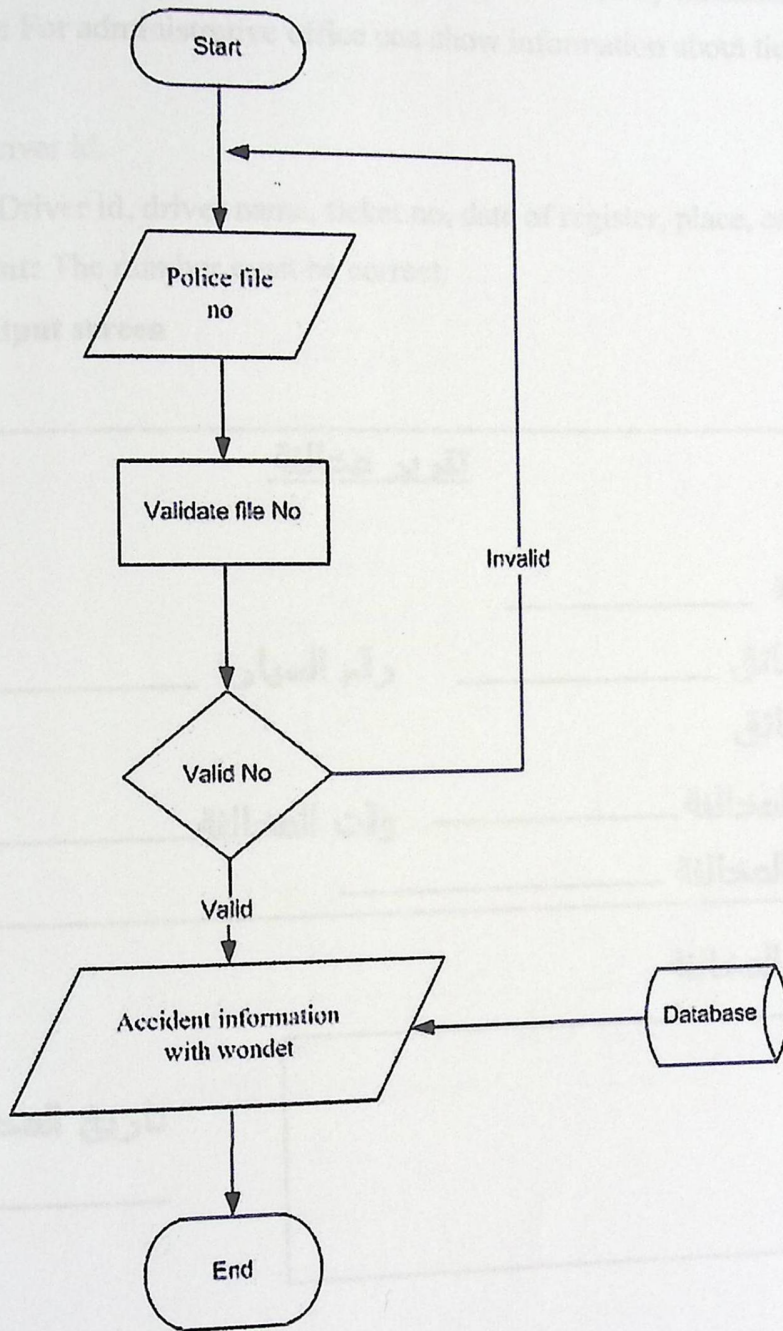


Figure (3.24) Accident with wonder report flowchart.

5. Show information about ticketed drivers and there cars by administrator.
- a) **Interface:** For administrative office can show information about tickets for driver.
- Input:** Driver id.
- Output:** Driver id, driver name, ticket no, date of register, place, car no.
- b) **Constraint:** The number must be correct.
- c) **Input/output screen**

تقرير مخالفة

المحكمة \_\_\_\_\_

رقم السائق \_\_\_\_\_

اسم السائق \_\_\_\_\_

تاريخ المخالفة \_\_\_\_\_

وقت المخالفة \_\_\_\_\_

مكان المخالفة \_\_\_\_\_

---

ملخص المخالفة

اسم الشرطي \_\_\_\_\_

الرتبة \_\_\_\_\_

تاريخ المحكمة \_\_\_\_\_

Figure (3.25) Ticketed information screen.

d) Data flow chart

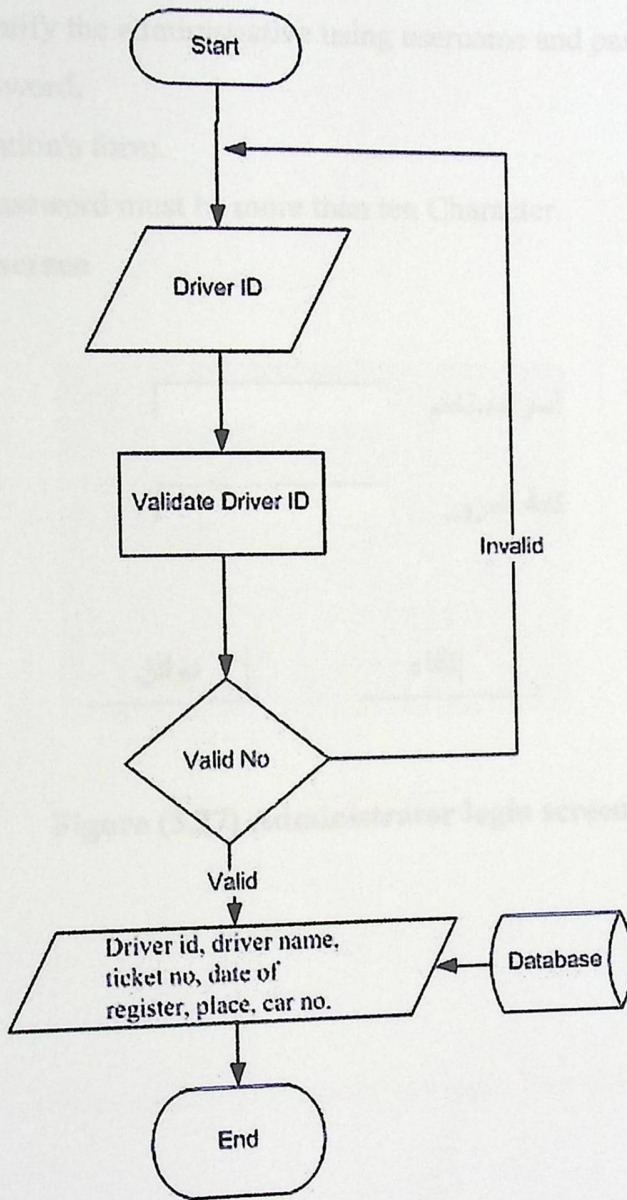


Figure (3.26) Ticketed information flowchart.

6. Add, delete, and update user account (department member) by administrator.
- Login in administrator.
    - a) **Interface:** Identify the administrative using username and password  
**Input:** Id, password.  
**Output:** Operation's form.
    - b) **Constraint:** Password must be more than ten Character.
    - c) **Input/output screen**

اسم المستخدم

كلمة المرور

موافق

إلغاء

Figure (3.27) Administrator login screen.

d) Data flow chart

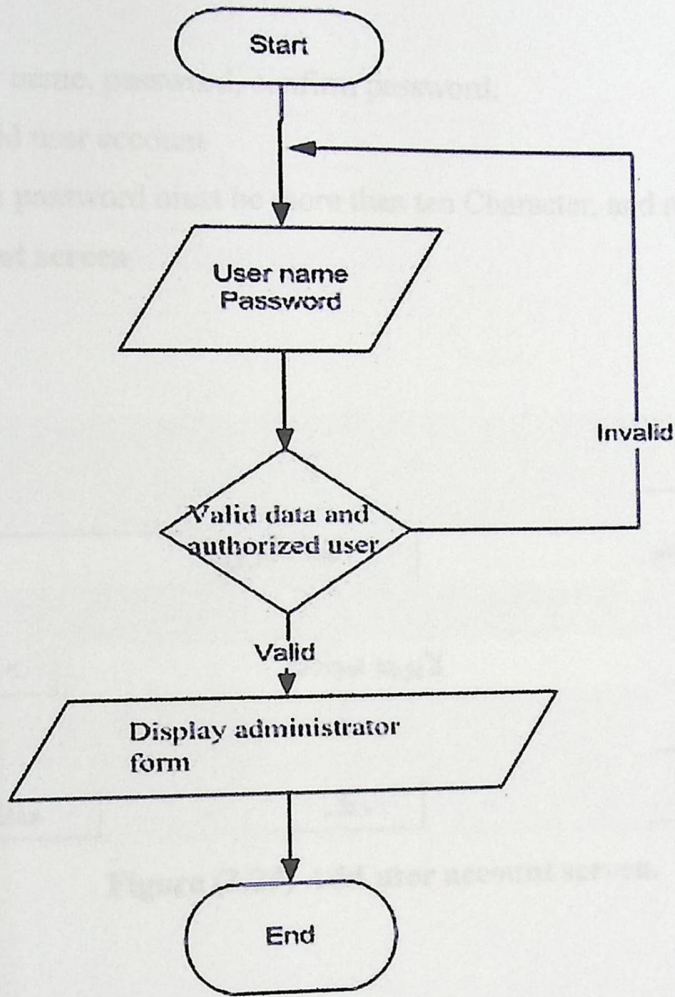


Figure (3.28) Administrator login flowchart.

- Add user account.

a) **Interface:** The administrator can give privileges to users by user name and password

**Input:** User name, password, confirm password.

**Output:** Add user account

b) **Constraint:** password must be more than ten Character, and must be only.

c) **Input/output screen**

The screenshot shows a user interface for adding a new user account. It includes two text input fields: one for the user's name (labeled 'اسم المستخدم') and one for the password (labeled 'كلمة المرور'). Below the password field, there is a status bar with navigation arrows (left and right) and the text 'لا يوجد سجلات' (No records). At the bottom of the screen, there are four buttons: 'حفظ' (Save), 'حذف' (Delete), 'الغاء' (Cancel), and 'الغاء الكل' (Cancel All). A 'جديد' (New) button is located at the top right of the form area.

Figure (3.29) Add user account screen.

d) Data flow chart

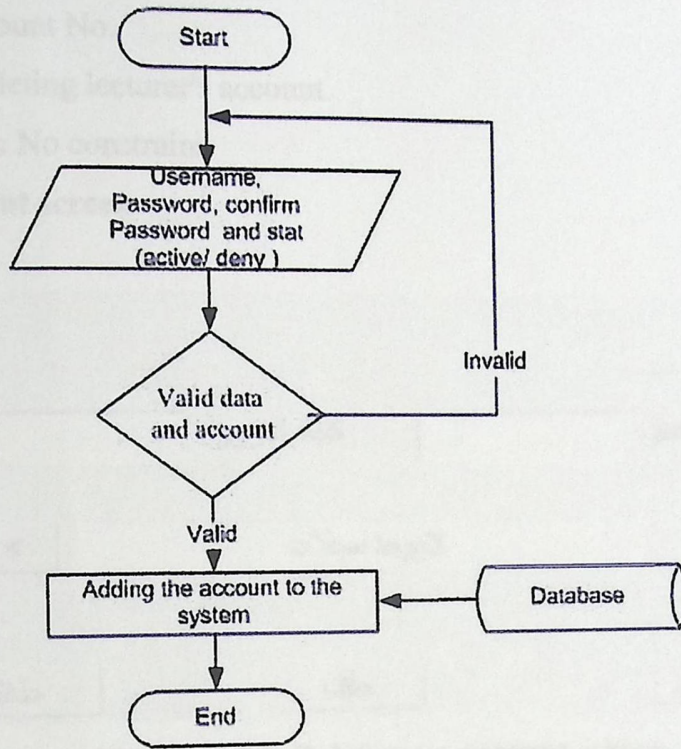


Figure (3.30) Add user account flowchart.

- Delete user account.
- a) **Interface:** The administrative can delete user account from database  
**Input:** Account No.  
**Output:** deleting lecturer's account.
- b) **Constraint:** No constrains
- c) **Input/output screen**

		جديد	
كلمة المرور		اسم المستخدم	
<<	<	لا يوجد سجلات	> >>
		الغاء	
حفظ	حذف	الغاء الكل	

Figure (3.31) Delete user account screen.

- Delete user account.

a) **Interface:** The administrative can delete user account from database

**Input:** Account No.

**Output:** deleting lecturer's account.

b) **Constraint:** No constrains

c) **Input/output screen**

		جديد	
كلمة المرور		اسم المستخدم	
<<	<	لا يوجد سجلات	> >>
		الغاء	
حفظ	حذف	الغاء الكل	

Figure (3.31) Delete user account screen.

d) Data flow chart

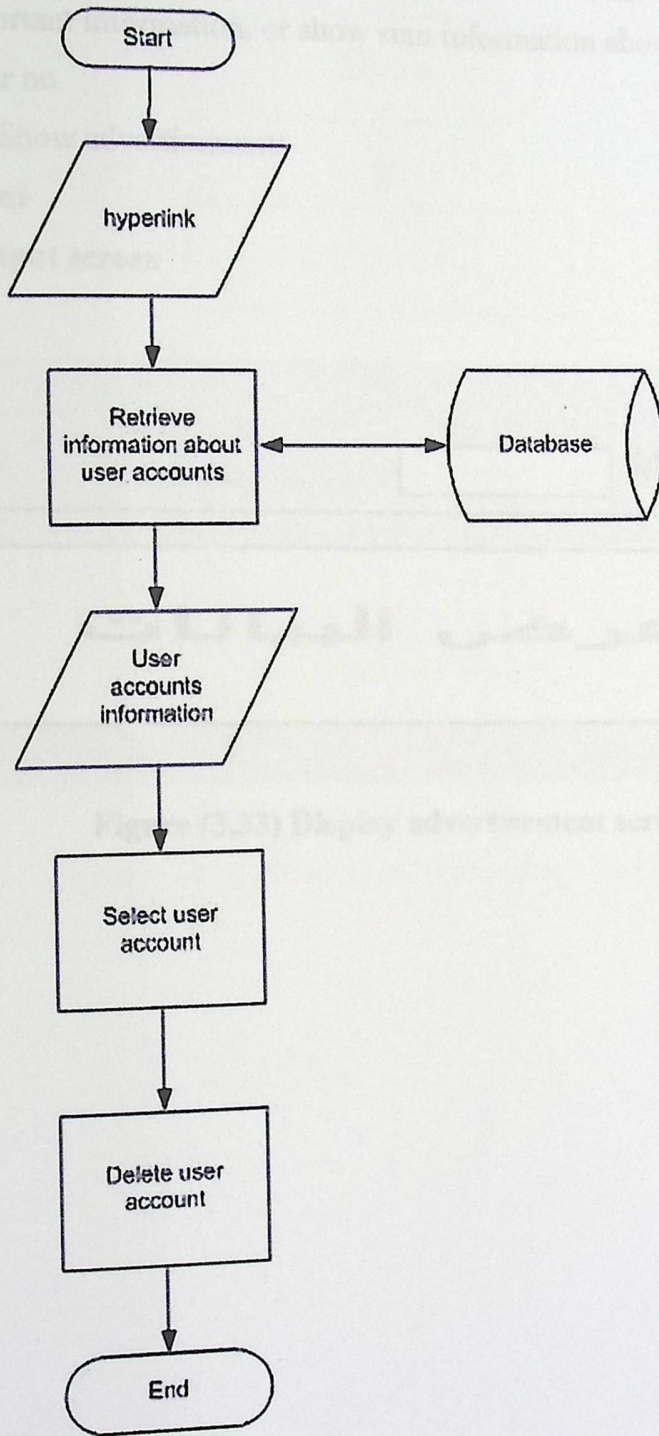


Figure (3.32) Delete user account flowchart.

**7. View Advertisement Page.**

a) **Interface:** Any department can view advertisements page and help center office with important information, or show sum information about illegal driver.

**Input:** car no.

**Output:** Show advertisements

b) **Constraint**

c) **Input/output screen**

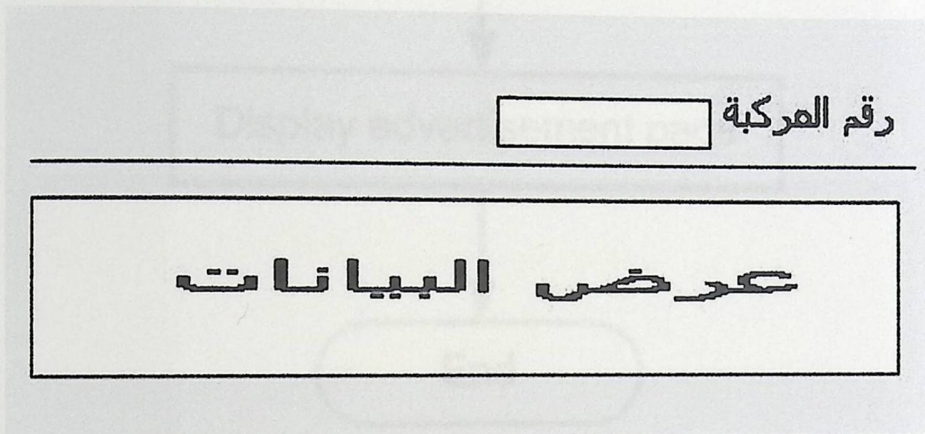


Figure (3.33) Display advertisement screen.

## d) Data flow chart

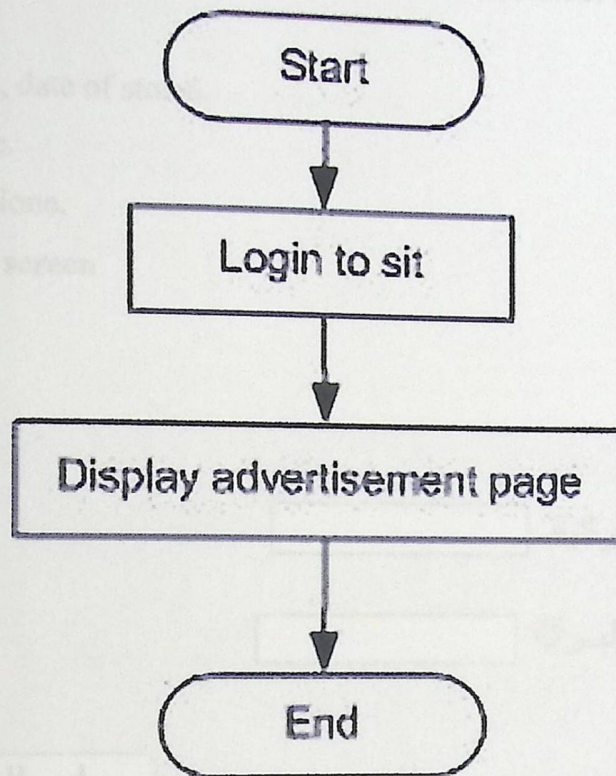


Figure (3.34) Display advertisement flowchart.

## 8. Add New Stolen Car.

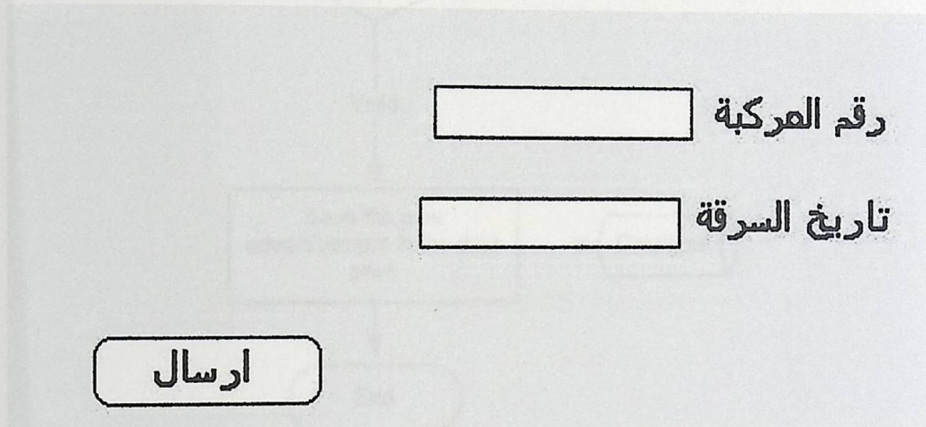
- a) **Interface:** Administrator can add new advertisement about (stolen cars and illegal cars).

