

Faculty of Economics and Administrative Sciences

Department of Computer Information Systems

2007/2008 SPRING TERM CIS 400 (GRADUATION PROJECT)

YHN Car Rental Automation System

Submitted To: DEPT OF. CIS

Submitted By: Ayhan Kaldırım-20010415

Nicosia 2008



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IV. DESIGN OF THE SYSTEM

EXPLANATION

Processes

1. Cars Processes

Car operation

Car search

Existing cars

Car rental

Car sale

2. Customers Process

Customer operation

Customer search

Existing customer

3. Personnels Process

Personnels operation

Personnel search

Existing personnels

Pay salary

4. Reports Process

Existing cars report

To return cars in a day report

To sell cars report

5.Supplier Process

Supplier operation
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Existing Supplier

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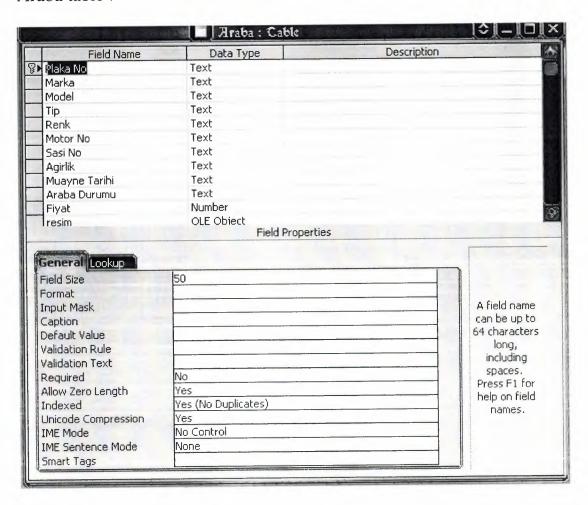
- There was an existing software but its complex and old.
- Sometimes the data got lost on the database.

THE NEW SYSTEM'S PROVIDENCES

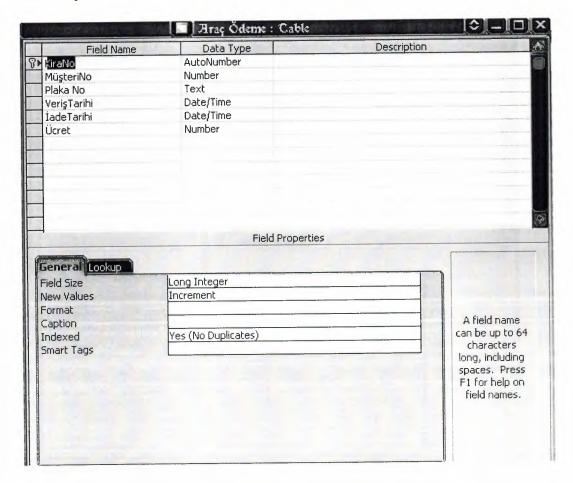
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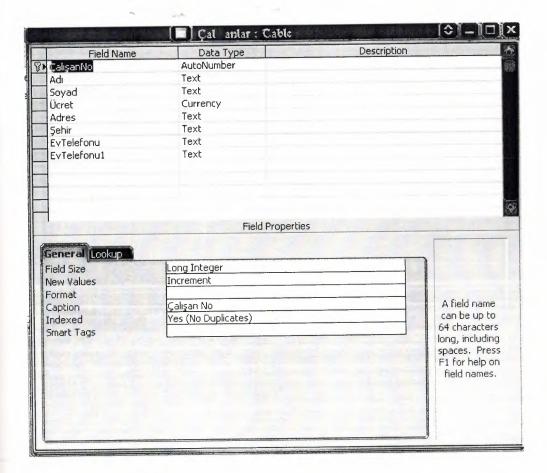
Araba table:



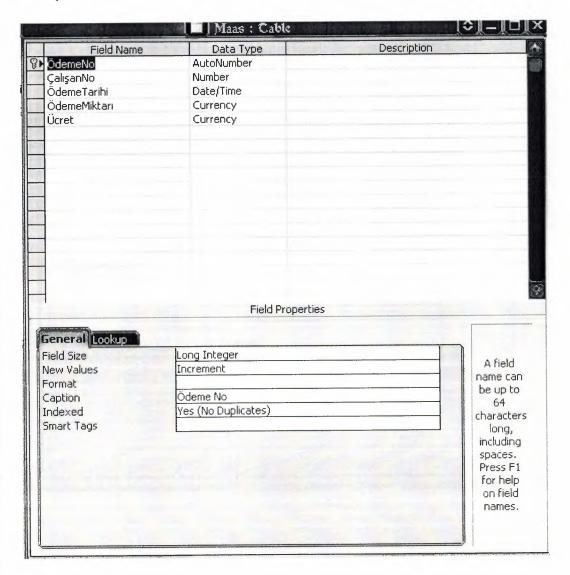
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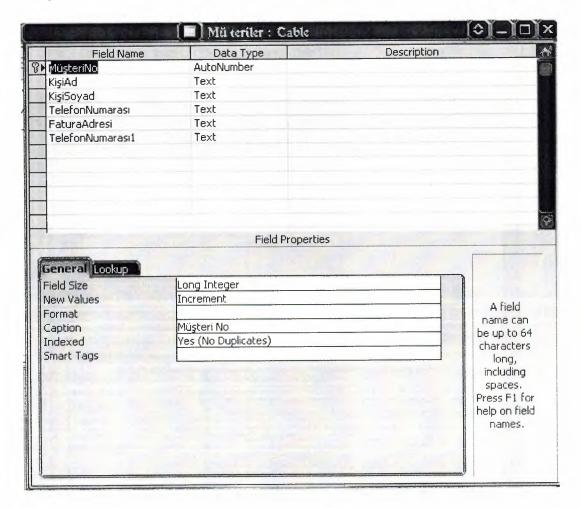
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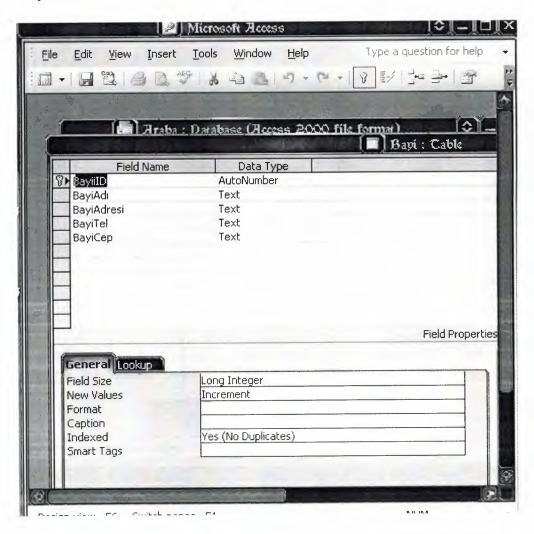
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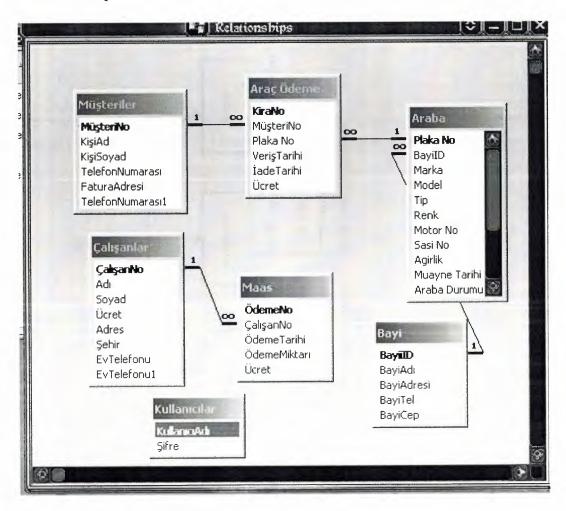
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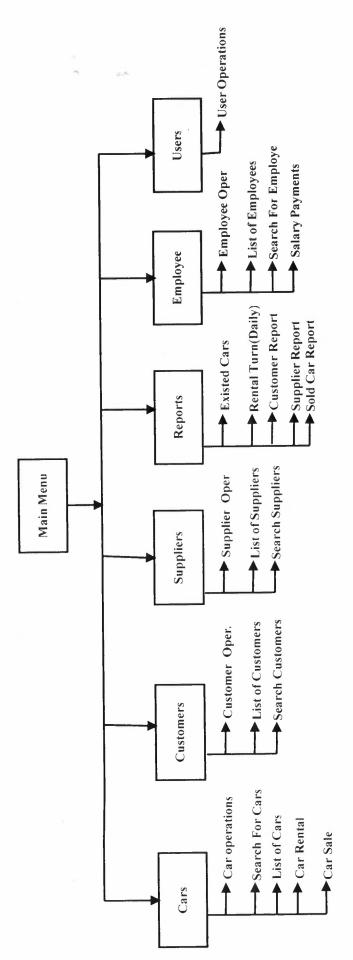
Bayiler Table:



Relationship Between Tables:

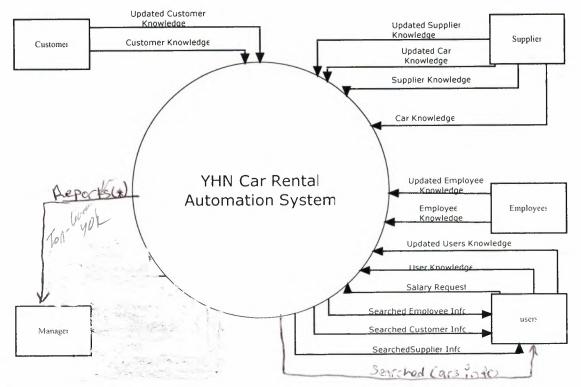


Data Block Diagrams of YHN Car Rental Automation System



Data Flow Diagram

Contex Diagram for YHN Car Rental Automation System



REPORTS*

- 1)Customer Reports
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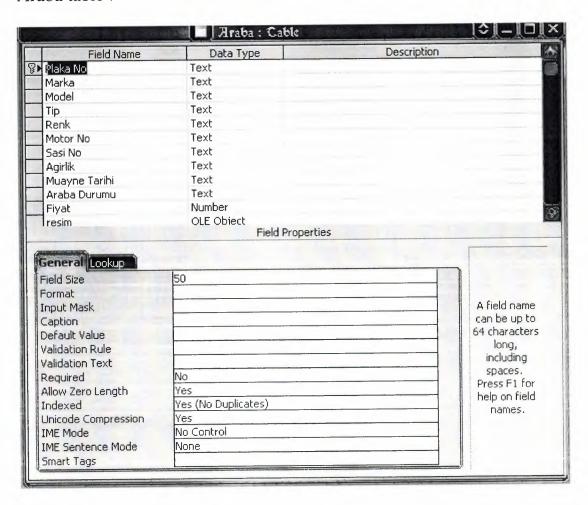
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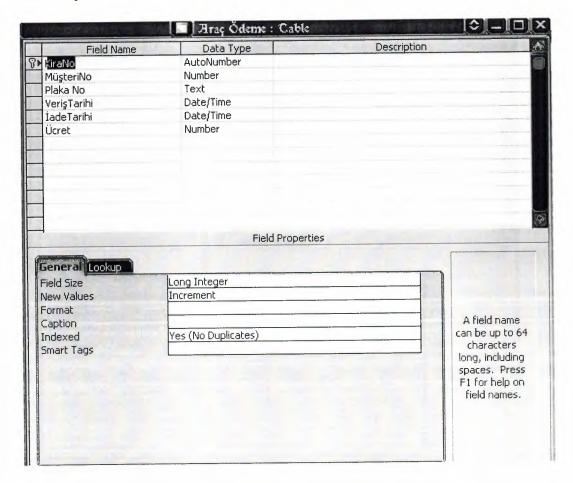
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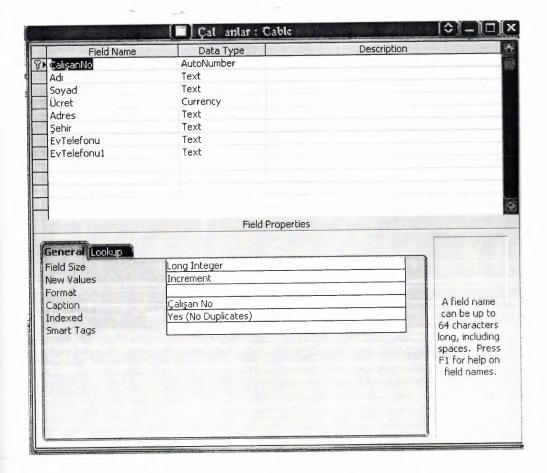