**Input:** Car no, date of stolen.

**Output:** None.

- b) **Constraint:** None.

- c) **Input/output screen**



The screenshot shows a web form with two input fields. The first field is labeled 'رقم المركبة' (Car Number) and the second field is labeled 'تاريخ السرقة' (Date of Theft). Below these fields is a button labeled 'ارسال' (Send).

Figure (3.35) Add new advertisement screen.

## d) Data flow chart

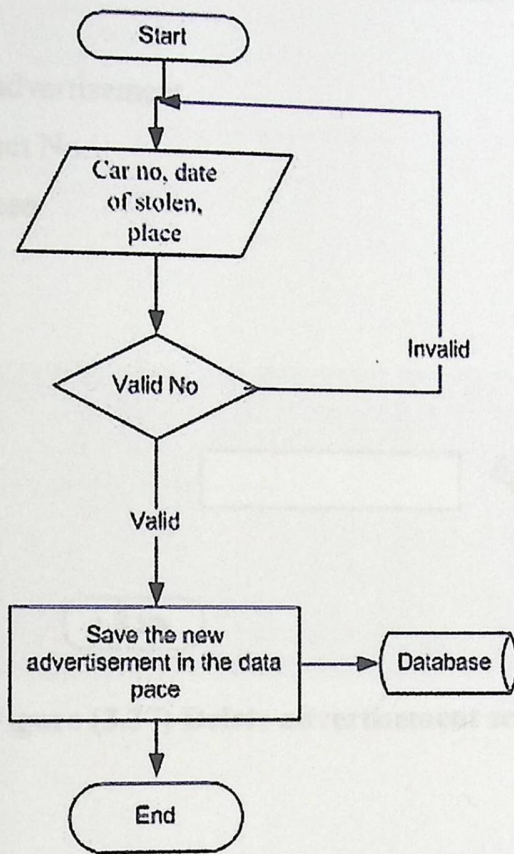


Figure (3.36) Add new advertisement flowchart.

## 9. Delete Stolen Car.

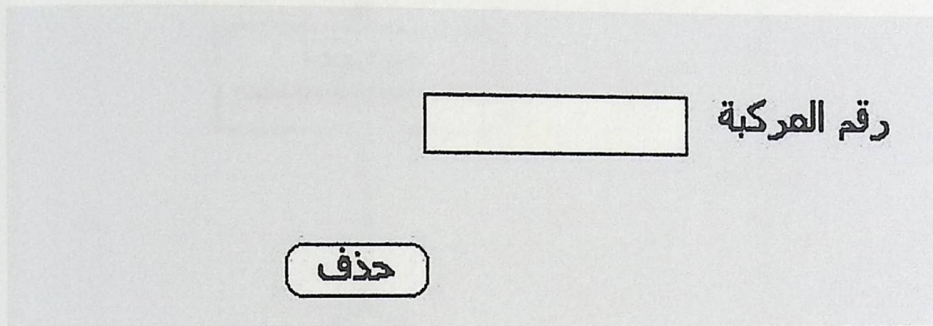
a) **Interface:** Administrator can delete advertisement from the database.

**Input:** Car No.

**Output:** Deleted advertisement.

b) **Constraint:** Correct No.

c) **Input/output screen**



The screenshot shows a light gray rectangular area representing the user interface. At the top right, there is a text label 'رقم المركبة' (Car No.) in Arabic. To its left is a rectangular input field. Below the input field, centered, is a button with a rounded rectangular shape containing the Arabic word 'حذف' (Delete).

Figure (3.37) Delete advertisement screen.

## d) Data flow chart

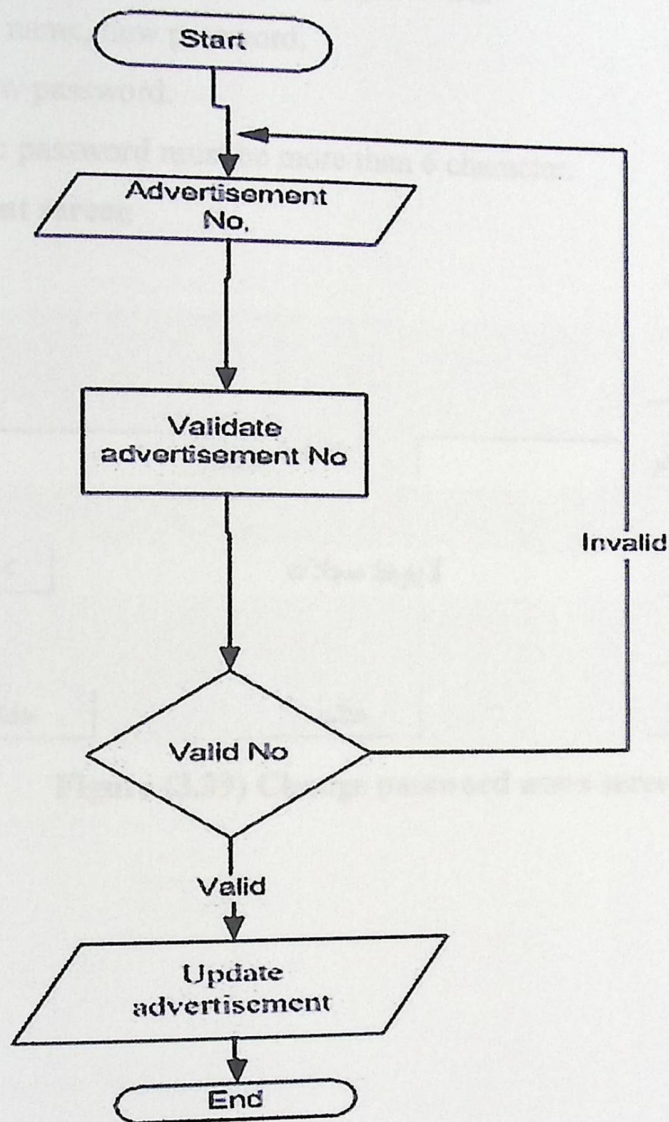


Figure (3.38) Delete advertisement flowchart.

## 10. Change password

a) **Interface:** Administrator can change password.

**Input:** user name, new password.

**Output:** new password.

b) **Constraint:** password must be more than 6 character.

c) **Input/output screen**

The screenshot shows a web-based interface for password management. At the top right is a 'جديد' (New) button. Below it are two input fields: 'اسم المستخدم' (User Name) and 'كلمة المرور' (Password). A 'حفظ' (Save) button is located at the bottom left. In the center, a message 'لا يوجد سجلات' (No records found) is displayed, with navigation arrows '<<', '<', '>', and '>>' on either side. At the bottom right, there are buttons for 'الغاء' (Cancel) and 'الغاء الكل' (Cancel All). A 'حذف' (Delete) button is also visible at the bottom center.

Figure (3.39) Change password users screen.

## d) Data flow chart:

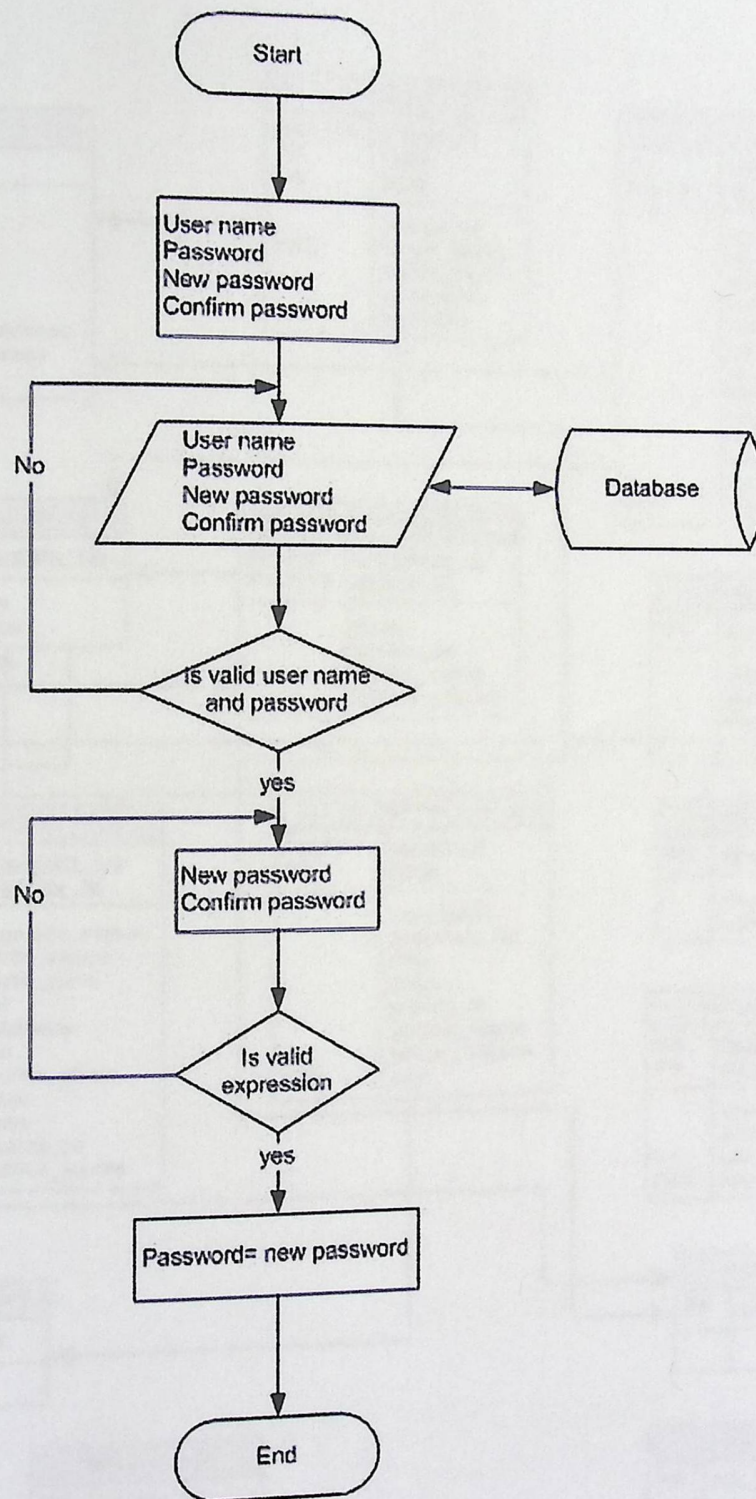


Figure (3.40) Change password for users flowchart.

### 3.3 Database design:

#### 3.3.1. Database Model

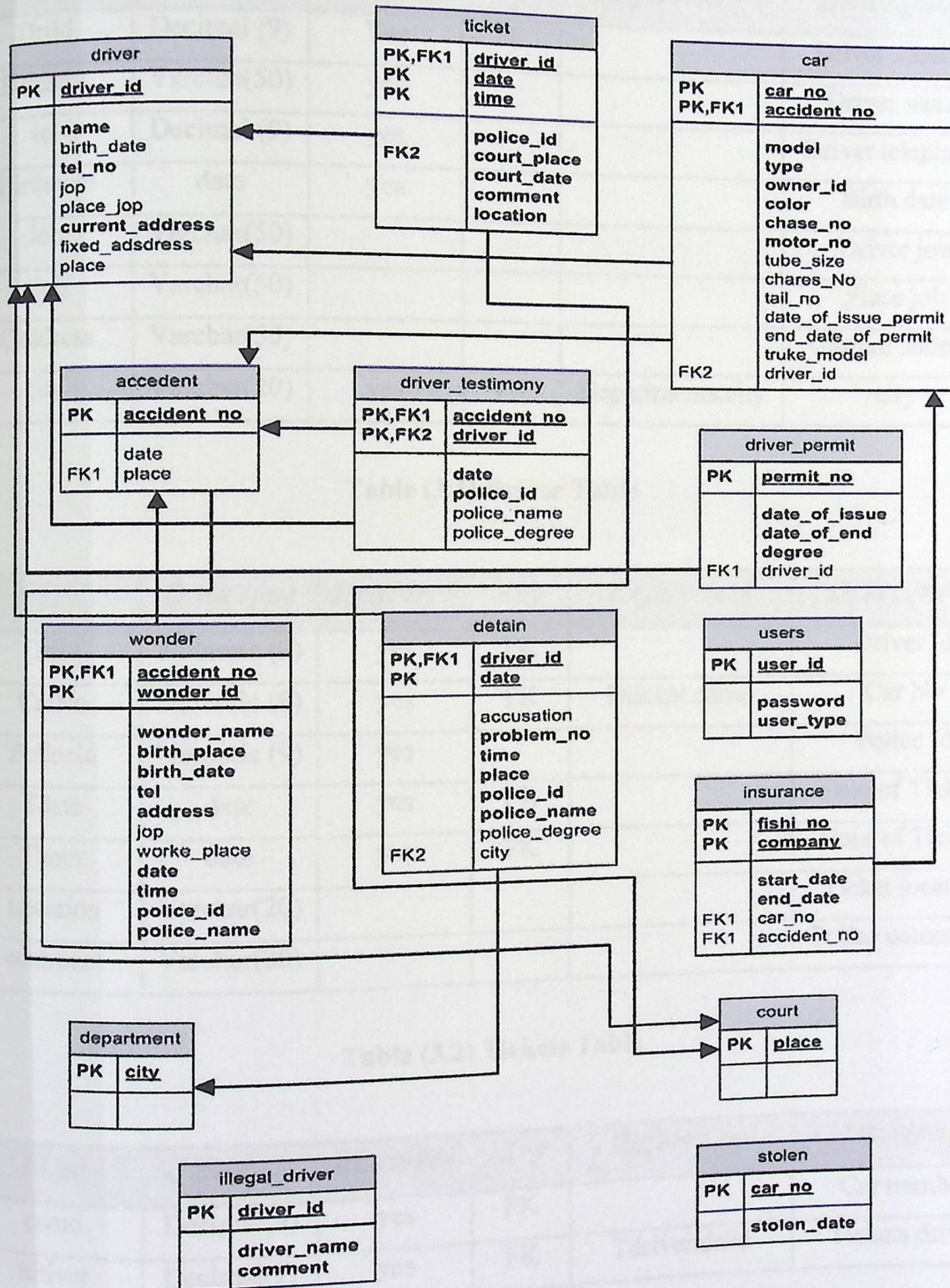


Figure (3.41) database Model

## 3.3.2. Database table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
DriId	Decimal (9)	Yes	PK		Driver number
Driname	Varchar(50)	yes			Driver name
tel	Decimal (9)	yes			Driver telephone
Birthdate	date	yes			Birth date
Job	Varchar(50)				Driver job
pjob	Varchar(50)				Place job
Caddress	Varchar(50)				Currant address
city	Varchar(20)	yes	FK	Departments.city	city

Table (3.1) Driver Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
DriId	Numeric (9)	yes	PK		Driver Id
CarNo	Numeric (8)	yes	FK	Dticket.carno	Car No
PoliceId	Numeric (9)	yes			Police Id
Tdate	date	yes	PK		Date of Tickets
Thour	date	yes	PK		Hour of Tickets
Location	Varchar(20)				Ticket location
comment	Varchar(20)				Police comments

Table (3.2) Tickets Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
carno	Decimal(9)	yes	PK		Car number
tdriver	Decimal(9)	yes	FK	Tdriver.driid	Tickets driver

Table (3.3) Tickets car Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
Driverid	Decimal(9)	yes	PK,FK	Tickets.driid	driverID
Driver name	vvarchar(50)	yes			Driver name
address	vvarchar(20)	yes			Driver adress

Table (3.4) Tickets driver Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
Cname	Vvarchar(20)	yes	PK		City name

Table (3.5) Departments Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
carModel	date	Yes			Car model
CarType	Vvarchar(20)	yes			Car Type
CarNo	Decimal(9)	yes	PK		Car No
Driid	Decimal(9)	yes	FK	Driver.driid	Driver Id
CColor	Vvarchar(20)				Car color
ChasiNo	Decimal(9)				Body car number
MotorNo	Decimal(9)				Motor number
TubeSize	Numeric (4)				Tube size
TailNo	Decimal(9)				Tail Number
DTissues	date				Date Of Issues Truck Permit
CharsNO					Chars Number
DTend	date				Date Of end Truck Permit
Tmodel	Decimal(9)				Tail Model

Table (3.6) Car Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
ANo	Decimal(9)	Yes	PK		Accident number
ADate	Date	Yes			Accident date
DriNo	Decimal(9)	Yes			Driver number
place	Decimal(9)	Yes	FK	Department.city	Car number

Table (3.7) Accidents Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
Wid	Decimal(9)	Yes	PK		Wonder number
WName	Decimal(9)	yes			Wonder name
BrPlace	Decimal(9)	yes			Birth place
BrDate	Date	yes			Birth date
Acc no	Numaric(9)	yes	PK,FK	Accident.accno	Accident number
TelNo	date	yes			Telephone number
WAdd	Varchar(20)				Wonder address
WJob	Varchar(20)				Wonder job
WWPlace	Varchar(20)				wonder work place
WDate	Varchar(20)				wonder date
WTime	Varchar(20)				wonder Time
WLocation	Varchar(20)				wonder Time

Table (3.8) Wonder Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
DriId	Numeric (9)	Yes	PK,FK	Driver.driverid	Detain Id
Accusation	Varchar(50)	yes			Problem number
PropNo	Numeric (4)	yes			Birth place
PoliceDept	Numeric (2)	yes			Police department
Date	date				Date of detain
Time	date				Time of detain
DetainLoc	Numeric (4)				Detain location
policeId	Numeric (9)				Police Id
PoliceEch	Varchar(20)				Police Echelon

Table (3.9) Detain Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
userid	Varchar(20)	Yes	PK		User id
password	Varchar(50)	yes			User password

Table (3.10) Users Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
Court	Varchar (20)	Yes	PK		Court name

Table (3.11) Court Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
DriId	Numaric(9)	Yes	PK,FK	Driver.driid	Driver Id
TDate	Date	Yes			Testimony date
PoliceName	Varchar(50)	Yes			Police Name
PoliceId	Numaric (9)	Yes			Police Id
Policedgree	Numaric(4)	yes			Police degree

Table (3.12) Driver testimony Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
CarNo	Numeric(8)	Yes	PK		Car number
DStole	date	yes	PK		Date of stole

Table (3.13) Stolen Cars Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
FishiNo	Decimal(9)	yes	PK		Fishi number
SDFishi	date	yes			Start Date Of Fishi
EDFishi	date	yes			End date of fishi
ComName	Varchar(50)	Yes			Company name
Diver ID	Decimal(9)	Yes	FK	Driver.driid	Driver ID

Table (3.14) Insurance Table

<i>Field</i>	<i>Data type</i>	<i>Required</i>	<i>Key</i>	<i>References</i>	<i>Description</i>
PermitNo	Decimal(9)	Yes	PK		Permit number
PDate	date	Yes			Date Of Permit Issue
PDegree	Decimal(9)	Yes			Degree Of Permit
PDateEnd	date	Yes			Date Of End Permit
Diver id	Decimal(9)	yes	FK	diverid	Driver ID

Table (3.15) Driver permits Table

### 3.5 Test plane

The testing processes aims to insuring that each function and requirement of the system has been done and performed as expected, then the system as hole must be tested to insure that its subsystems acts and interacts correctly to perform the desired functions of the system.

There are more than one testing processes or types to be used to achieving the testing goals, such:

- Requirements-based testing
- Integration testing
- System testing
- Acceptance testing

The following table illustrates the expected time scheduling for the different testing processes by distributing the two weeks that specified for the testing process in the feasibility study:

Expected time Testing process	First week		Second week	
Requirements-based testing				
Integration testing				
System testing				
Acceptance testing				

Figure (3.42) Test plan

## Chapter four

### Coding and implementation

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### 4.1 Introduction

In this chapter we will describe the process of coding and implementation of the system and describe the environment that we use it in these processes.

The development of our software system to work properly to meet its predetermined requirements on the internet architecture needs a set of certain software and hardware products found in a platform configured to be suitable for the deployment process.

This system is an internet application that depends on a number of technologies that need to be installed, maintained, and updated, continuously.

We also included some other applications for the user interface design such as Adobe Photoshop 8.0, and PhotoImpact XL.

This chapter describes the packages of software and hardware used in the system for the operation phase and how they are installed and prepared for work, the database and web interfacing, and the user interface implementation.

## 4.2 System Building Stage

This stage involves fixing and setting up the hardware requirements, creating the system database, and coding all system functions and requirements. An operating system must be existed such Microsoft Windows XP Professional. The hardware requirements in this stage have been described and specified at the feasibility study in system specification chapter (Chapter 1).

### 4.2.1 Setting up the hardware requirements

The hardware equipments that required in the system building stage have been described and specified at the feasibility study in system specification chapter (Chapter 1 section 1.8). These requirements and equipments must be fixing and setting up by the project team who want to develop this system.

### 4.2.2 Creating the system database

Creating the system database involves creating the relations, constrains, indexes, and keys between data entities which mean that building the database data specifications as mentioned in its dictionary which represented in the system design chapter (Chapter 3).

To creating the database we need to install a database server such the SQL server 2000 and building our database on the enterprise manager. We should consider the installation guidelines of that program that will be provided during the installation process including the system installation requirements such as Intel® or compatible computer system Pentium 166 MHz or higher, 64 MB minimum and 128 MB or more recommended memory for Enterprise Edition, 560 MB minimum Hard disk space without the database size, and 800x600 or higher monitor resolution required for the SQL Server graphical tools.<sup>1</sup>

We recommend using the SQL server 2000 since Microsoft® SQL Server™ 2000 extends the performance, reliability, quality, High Compatibility with Microsoft Visual

---

<sup>1</sup> From SQL Server help material (SQL Server Books Online)

Basic, and ease-of-use of Microsoft SQL Server version 7.0. Microsoft SQL Server 2000 includes several new features that make it an excellent database platform for large-scale online transactional processing (OLTP) and many other features.<sup>2</sup>

After successfully installed the SQL Server 2000 we can launch the Enterprise Manager and starting building our "Final project" database as shown in the following figures.

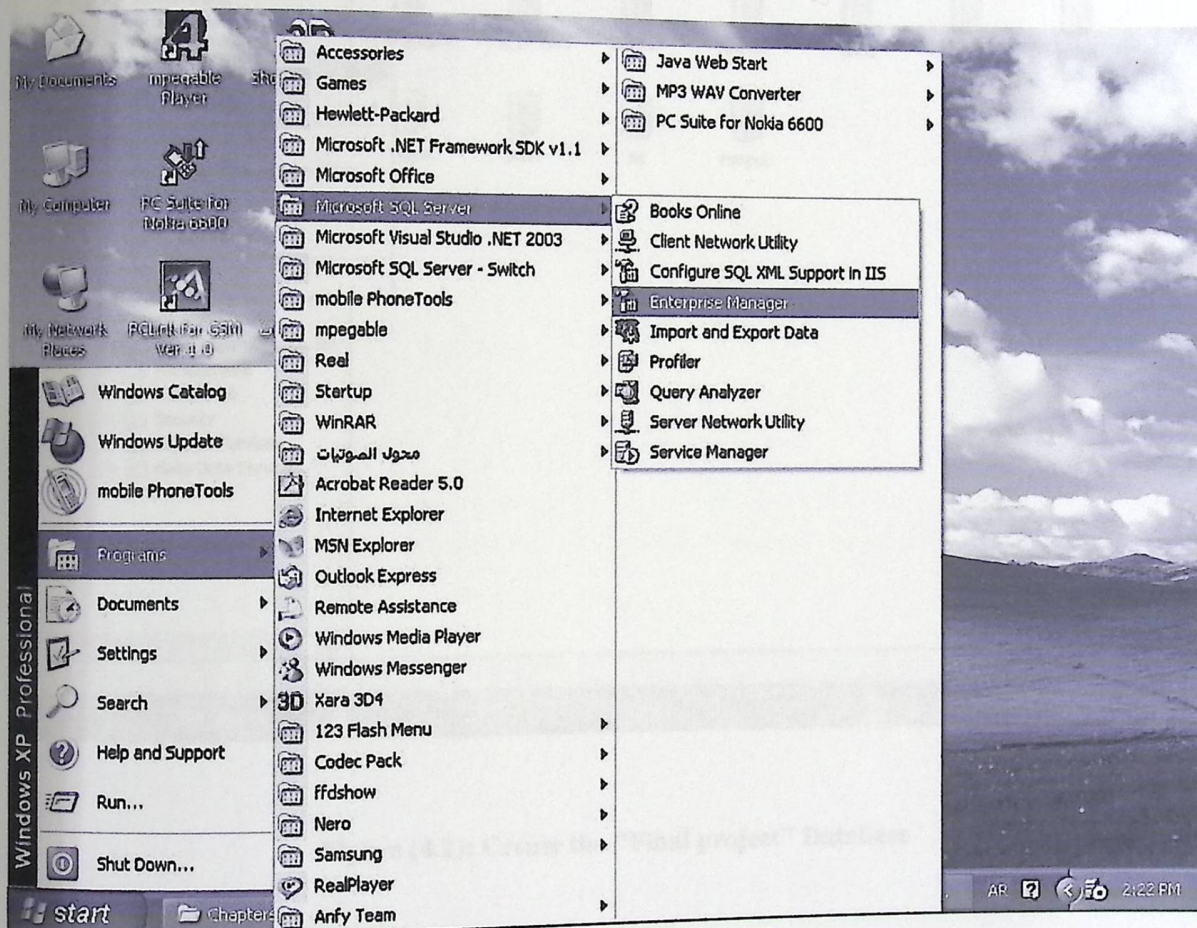


Figure (4.1): Lunching SQL Server 2000 Enterprise Manager

<sup>2</sup> The previous reference (SQL Server Books Online)

This figure after installation of SQL server, the project teams start to create a database specialist to project from during insert to Enterprise Manager from Microsoft SQL server that enables project teams to create the project database.

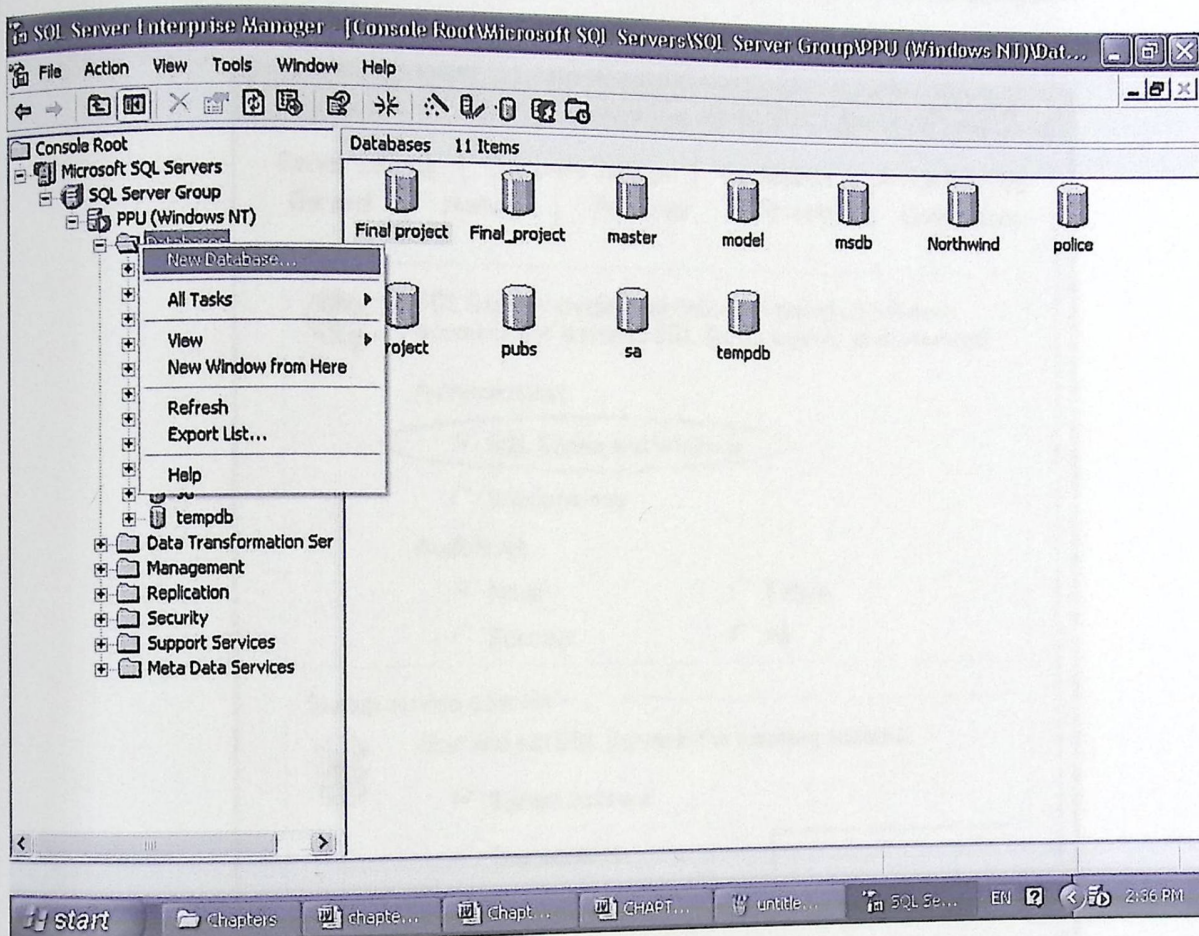


Figure (4.2): Create the "Final project" Database

### 4.2.3 SQL Server Configurations

Using the SQL Server properties was configured with the default configurations except security and authentication to determine the authentication mode; here we used the SQL server and Windows authentication mode as shown in the following figure:

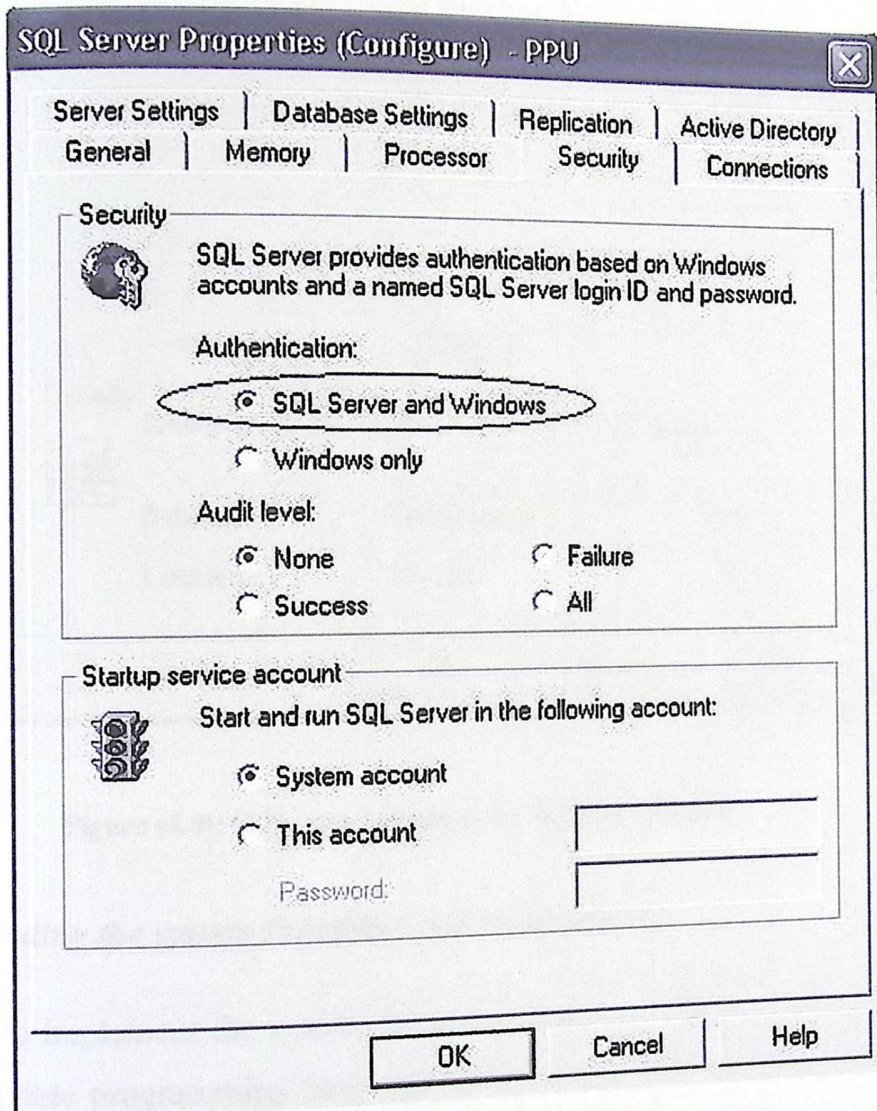


Figure (4.3): Determining the authentication mode.

Then we create a new "ASPNET" login to the "Final project" database in order to be enabled accessing data. Then give the "ASPNET" user a full access of the Database.

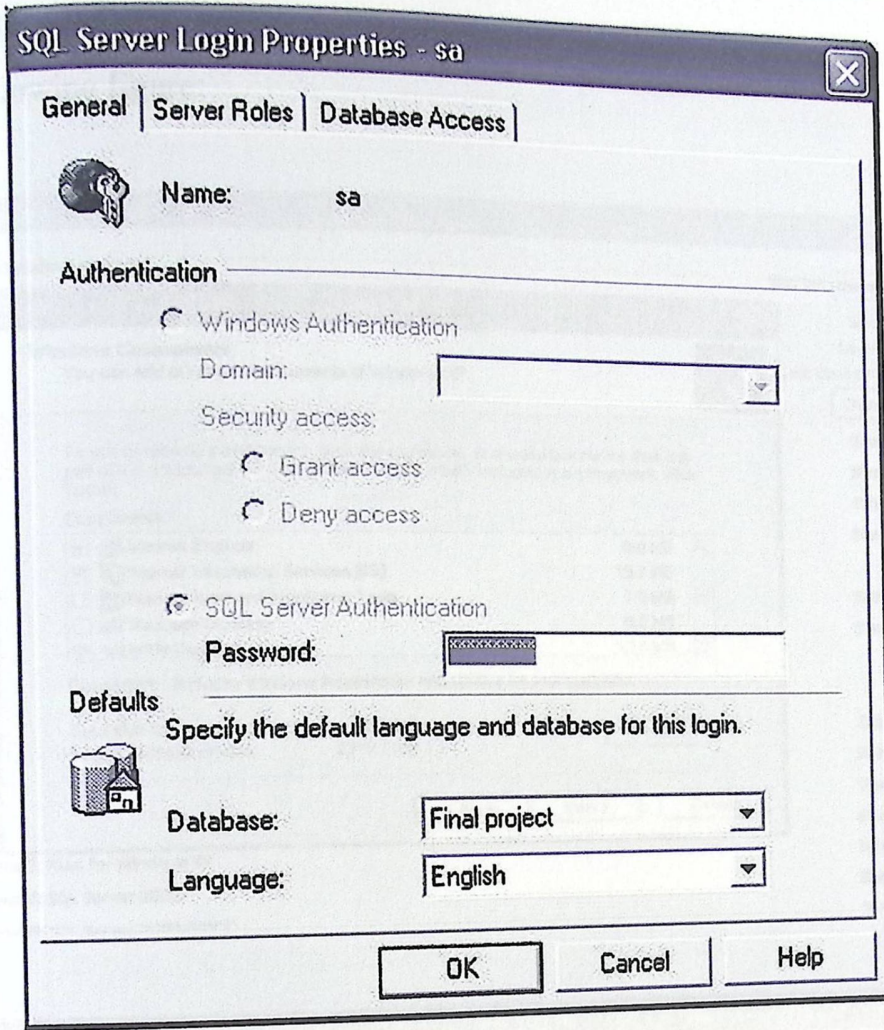


Figure (4.4): SQL server Enterprise Manager Security

#### 4.1.4. Coding the system functions and requirements

In order to implement the system functions and requirements coding we need to install an appropriate programming language environment, here we have been installed the Visual Basic.Net programming language within the Visual Studio.Net environment that applying the ASP.NET and VB.NET technology.

Before installing the Visual Studio.Net environment we must install the Internet Information Services (IIS) and Front Page Server Extensions.

From the "start" menu select "control panel" then "Add or Remove Programs" then "Add/Remove Windows Component" then from "Windows Components Wizard"

check on the "Internet Information Services (IIS)" option and click next to install as shown in the following figure:

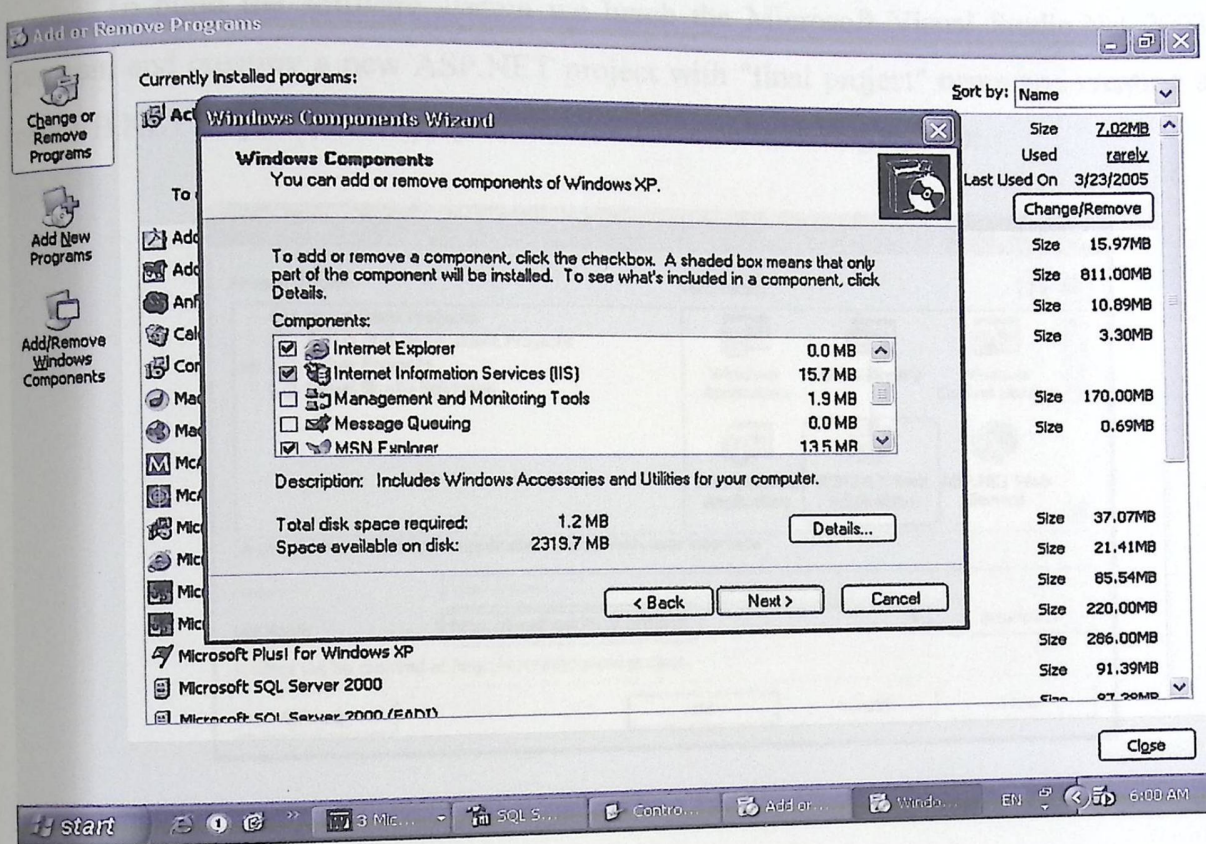


Figure (4.5): Internet Information Services (IIS).

The next step is to install the Visual Studio.Net environment following the installation guidelines appendixes with the package.

We using the Visual Studio .NET environment within the VB.Net language since it is the tool for rapidly building enterprise-scale ASP.NET Web applications and high performance desktop applications. Visual Studio includes component-based development tools, such as Visual C#, Visual J#, Visual Basic, and Visual C++, as well as a number of additional technologies to simplify team-based design, development, and deployment of your solutions.