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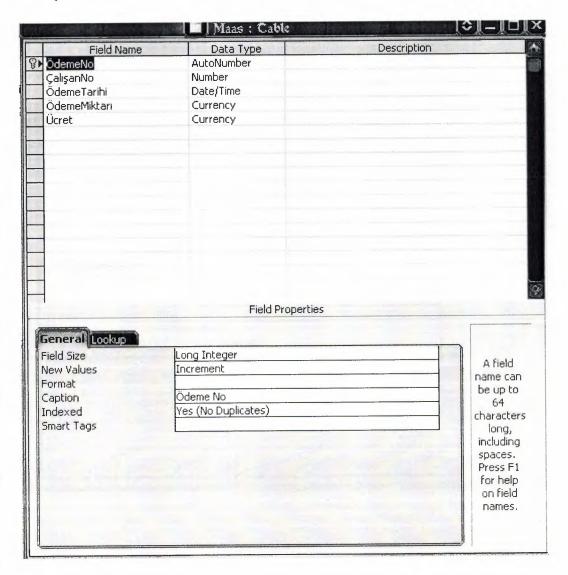
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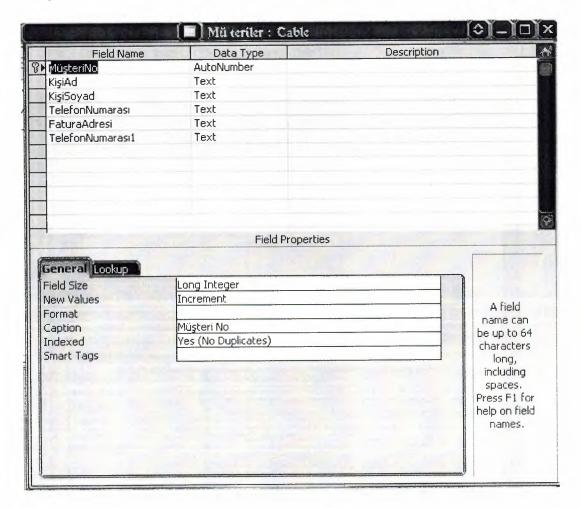
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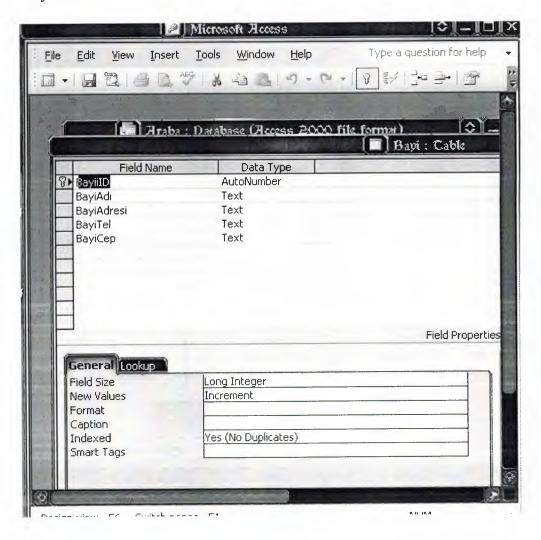
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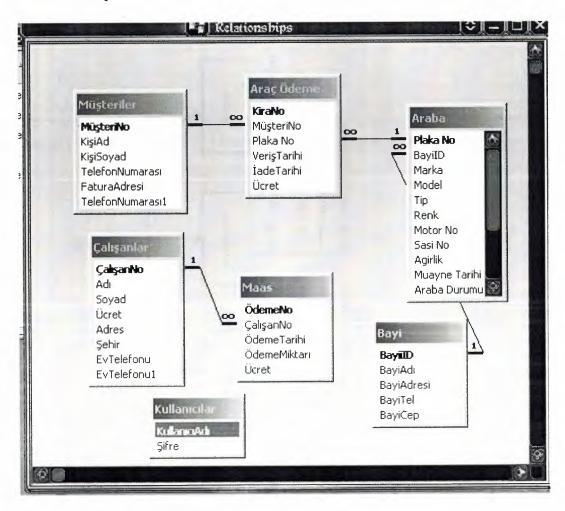
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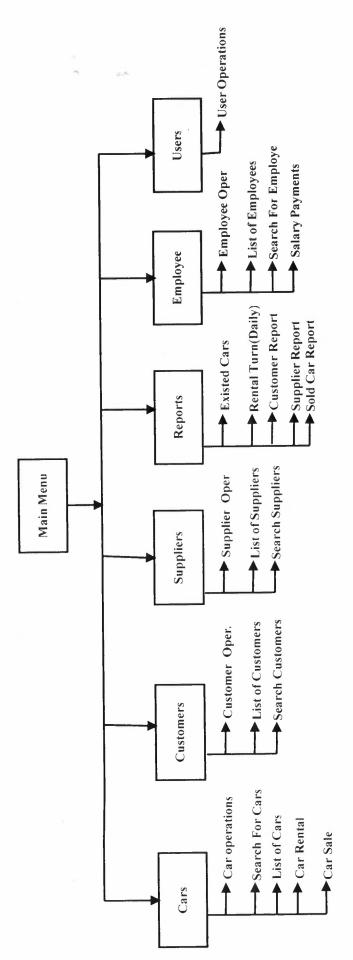
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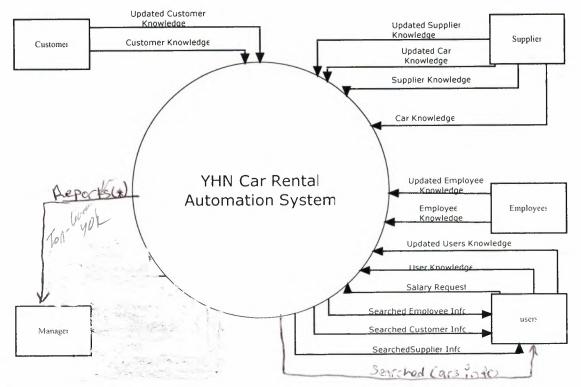