Visual Studio.NET supports the Microsoft .NET Framework, which provides the common language runtime and unified programming classes; ASP.NET uses these

components to create ASP.NET Web applications and XML Web services. Also included is the MSDN Library, which contains all the documentation for this development tools.<sup>3</sup>

To build the software system we launch the Microsoft Visual Studio.Net 2003 program and creating a new ASP.NET project with "final project" name and creating a new VB.NET project with "f project" as shown in the following figures:

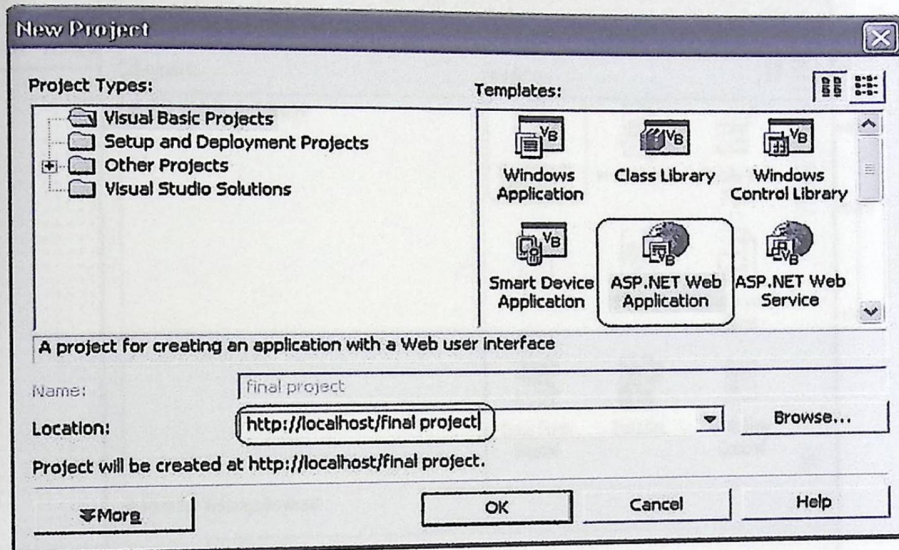


Figure (4.6): Creating New Web Application Project.

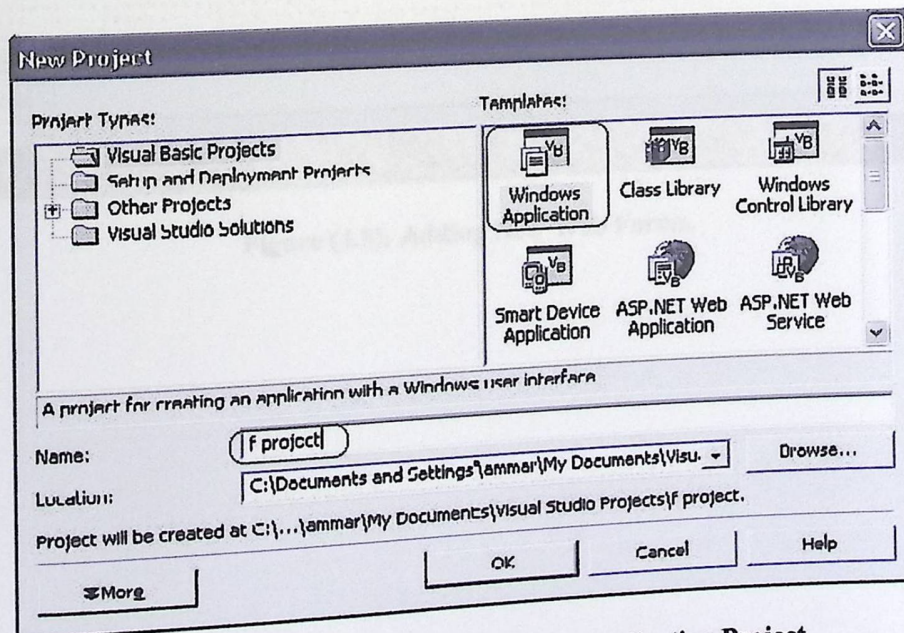


Figure (4.7): Creating New Windows Application Project.

<sup>3</sup> From Microsoft Visual Studio.Net 2003 Documentation (help).

Then we start building the web application and windows application forms as shown in the following figure:

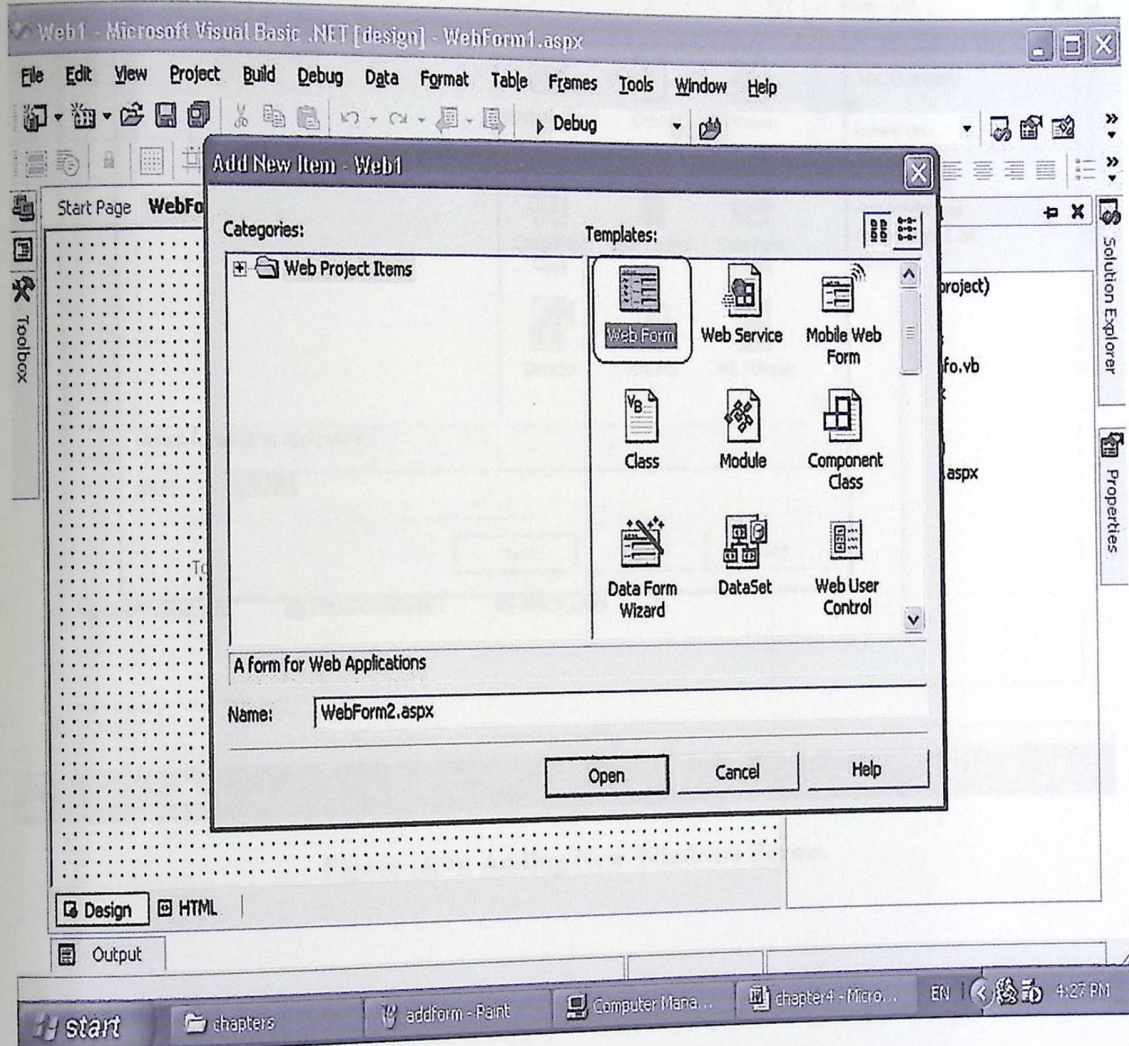


Figure (4.8): Adding New Web Forms.

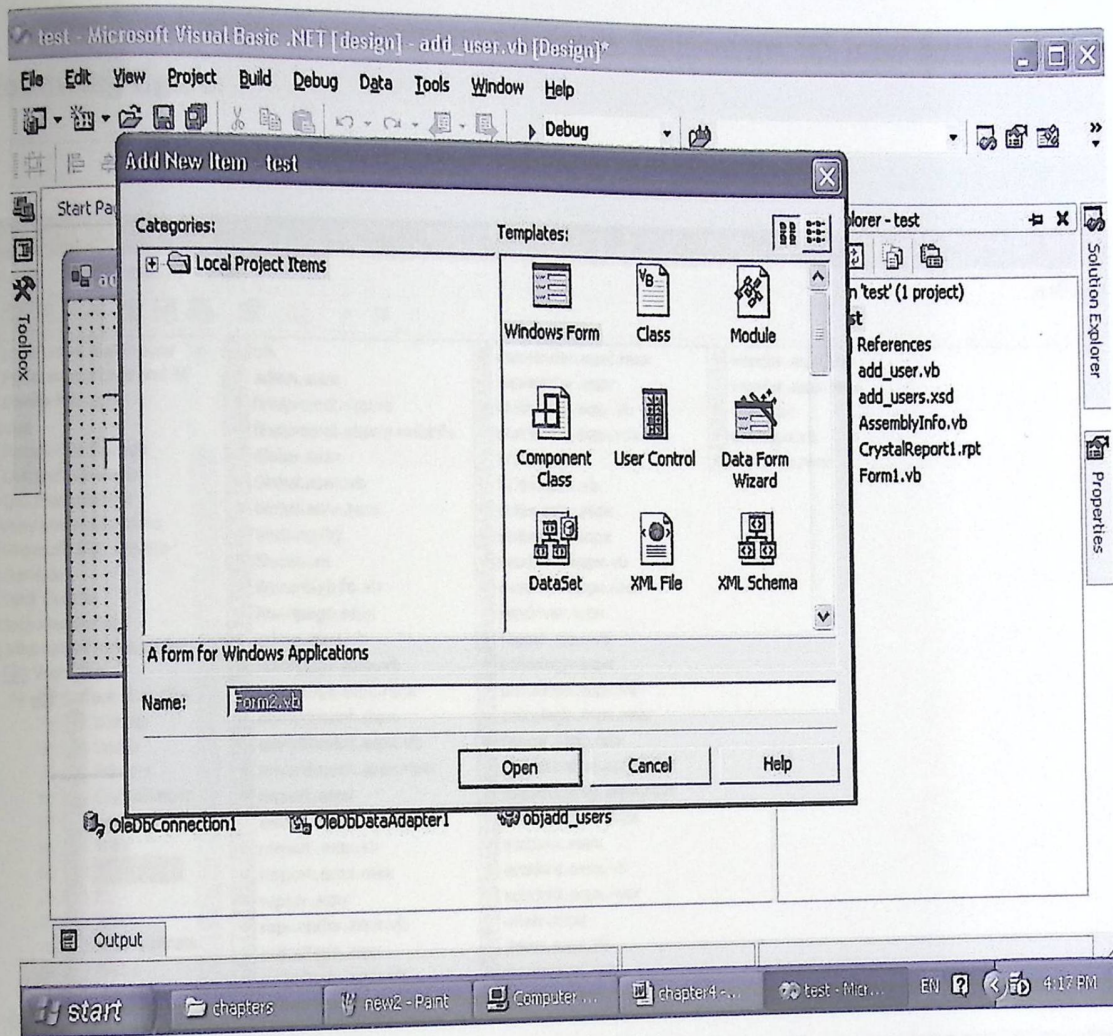


Figure (4.9): Adding New Windows Forms.

A new "final project" web site automatically built on the IIS local host as shown in the following figure:

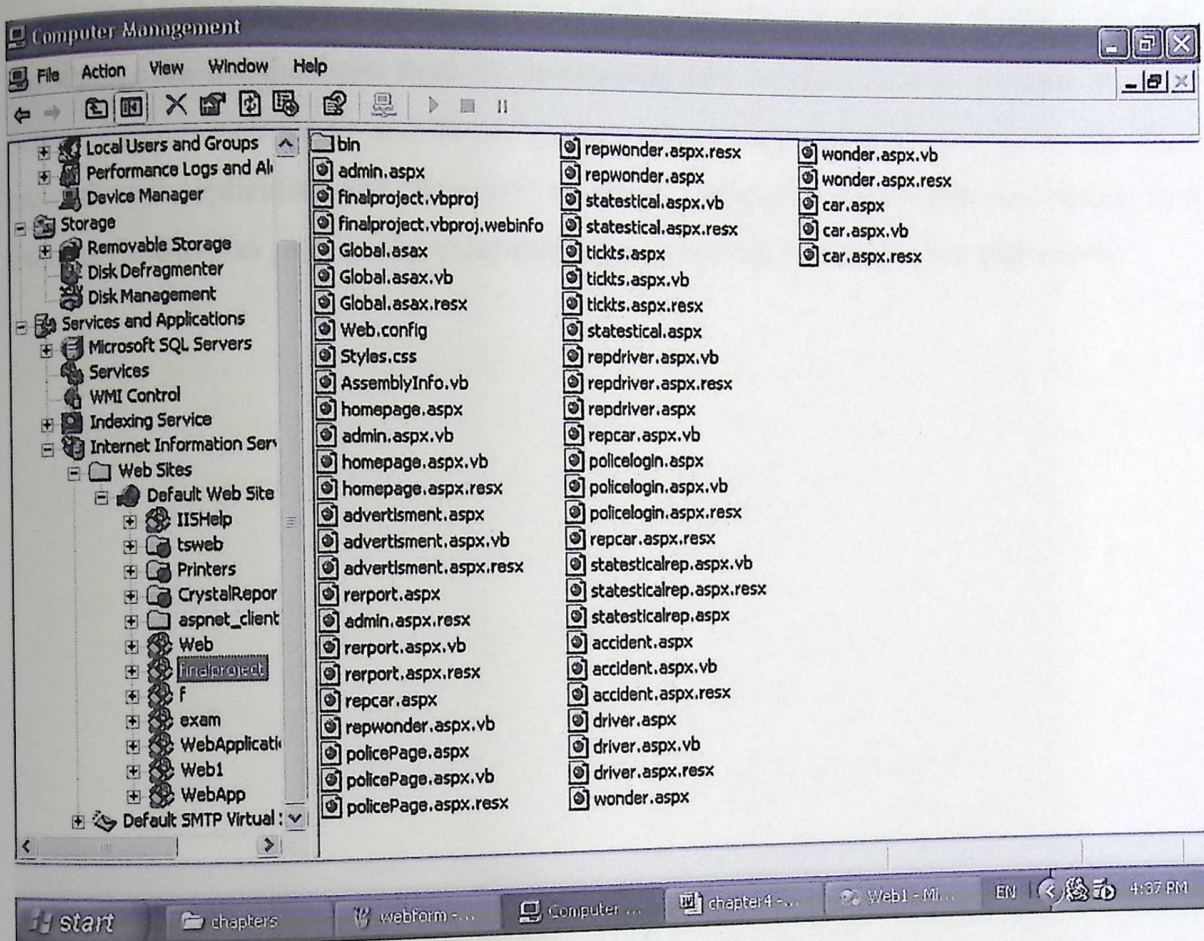


Figure (4.10): "final project" web site on IIS.

We also need to install other software programs that could be used during building and implementing of the system. Such software as Microsoft Office XP including the Microsoft Front Page.

#### 4.2.5. System backup.

During its building and developing stage, the system required to be supported with a backup storage mechanism of both its database data and its web form against any unexpected failed. Database backup achieved by copying the "Project" database file after any change on the database from its destination path on the computer running the SQL Server. System web forms and its design and code backup achieved by copying the "final project" web application and "fproject" windows application folder after any change on it from its destination path on the computer running the Visual Studio.Net application.

### **4.3 System Installation/Operation Stage.**

This stage involves fixing and setting up all the hardware requirements and installing all software programs and facilities in the system environment in order to enabling the system perform more effective.

#### **4.3.1 Setting up the hardware requirements**

The hardware equipments that required in the system operation stage have been described and specified at the feasibility study in system specification chapter (Chapter 1 section 1.8). These requirements and equipments must be fixing and setting up by specialist team in the police departments and central office in Hebron.

#### **4.3.2 Install a server operating system**

A Server Operating System such Windows server 2003 required to be installed on both web server and data base server if there were two separate devices.

#### **4.3.3 Install Data Base Server**

The system required a Data Base server such SQL server 2000 to be installed in its working environment. The SQL Server will be responsible for managing data access and transactions during the operation stage of the system.

#### **4.3.4 Hosting and domain name**

Hosting means that who is to be responsible for hosting and managing the system contents and design? It may be self responsibility by the police itself or external responsibility by an external Internet Service Provider.

We found that it is more effective and efficient to be self hosting responsibility rather than external one, since the use of the existing equipments and capabilities and the more flexibility to controlling and monitoring the system contents and design.

#### ***4.3.5 Publishing the System Database***

The system without its database is not a completely system, it is just a browsing system without meaning or useful. So the system database must be installed or in other meaning, published, on the database server at its environment.

#### ***4.3.6 Publishing the System (Site) Pages.***

In order to publish the site web pages, specialists' team required to take his responsibility of making all facilities and requirements that required improving the publishing operation including registration for a domain name and any other step during that operation.

Chapter five

**System Testing**

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5.4 Sub\_system testing.....114

5.5 Integration testing.....115

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## 5.1 Introduction

After coding and implementation phase has been finished, the system must be tested to ensure that it meets its specifications, testing the system is one of the most important stages in the software system development; since it consumes a lot of time, and require a great effort to get system to be reliable.

For the purpose of delivering a system that works properly as expected, certain testing procedures should be performed on the system and its components to provide level of confidence, this does not mean that the system must be completely free of defaults, but it means that the system should be good enough its intended use.

The testing process includes five successive levels:

- System units testing.
- Module testing.
- Subsystems testing.
- Integration testing.
- System and acceptance testing.

Testing will take place in time space that was assigned for the testing process.

Table (5.1) illustrate testing process schedule:

Time	
Testing Process	
Unit testing	
Module testing	
Subsystem testing	
Integration testing	

Table (5.1) Testing schedule.

### 5.1 System unit testing

At this stage of testing process we separate or divided the system into subsystems and components that will be tested separately to ensure that they operate correctly and meet its specification.

In our system the administrator operations effect the system and database , so we will test login, delete boards, and change password process, and for the students operations we will test change password, and voting process.

We will insert valid inputs one time, and invalid another time, and we will see the system responding result.

This table describes the unit testing process for police man login:

Unit testing process case	Input data testing		Expected result	Actual result
	Username	Password		
Valid login username and password	111	456	police man page loaded	police man page loaded
Wrong username or password expression	Adk14	\$hy1/dj	Invalid inputs format	Invalid inputs format
Invalid login username or password	111	654	Error alert appear, return to login page	Error alert appear, return to login page

Table (5.2) police man login process testing

## 5.2 System module testing

At this level we test the modules which encapsulated related components, so it can be tested without other system modules. Procedures, functions, and system interface are tested.

## 5.3 Sub-system testing

Our system is divided into three subsystems or clusters there are:

1. *Administrator subsystem.*

We tested all functions and procedures that operate through administrator pages to ensure that they are work correctly and meet its specification.

And we tested the data flow and transfer between procedures and functions, and interfaces and how data and information layout on pages and how they are appearance.

And we tested security side, to ensure that the system is secure and is safe from hacking.

2. *Police department subsystem.*

We tested instructor subsystem as we do at administrator subsystem, we tested all functions and procedures to ensure that they work correctly and meet its specification and it's behave as we expected.

And we tested the interface , and how the information are layout and appearance on screen, in addition we tested security to prevent any attempt to harmful or destroy the system, and we tested data transfer between functions and procedures to ensure that all data are correctly flowed and used.

### 3. *User subsystem.*

As the previous subsystems we tested all functions and procedures, and in every page we tested the data flow between the user and database to ensure that they are transfer correctly and in correct way.

And we tested user interface, and how information layout on pages, and we take in our consideration the interface colors that affect user, and we tested security to ensure that the system is secure and safely.

### 5.4 *Integration testing*

After we tested the subsystems and then we tested modules as encapsulated components, at this level we integrated all modules together and tested them as a whole system to ensure that the system works properly and meet its specifications.

The testing of the system integration indicates that the system works properly and meets its specification.

## 5.5 Snapshots

In this section we will select some snapshots from the web site to display them here to show how the real system will behave under certain situations and conditions.

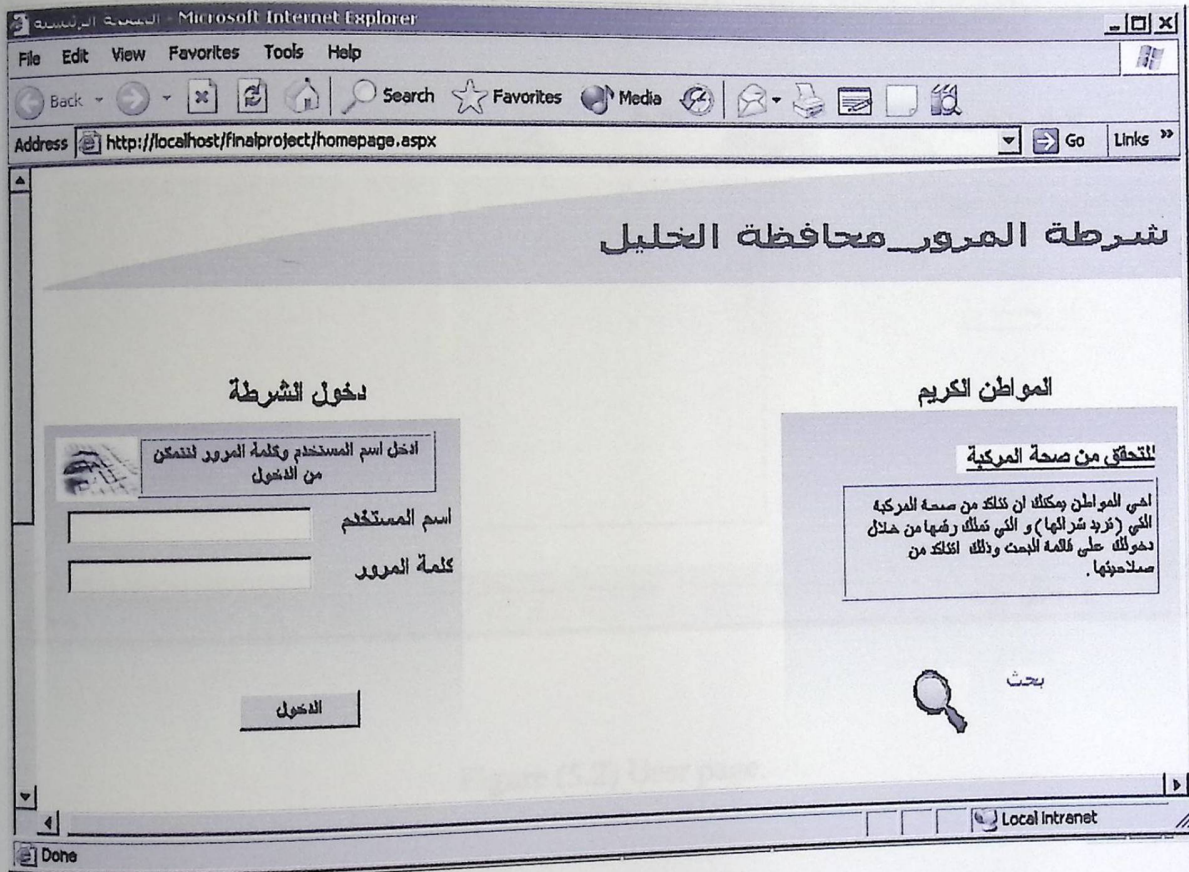


Figure (5.1) Home page.

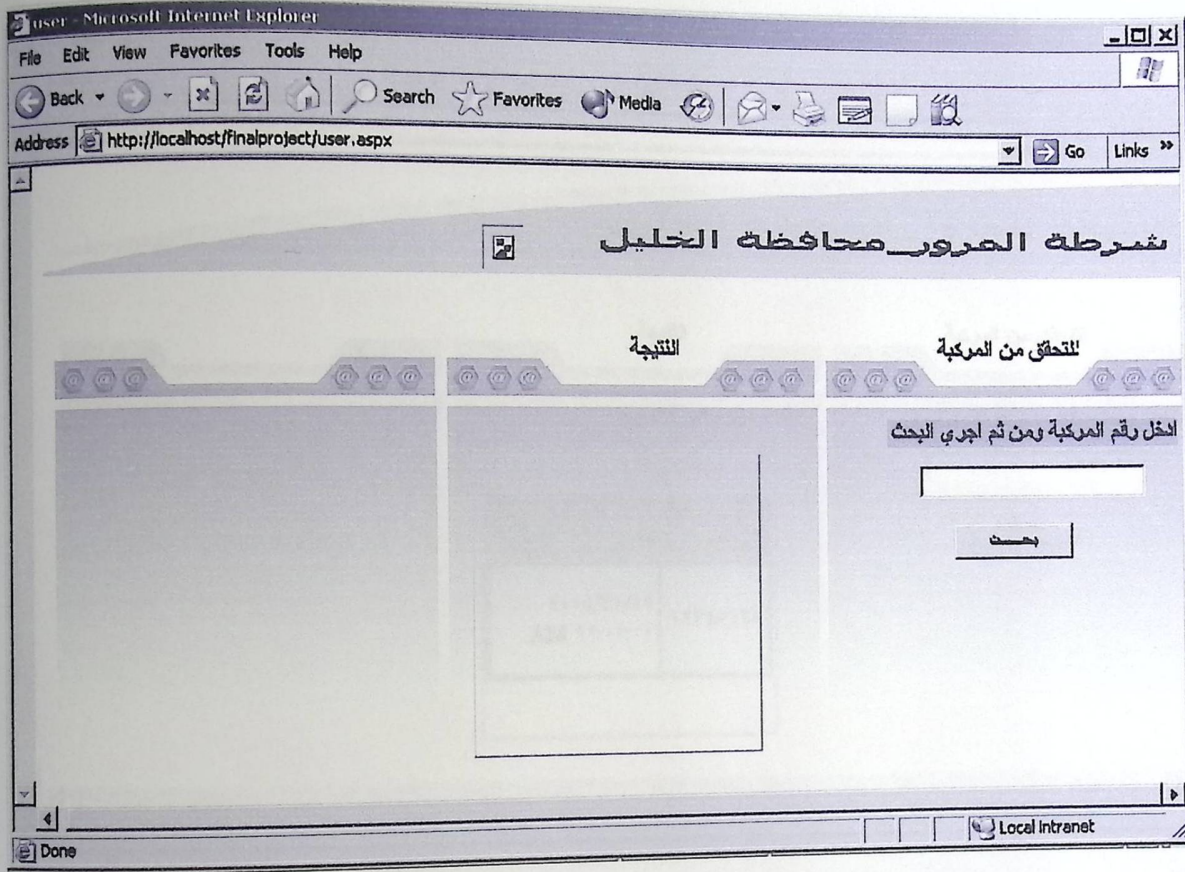


Figure (5.2) User page.

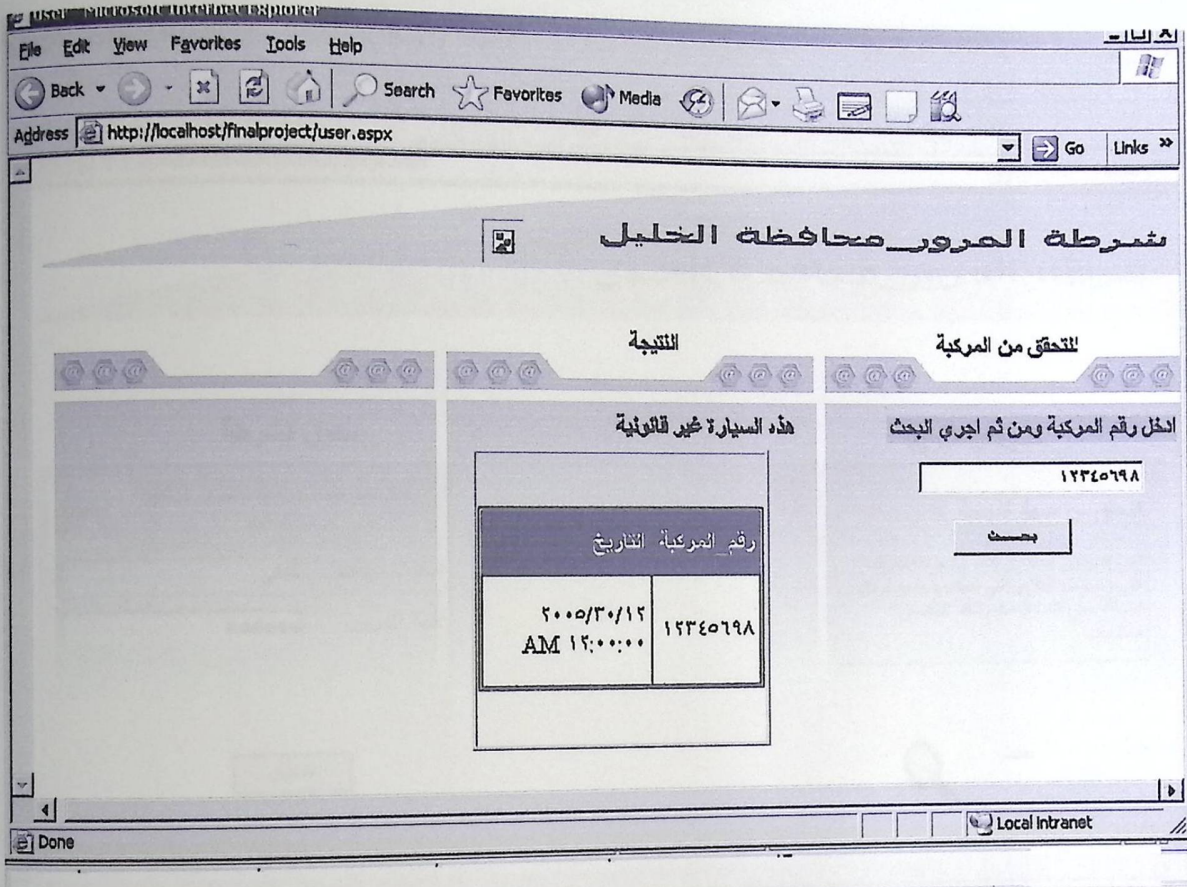


Figure (5.3) Illegal car search.

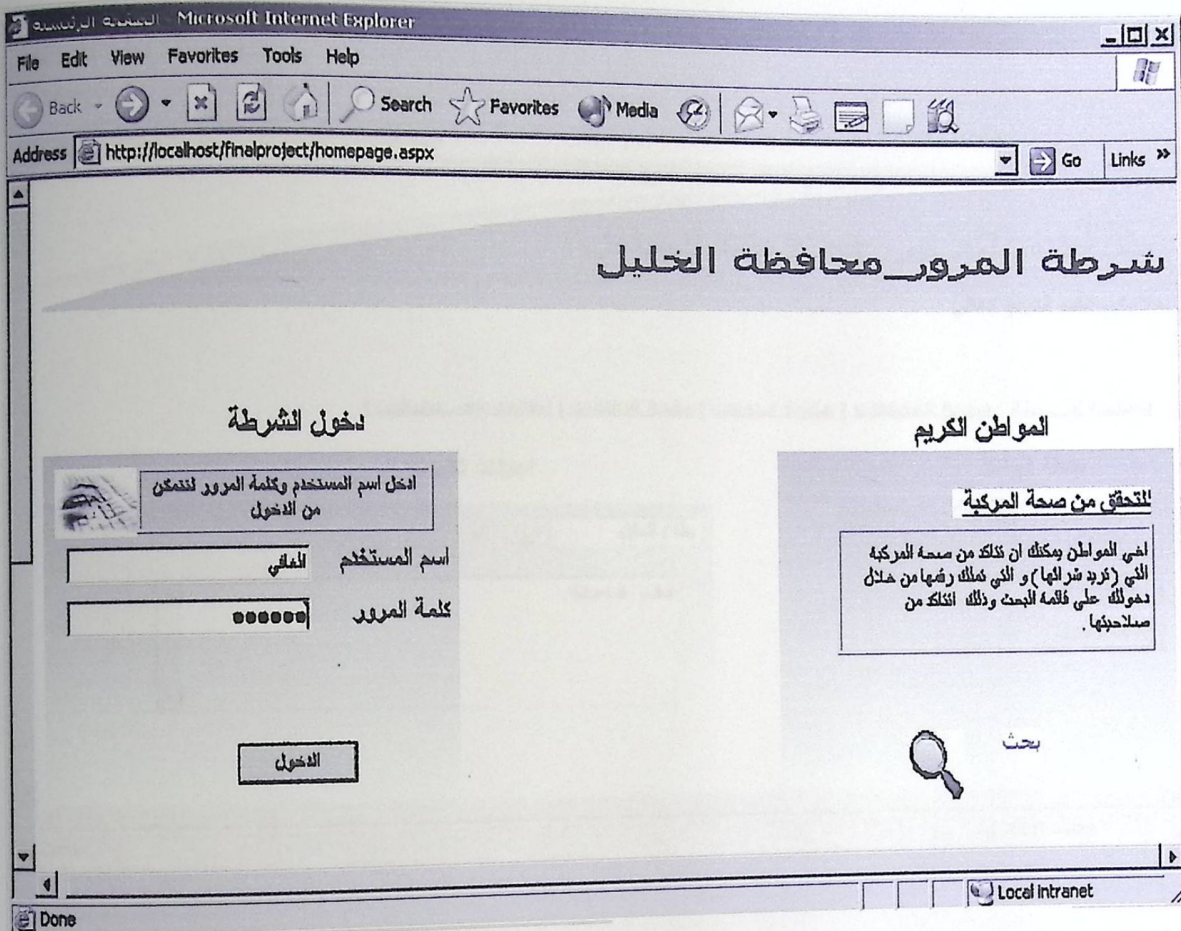


Figure (5.4) Police man login.

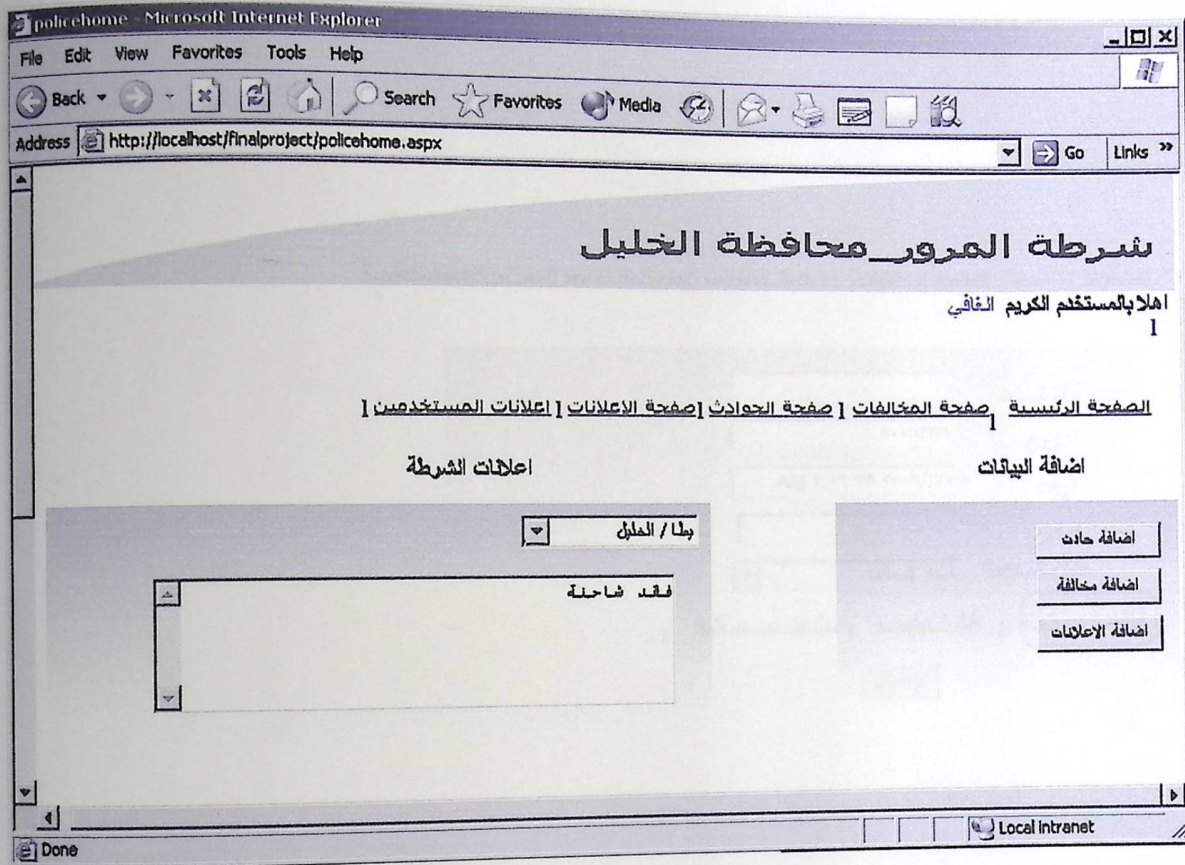


Figure (5.5) Police man advertisements page.

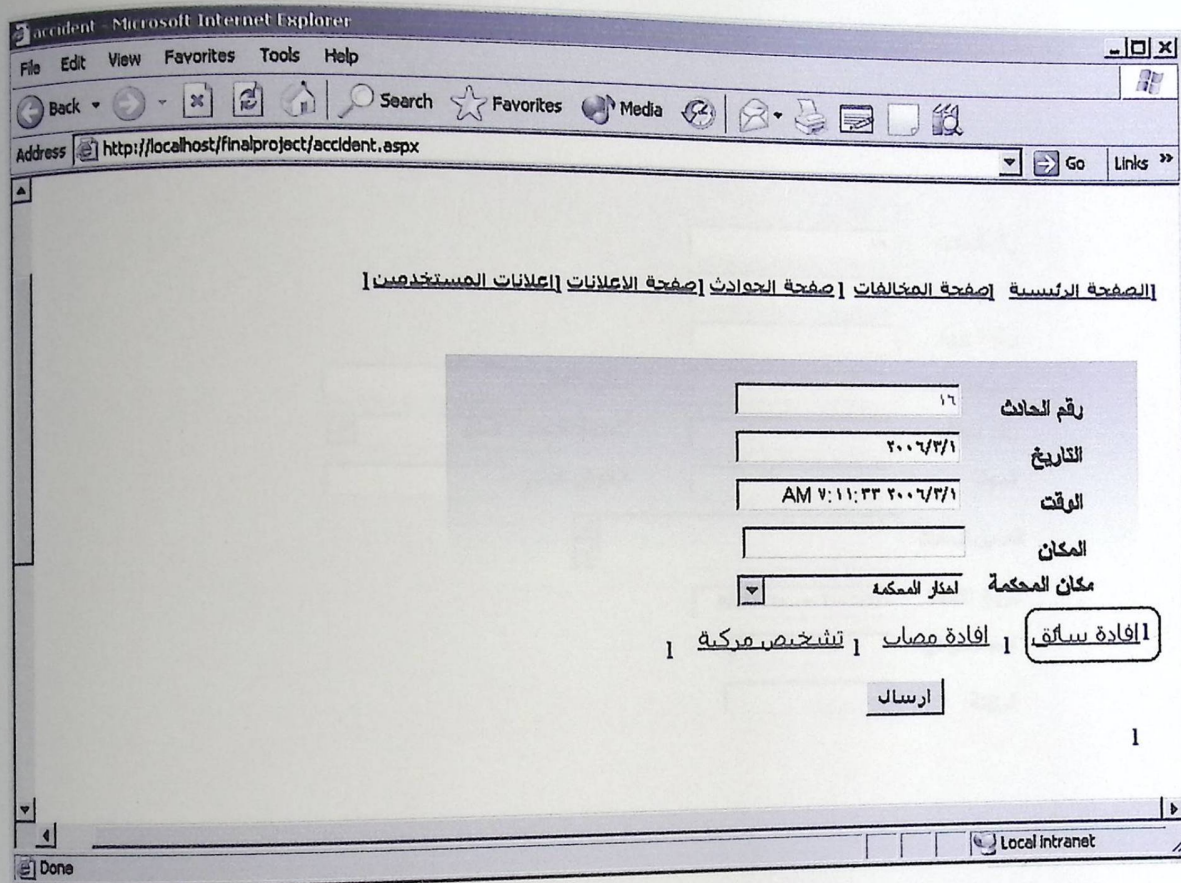


Figure (5.6) Add accidents page.

Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media

Address <http://localhost/finalproject/driver.aspx> Go Links

<input type="text"/>	رقم الحادث	<input type="text" value="١٦"/>
<input type="text"/>	الاسم الكامل	<input type="text"/>
<input type="text"/>	رقم الهوية	<input type="text"/>
<input type="text"/>	تاريخ الولادة	<input type="text"/>
<input type="text"/>	رقم الهاتف	<input type="text"/>
<input type="text"/>	المهنة	<input type="text"/>
<input type="text"/>	تفاصيل الحادث	<input type="text"/>
<input type="text"/>	تاريخ القيادة	<input type="text" value="AM ٧:٢٥:١٥ ٢٠٠٦/٣/١"/>
<input type="text"/>	اسم الشرطي	<input type="text"/>
<input type="text"/>	الرتبة	<input type="text"/>

مكان العمل

المدينة/القسم

العنوان الدائم

المالك

Local intranet

Done

Figure (5.7) Add driver testimony page.

The screenshot shows a Microsoft Internet Explorer browser window displaying a web form titled "Add wonder testimony page". The browser's address bar shows the URL "http://localhost/finalproject/wonder.aspx". The form is organized into several sections with labels in Arabic:

- Top Section:** Includes a text input field for "رقم الحادث" (Incident Number) with the value "١٦", a text input field for "الاسم الشخصي" (Personal Name), and a text input field for "رقم الهوية" (ID Number).
- Second Section:** Includes a text input field for "تاريخ الولادة" (Date of Birth), a text input field for "مكان الولادة" (Place of Birth), and a text input field for "رقم الهاتف" (Phone Number).
- Third Section:** Includes a text input field for "محل العمل" (Workplace), a text input field for "المهنة" (Profession), and a text input field for "اسم المحقق" (Inspector Name).
- Fourth Section:** Includes a text input field for "الساعة" (Hour), a text input field for "التاريخ" (Date), and a large text area for "التفاصيل" (Details).

The browser's status bar at the bottom indicates "Done" and "Local intranet".

Figure (5.8) Add wonder testimony page.

car - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media

Address <http://localhost/finalproject/car.aspx> Go Links

اهلا بالمستخدم الكريم الخافي

<input type="text"/>	رقم هوية المالك	<input type="text"/>	نوع المركبة	<input type="text" value="١٦"/>	رقم الحادث
<input type="text"/>	موديل المركبة	<input type="text"/>	رقم المحرك	<input type="text"/>	سنة الانتاج
<input type="text"/>	لون المركبة	<input type="text"/>	تياس الاطارات	<input type="text"/>	رقم الشاصي
		<input type="text"/>	حدد المقاعد	<input type="text"/>	رقم المركبة

<input type="text"/>	رقم القاطره
<input type="text"/>	موديل القاطره
<input type="text"/>	تاريخ بداية الرخصة
<input type="text"/>	تاريخ نهاية الرخصة

Done Local Intranet

Figure (5.9) Add car information page.

Chapter six

System maintenance

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## 6.1 Introduction

At this chapter we will provide and explain the process and techniques that guidelines the system administrator to keep tracing and maintaining the system after running it.

This chapter will cover the following related topics in system maintenance:

- Maintenance plan.
- Migration.

And we will talk about system maintenance which is divided to:

- IIS maintenance.
- SQL server 2000 maintenance.
- .NET framework maintenance.

## 6.2 Maintenance plan.

In this section we will describe some procedures that should be taken in our consideration to handle any system failure, errors, and other types of problems and exceptions that may be appear or occur during system life cycle.

### 6.2.1 Backup

The system database is a very important component because it contains all data, views, stored procedures we needed to our project, so making Backup for this database will make comfortable and sure that data is safety.

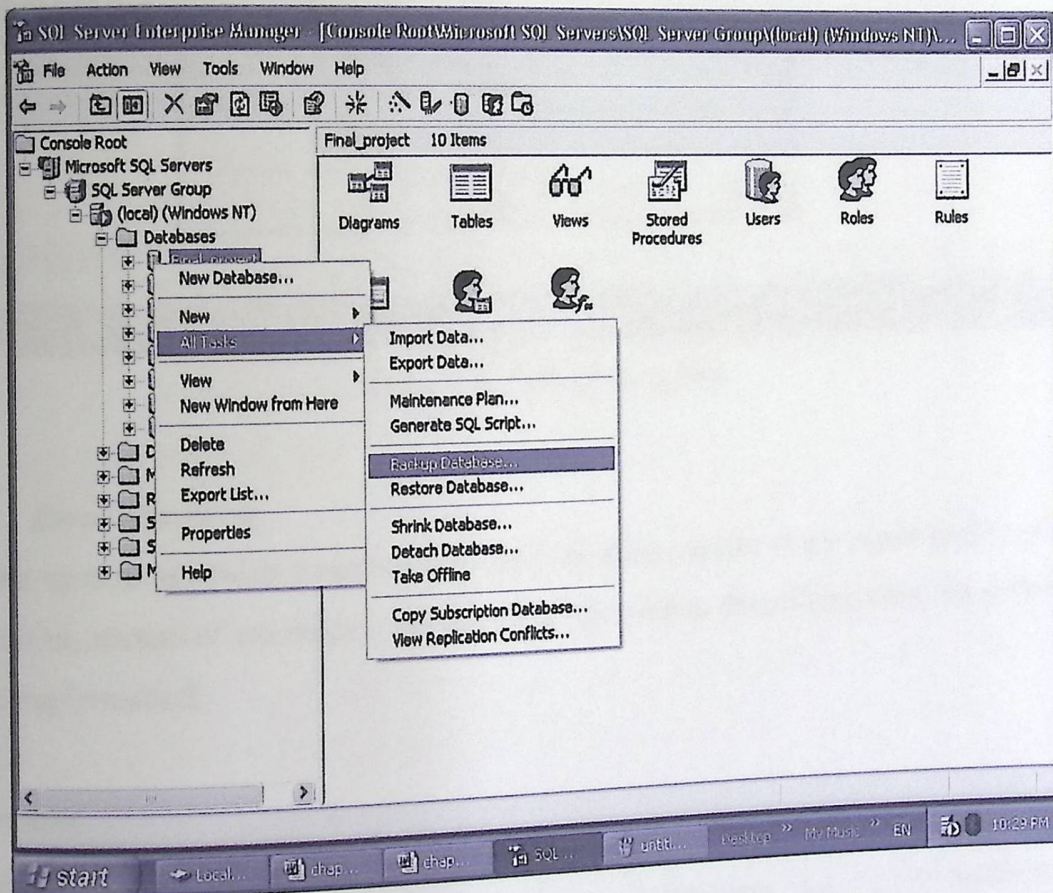


Figure (6.1) Making backup for database

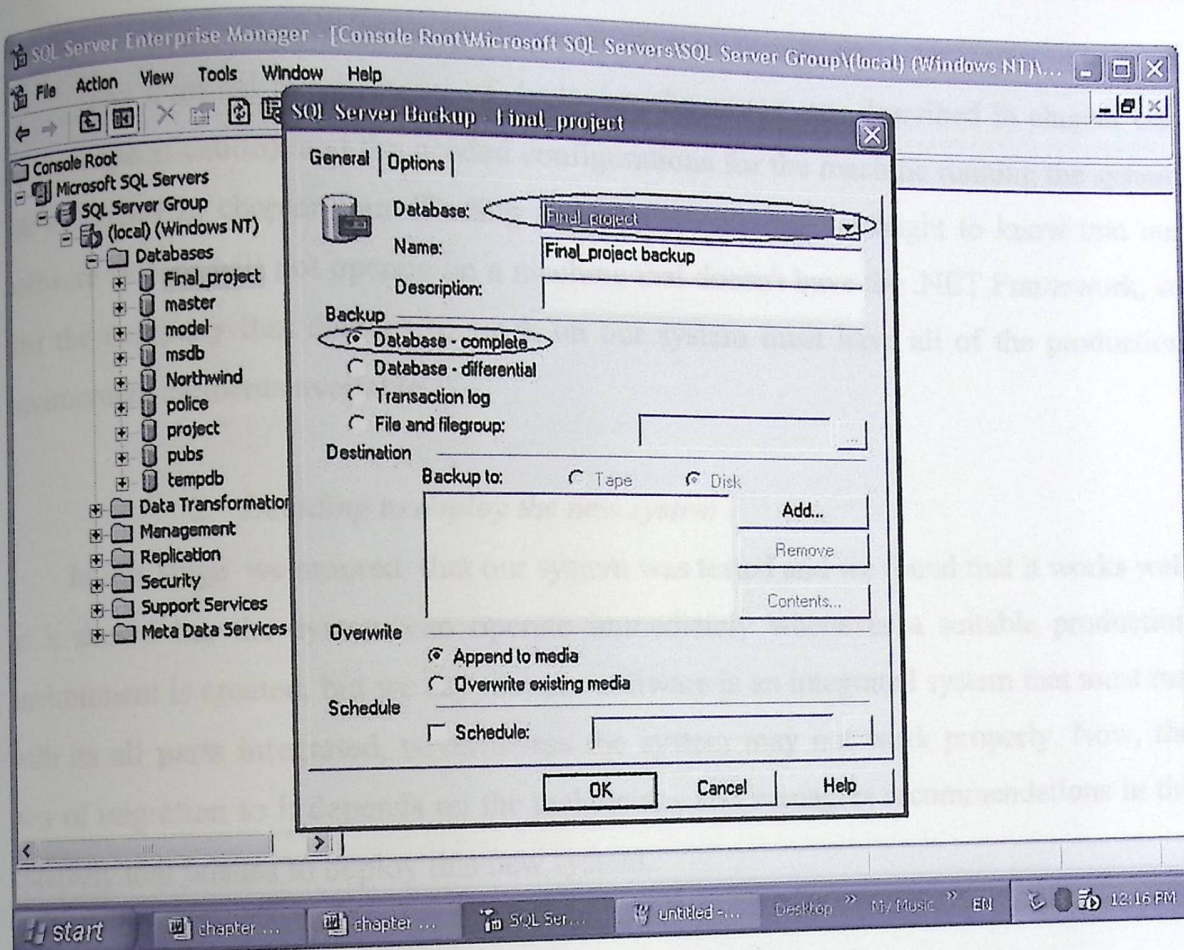


Figure (6.2) Backup option

### 6.2.2 Error reporting

Our system provides a simple way for reporting certain error immediately when they occur, means of messaging on the computer screen describing what the problem is are implemented.

### 6.3 Migration

The deployment of the system must be preceded by certain steps so that to work properly within its environment; the production environment has to be established, configured, and a decision of operating on the new system must be taken considering all constrains and risks of the process of migration to the new system. Toward deploying and migrating to the new system we describe here the steps that must be done:

### 1. *Establishment of the production environment:*

The minimal requirements of deploying the system are described in chapter one (system specification), and the needed configurations for the machine running the system are described in chapter four (Coding and implementation). We ought to know that our software system will not operate on a machine that doesn't have the .NET Framework, so that the company that decides to work on our system must have all of the production environment elements available.

### 2. *Deciding to deploy the new system*

In this stage we assured that our system was tested and we found that it works well as it should be, the system can operate immediately whenever a suitable production environment is created, but we say that our software is an integrated system that must run with its all parts integrated, nevertheless the system may not work properly. Now, the way of migration to it depends on the technicians and managers recommendations in the company that wishes to deploy this new system.

### 3. *Running the system*

After the system completed, the system can be running.

### 6.4 *Internet Information Services maintenance.*

IIS is the core of web server components, since without it the server cannot be considered as web server, so it must be maintained to make system operate correctly, because IIS represent a gateway for the application to be published over the internet.

Without IIS we can't publish the web over the internet, so success publish process is dependent on the consistency, security, and make a correct configuration for IIS.

### 6.5 SQL server 2000 maintenance.

The most important part of the system is database, since it contain the data used in the system, so it must be very secure much as better, so we must keep a track with it by maintaining database by using specific techniques as we mention before like backup .

Main components in SQL server 2000 according our system

1. The database of " Final\_project".

Which include all the system tables, views, and stored procedures.

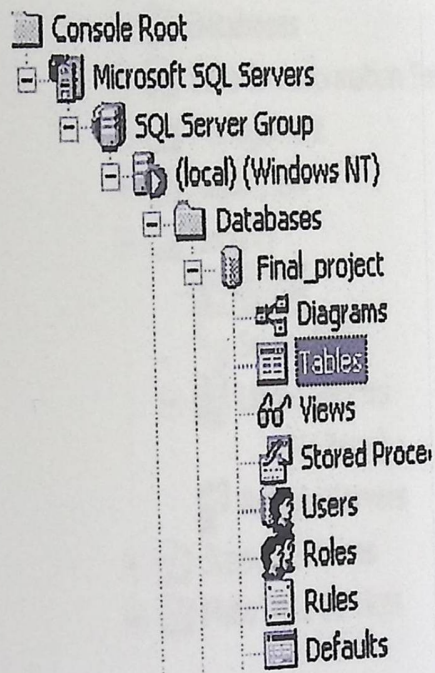


Figure (6.3) SQL server 2000 Database

## 2. Security.

This section include all roles that implemented on database, and users with their privileges allowed for them, and you can personalize your system setting by creating new users and roles and give each user specific privileges to allow access on database .

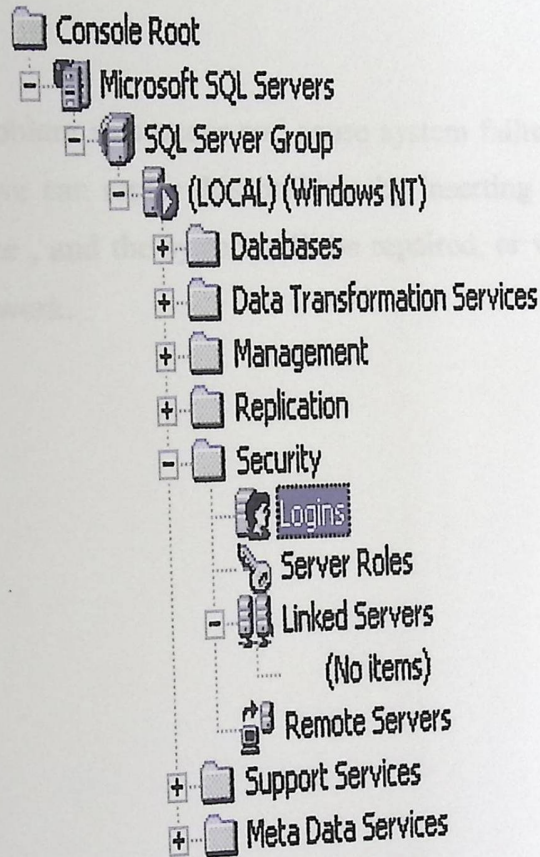


Figure (6.4) SQL server 2000 security section.

### 6.6 The .NET Framework maintenance.

.NET framework is an infrastructure of the Microsoft .NET technology, which we use to development our system one of it's components (ASP.NET).

Visual studio.NET collect all project files in one consol window known as solution explorer, through this window administrator can pick any file and make any justification on it or updated it.

If any error or problem was occur and cause system failure or it damage the visual studio.NET program, we can repair this problem by inserting the .NET framework CD and pick a repair choice , and the system will be repaired, or we can install new refresh copy from .NET framework.

Chapter Seven

**Conclusion and Recommendations**

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### 7.1 Introduction.

In this chapter we will provide many recommendations and further working on our system in order to improve its services.

### 7.2 Conclusions:

1. Our system uses available infrastructure of Microsoft.NET and information technologies to show the required information.
2. The system provides a full interactivity based on flexible environment between the system and users that enables both side to interact freely.
3. The system has good data security by enable administrator and police departments to add, delete and update information on the website which makes information and data safety.
4. Building a mechanism of exchanges information about accidents, tickets and issue needed reports quickly.
5. Provided new services to people to chick car (if car is stolen or no) and read advertisements.

*By completing this project, the work team learned many skills:*

1. We trained how to work as a team.
2. We have take a good chance to deal with several developing programs such as:
  - Good understand for SQL server environment and how creating database inflexibly way.
  - Learning Visual Studio.NET framework and take a good knowledge about it is integrated environment between web design, multimedia, and database.
  - Multimedia programs including adobe Photoshop and PhotoImpact.
  - Microsoft office Visio.
3. Solving possible problems that may be appear during system development.

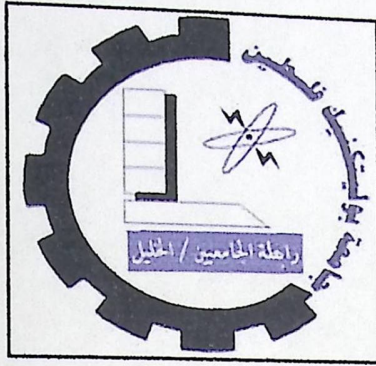
**7.3 Recommendations and Future works:**

1. Make the security over the system more strength, by using more encryption algorithm techniques.
2. We recommend connecting our traffic police system with transportation ministry.

**References:**

1. Modern System Analysis And Design, fourth edition, Jeffrey A.Hoffer – Joey F.George – Joseph S.Valacich.
2. Microsoft SQL server 2003 Help Topics.
3. Microsoft .NET Framework SDK v1.1.
4. [www.asp.net/forums](http://www.asp.net/forums).

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



جامعة بيرزيت  
كلية العلوم الادارية ونظم المعلومات  
دائرة تكنولوجيا المعلومات

دليل المســـــــــــــــخدم

شـــــرطة المرور - محافظة الخليل

فريق البحث

أحمد الهريني  
عمار أبوزنيد  
نضال حوشية

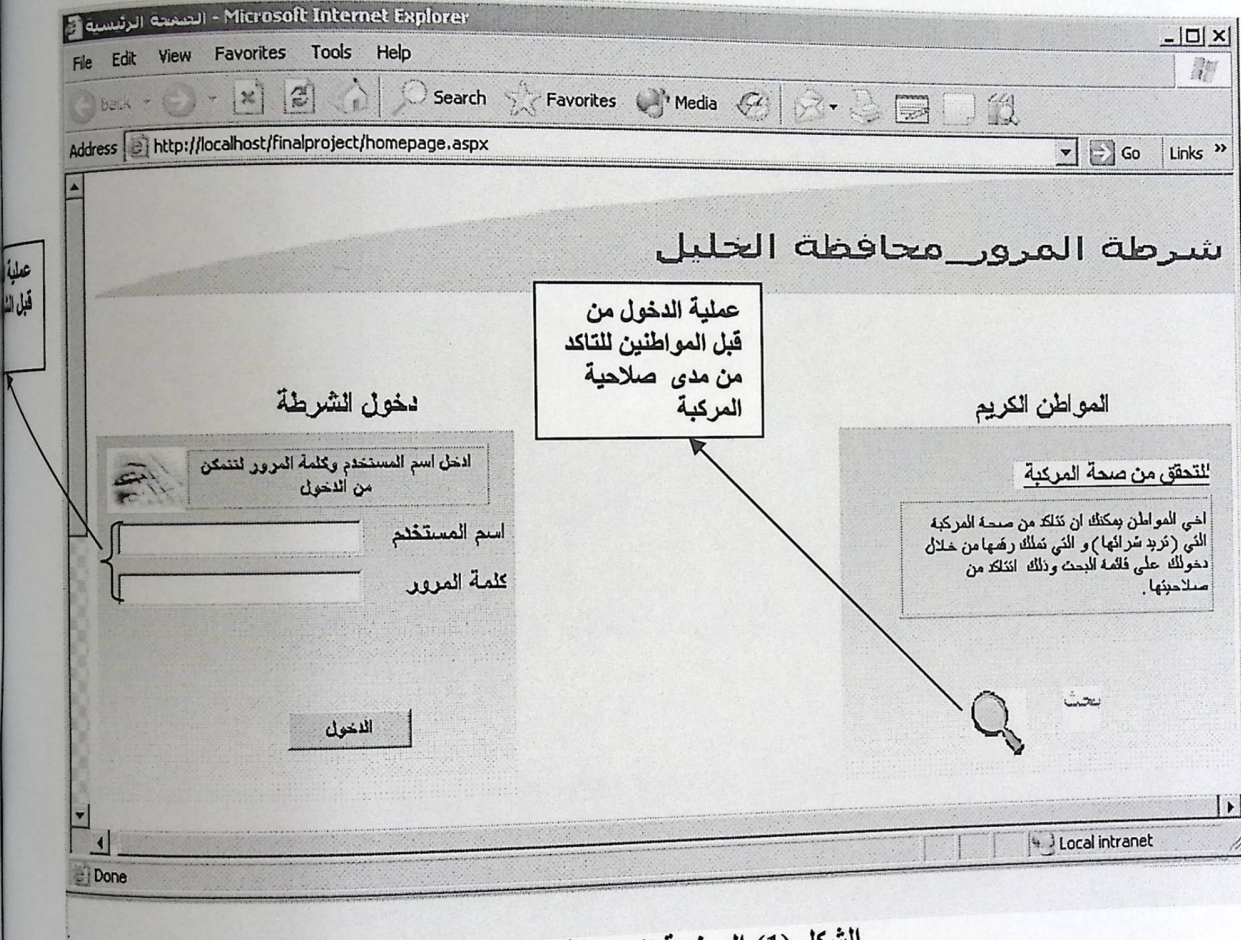
المشرف

الدكتور محمود الصاحب

2006

## كيف نستخدم النظام ونستفيد منه ؟

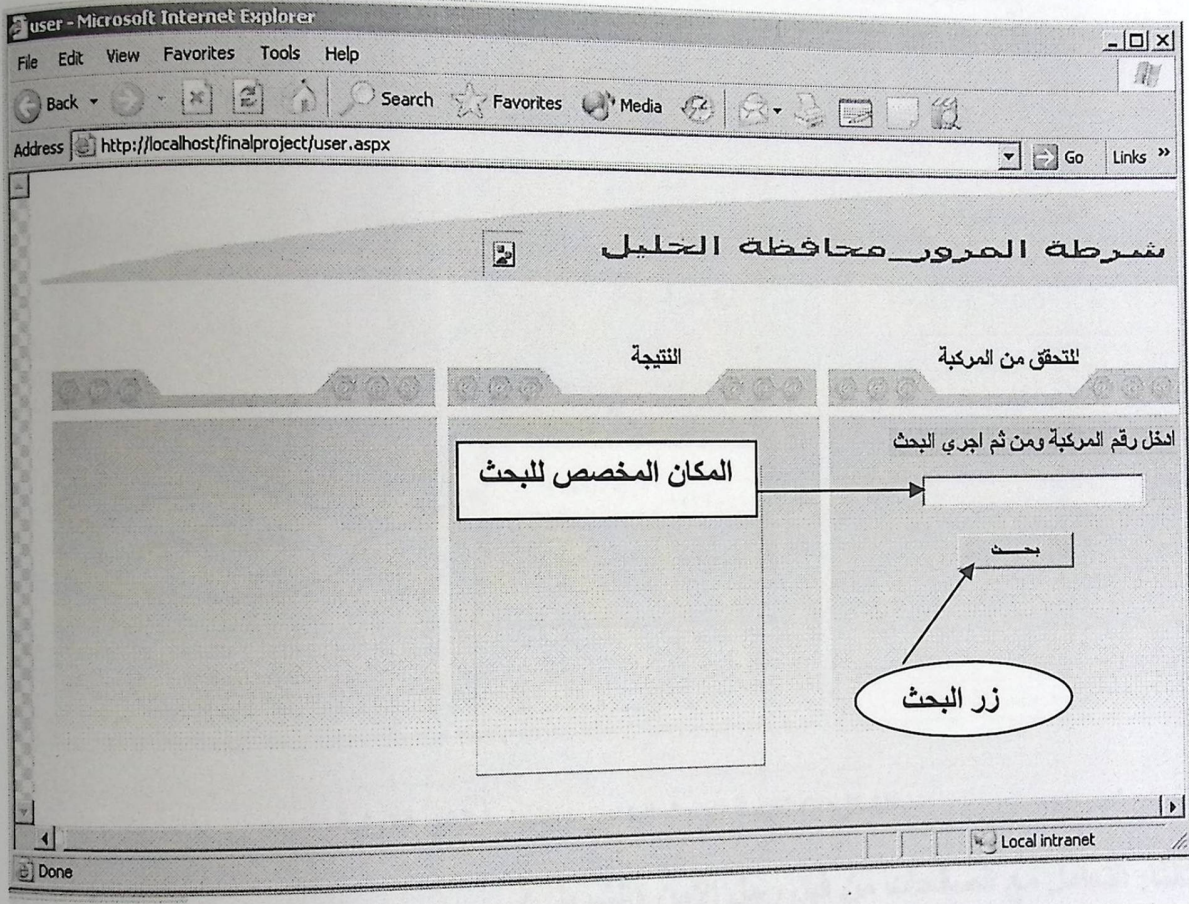
أولاً : الصفحة الرئيسية :-  
كما نلاحظ في الصفحة الرئيسية مقسومة الى قسمين ، فقسم للمستخدم العادي (المواطن) والذي من خلاله يستطيع هذا المواطن الدخول الى صفحة خاصة به يتمكن من خلالها بمعرفة هل السيارة التي بحوزته قانونية ام غير قانونية (مسروقة) .



الشكل (1) الصفحة الرئيسية للنظام .

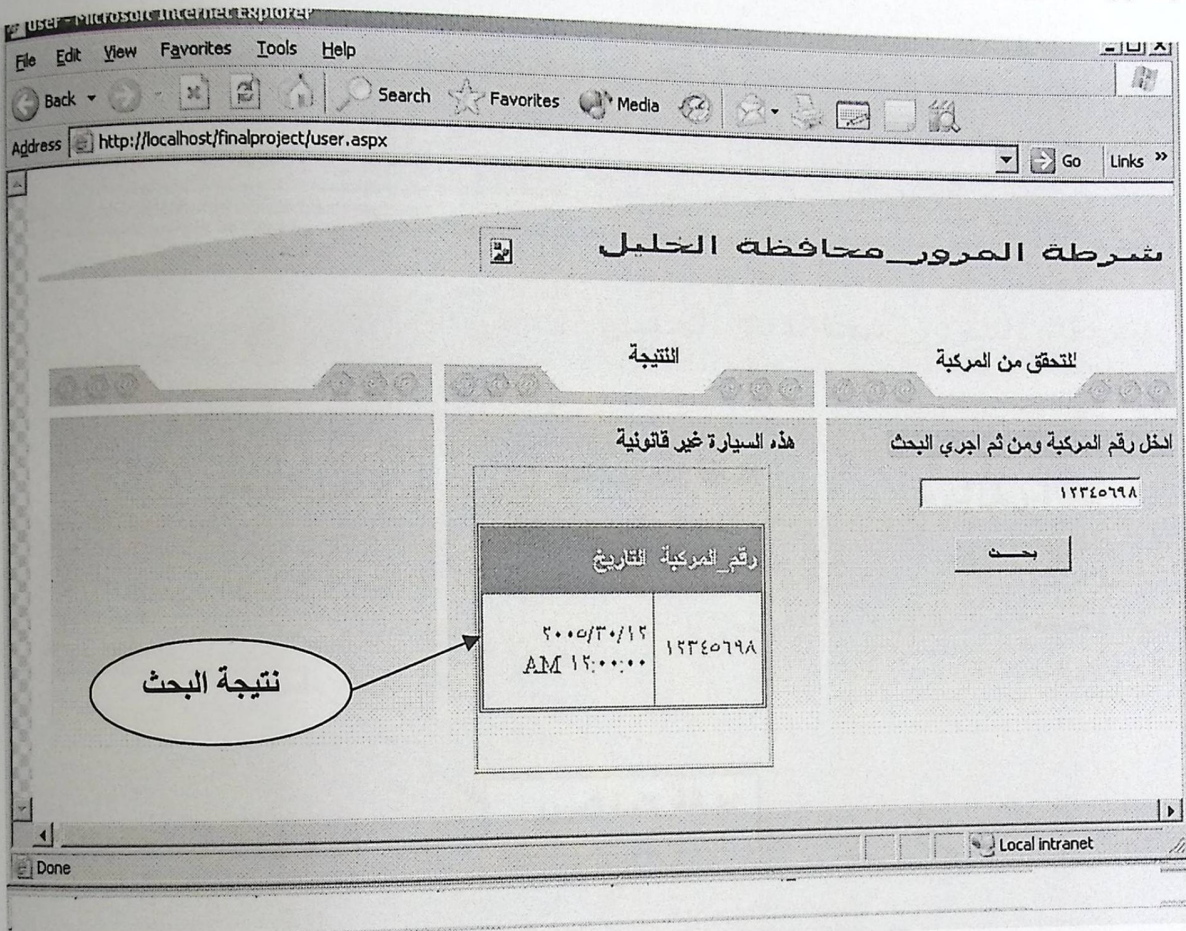
## ثانيا : التعامل مع صفحة المستخدم العادي

يقوم المستخدم العادي بادخال رقم المركبة التي بحوزته في المكان المخصص له، ثم يضغط على زر البحث وبالتالي تظهر النتيجة النهائية لعملية البحث في المكان المخصص لها.



الشكل (2) يبين الصفحة الخاصة بالمواطن (المستخدم العادي).

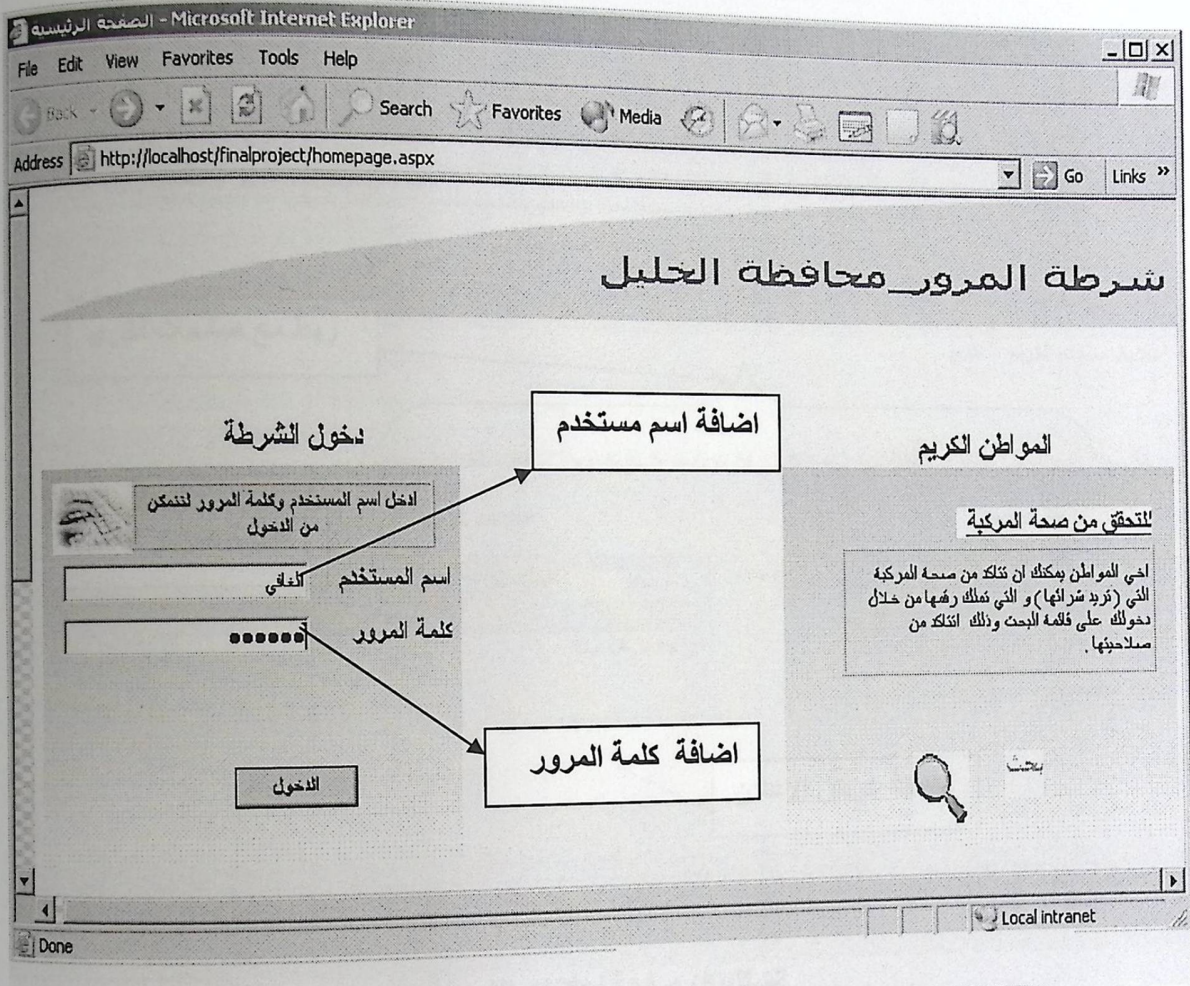
في حال ان السيارة لتي يمتلكها المواطن غير قانونية يتم اظهار النتيجة في مكانها المخصص لها، مع العلم ان الرقم الخاص بالمرکبة (المدخل) لا يقل عن ثمانية خانات وايضا يكون مدرجا ضمن جدول البيانات الخاص بالسيارات الغير قانونية .



الشكل (3) نتيجة البحث الخاص بالسيارة الغير قانونية .

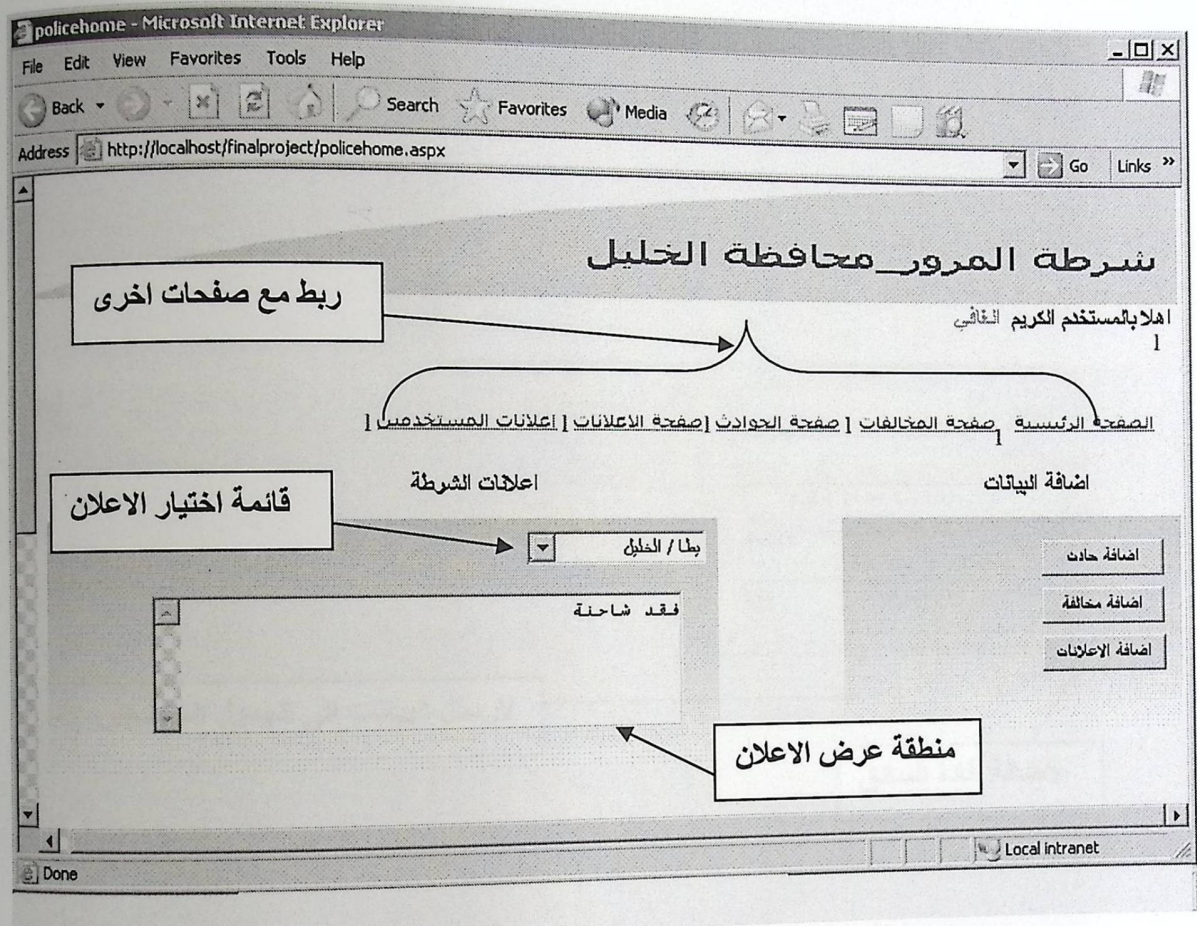
ثالثا: التعامل مع الصفحات من قبل رجل الامن (الشرطي)

أما القسم الثاني من الصفحة فهو خاص برجل الامن (الشرطي) و الذي بدوره ينتقل الى صفحة خاصة به تحتوي على مواضيع متفرقة من خلال ادخاله اسم مستخدم و كلمة مرور من اجل عملية الانتقال الى باقي الصفحات الاخرى.



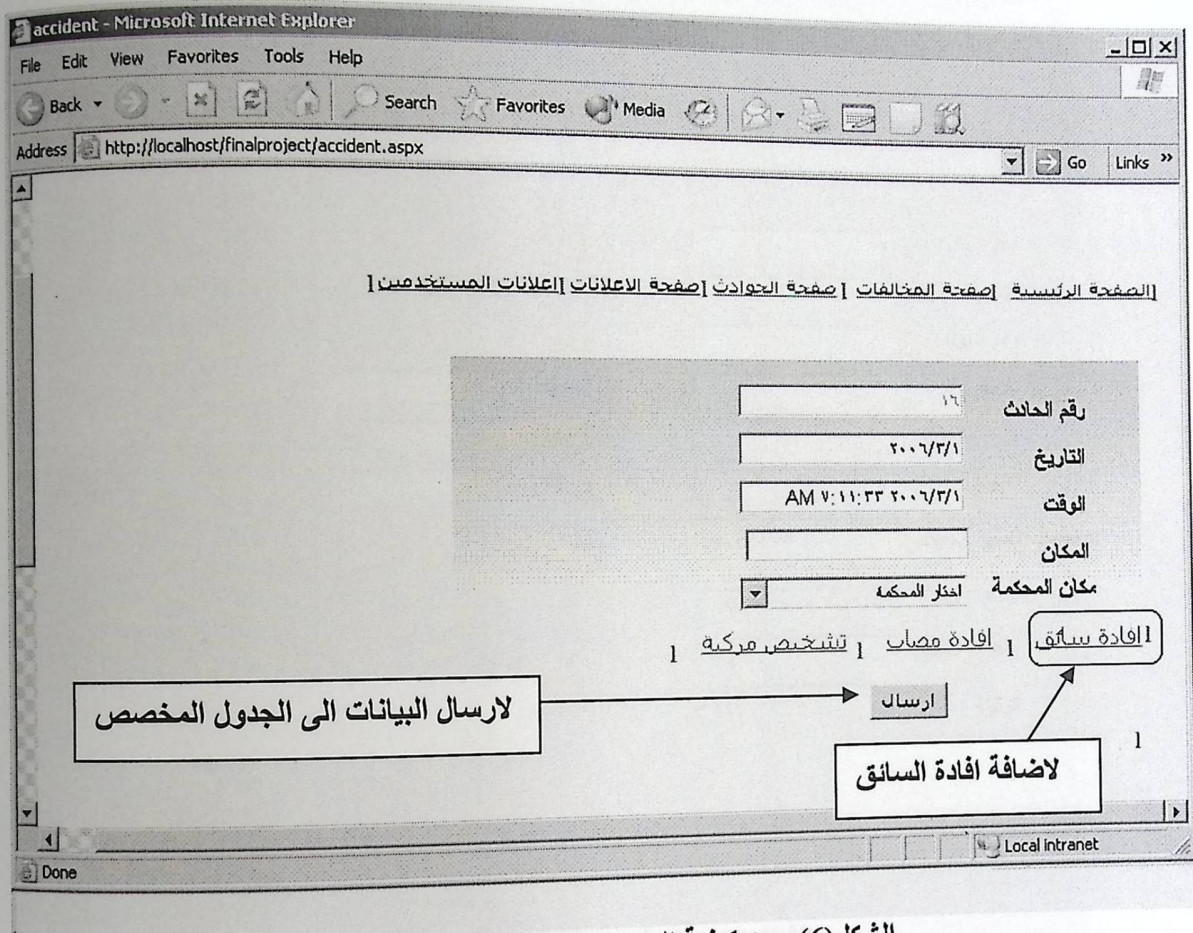
الشكل (4) يبين عملية الدخول من قبل الشرطي.

بعد ذلك يقوم الشرطي بالانتقال الى صفحة اخرى وهي تحتوي ادوات ربط مع صفحات اخرى بلاضافة الى جزء من الصفحة مخصص للإعلانات حول مواضيع مختلفة .



الشكل (5) صفحة اعلانات الشرطة

في الشكل السابق (5) من خلال الضغط على زر إضافة حادث فإنه يتم الانتقال الى صفحة تمكن الشرطي من تعبئة البيانات الخاصة بهذا الحادث، ومن الجدير ذكره هنا ان الحقل الخاص برقم الحادث هو عبارة عن عداد في كل مرة تعمل إضافة لحادث يزيد تلقائيا بمقدار (1).



الشكل (6) يبين كيفية الوصول الى صفحة اضافة حادث

في نفس الشكل السابق (5) يتمكن الشرطي ايضا من الدخول الى اضافة افادة للسائق المتسبب بالحادث وبالتالي يتم عرض صفحة خاصة من اجل عملية اضافة بيانات السائق المتعلقة به و بالحادث.

The screenshot shows a web browser window titled "driver - Microsoft Internet Explorer". The address bar displays "http://localhost/finalproject/driver.aspx". The main content area contains a form with the following fields and labels:

<input type="text" value="١٦"/>	رقم الحادث
<input type="text"/>	الاسم الكامل
<input type="text"/>	رقم الهوية
<input type="text"/>	تاريخ الولادة
<input type="text"/>	رقم الهاتف
<input type="text"/>	المهنة
<input type="text"/>	مكان العمل
<input type="text" value="الخاليل"/>	المدينة/القسم
<input type="text"/>	العنوان الدائم
<input type="text"/>	تفاصيل الحادث
<input type="text" value="AM ٧:٢٥:١٥ ٢٠٠٦/٣/١"/>	تاريخ الإفادة
<input type="text"/>	اسم الشرطي
<input type="text"/>	الرتبة

The browser's status bar at the bottom shows "Done" and "Local intranet".

الشكل (7) صفحة لاضافة افادة السائق

وايضا فهذا النظام يمكن شرطي المرور ان يضيف بيانات متعلقة بالمصاب او مايسمى بافاداة مصاب من خلال نقله الى صفحة خاصة بهذا الموضوع و تحتوي بيانات خاصة بالمصاب نفسها، وحول اصابته.

accident - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://localhost/finalproject/accident.aspx Go Links »

الصفحة الرئيسية | صفحة المخالفات | صفحة الجوادث | صفحة الاعلانات | اعلانات المستخدمين |

رقم الحادث: ١٦

التاريخ: ٢٠٠٦/٣/١

الوقت: AM ٧:١١:٣٣ ٢٠٠٦/٣/١

المكان:

مكان المحكمة: اختر المحكمة

افاداة سائق | **افاداة مصاب** | تشخيص مركبة

ارسل

اضافة افاداة مصاب

Done Local intranet

الشكل(8) يبين كيفية الوصول الى صفحة افاداة مصاب

Microsoft Internet Explorer - الحصابين

File Edit View Favorites Tools Help

Back Search Favorites Media

Address http://localhost/finalproject/wonder.aspx Go Links »

<input type="text"/>	رقم الحادث	<input type="text"/>
<input type="text"/>	تاريخ الولادة	<input type="text"/>
<input type="text"/>	الاسم الشخصي	<input type="text"/>
<input type="text"/>	رقم الهوية	<input type="text"/>
<input type="text"/>	العنوان	<input type="text"/>
<input type="text"/>	مكان الولادة	<input type="text"/>
<input type="text"/>	محل العمل	<input type="text"/>
<input type="text"/>	رقم الهاتف	<input type="text"/>
<input type="text"/>	المهنة	<input type="text"/>
<hr/>		
<input type="text"/>	اسم المحقق	<input type="text"/>
<input type="text"/>	التاريخ	<input type="text"/>
<input type="text"/>	الساعة	<input type="text"/>
<input type="text"/>	التفاصيل	<input type="text"/>

Done Local intranet

الشكل (9) صفحة افادة المصاب

كما وان صفحة اضافة الحوادث (شكل 6) اعطت امكانية للمستخدم (الشرطي) من الوصول الى صفحة تشخيص المركبة التي من خلالها يعبئ بيانات خاصة بالمركبة التي تسببت بالحادثة.

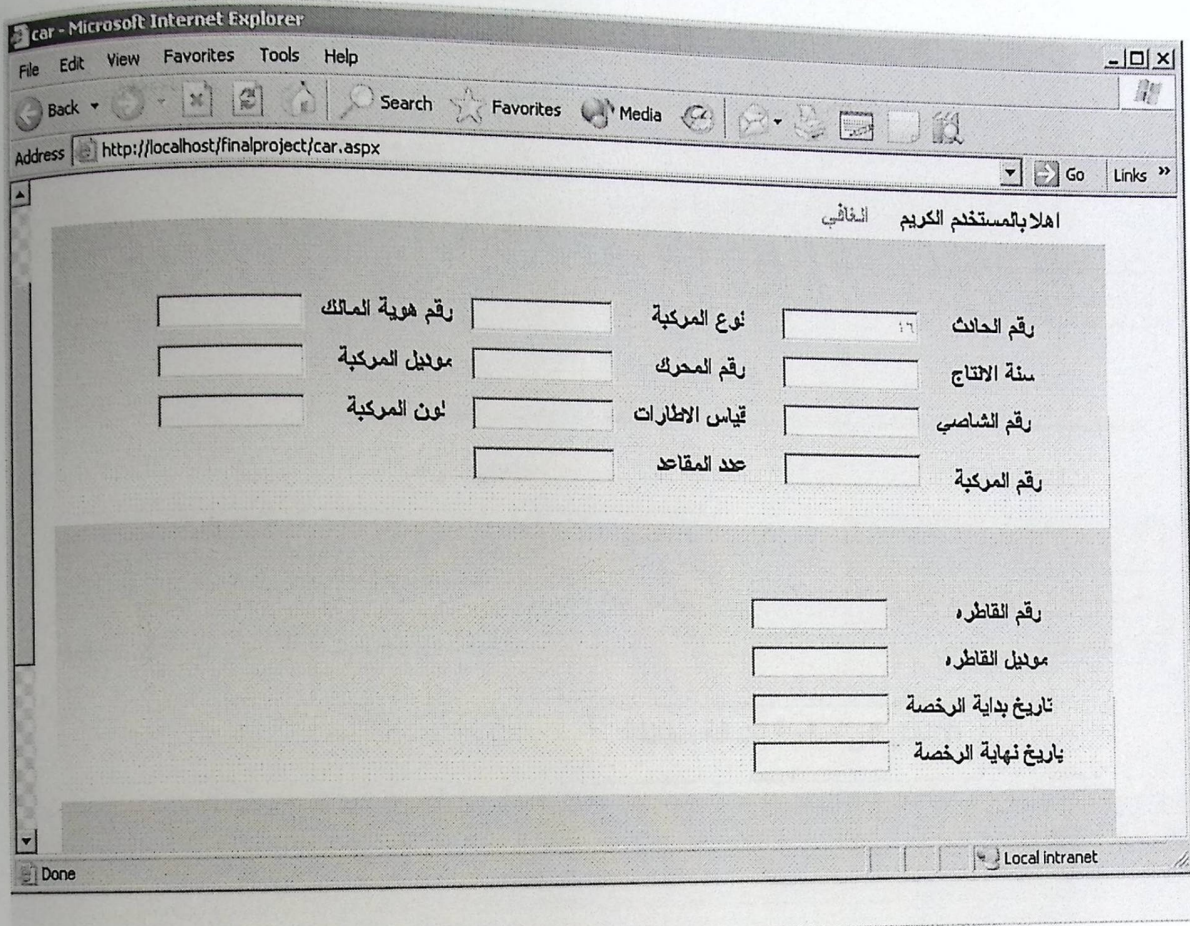
الصفحة الرئيسية | صفحة المخالفات | صفحة الحوادث | صفحة الاعلانات | اعلانات المستخدمين

رقم الحادث: ١٦  
التاريخ: ٢٠٠٦/٣/١  
الوقت: AM ٧:١١:٣٣ ٢٠٠٦/٣/١  
المكان:  
مكان المحكمة: اختر المحكمة

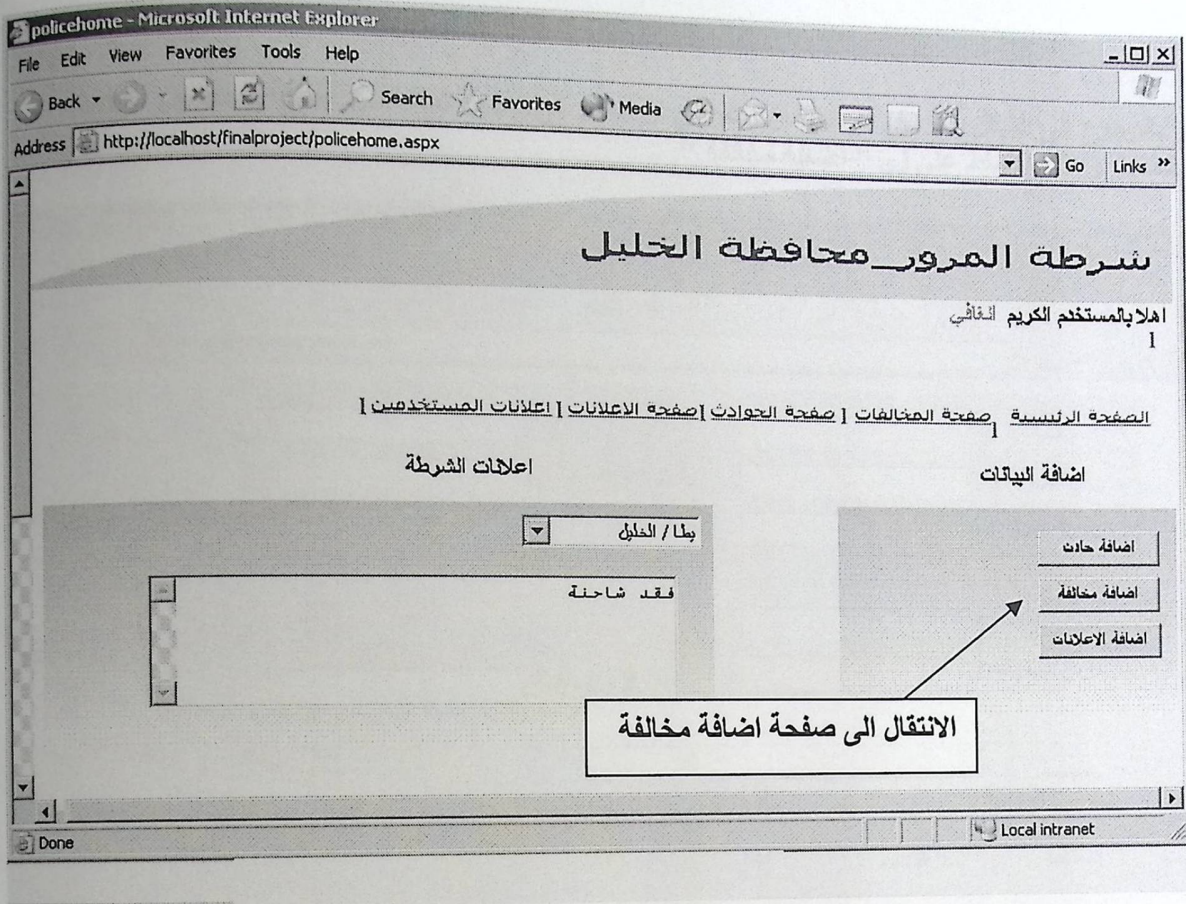
اإفادة سائق | اإفادة مصاب | تشخيص مركبة | ارسال

الانتقال الى صفحة تشخيص المركبة

الشكل (10) الوصول الى صفحة تشخيص مركبة



الشكل(11) صفحة تشخيص المركبة

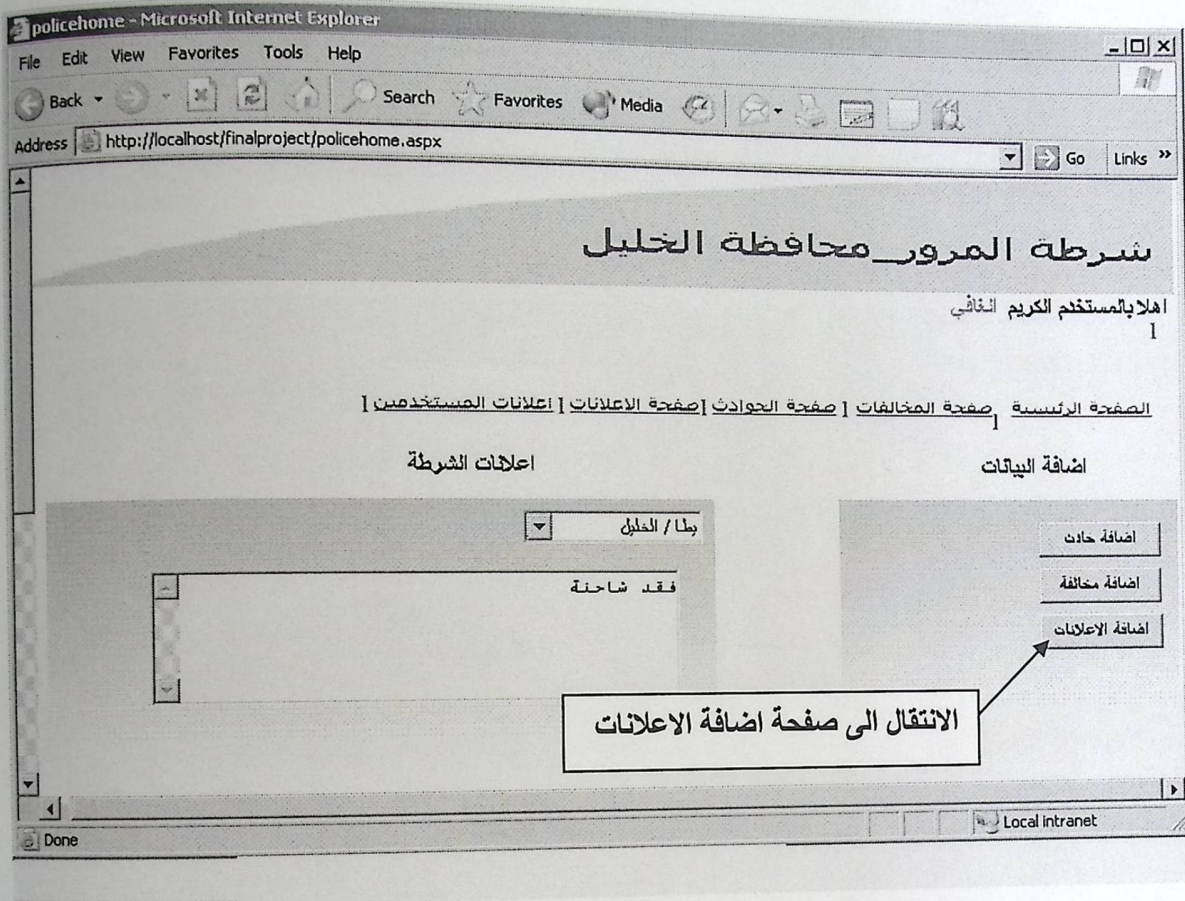


الشكل (12) الوصول الى صفحة اضافة مخالفة

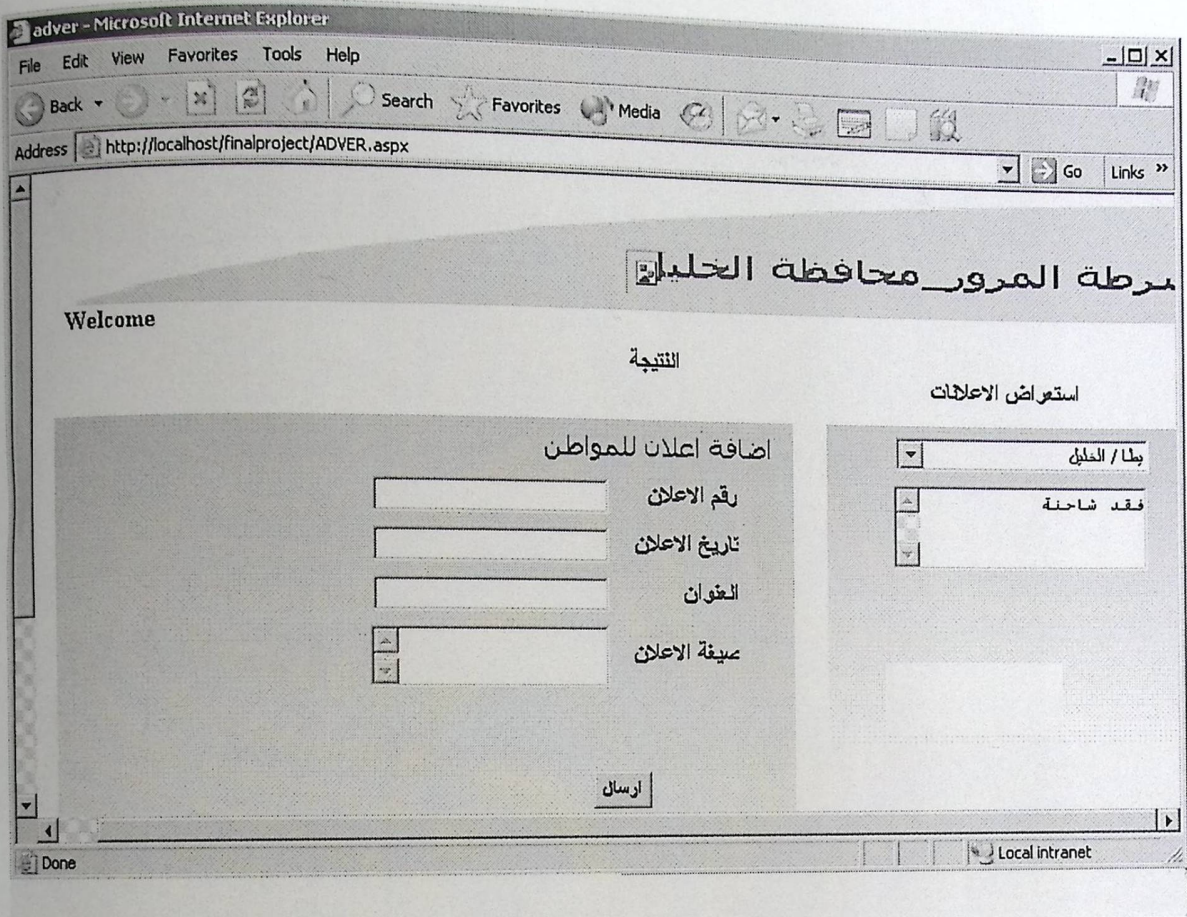
و بالرجوع الى الشكل رقم (5) فان بإمكان الشرطي ان يدخل الى صفحة تمكنه من اضافة المخالفات الخاصة بالحادثة وذلك بالضغط على زر " اضافة مخالفة " .

الشكل (13) صفحة اضافة مخالفة

وكذلك يستطيع المستخدم (الشرطي) من ان يذهب الى نفس الشكل (6) وينتقل من خلاله الى الصفحة الخاصة باضافة الاعلانات حول المواضيع المختلفة.



الشكل(14)الوصول الى صفحة اضافة الاعلان



الشكل (15) صفحة اضافة لاعلانات