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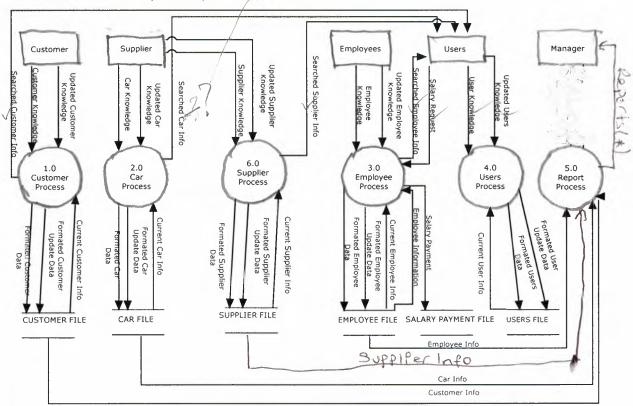
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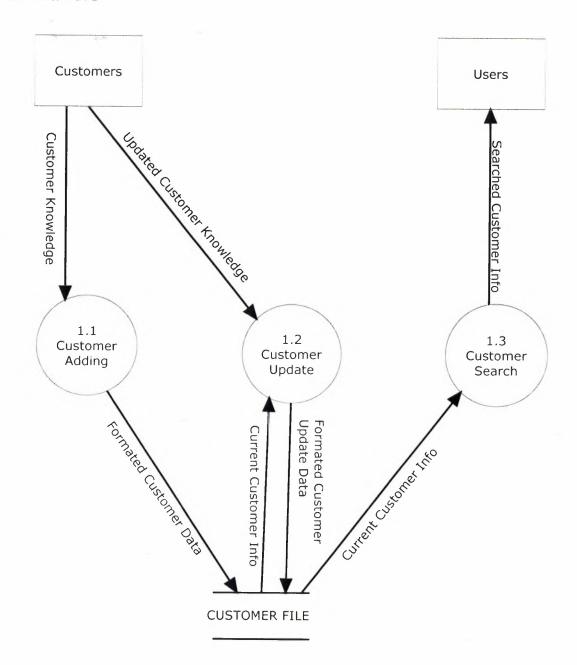
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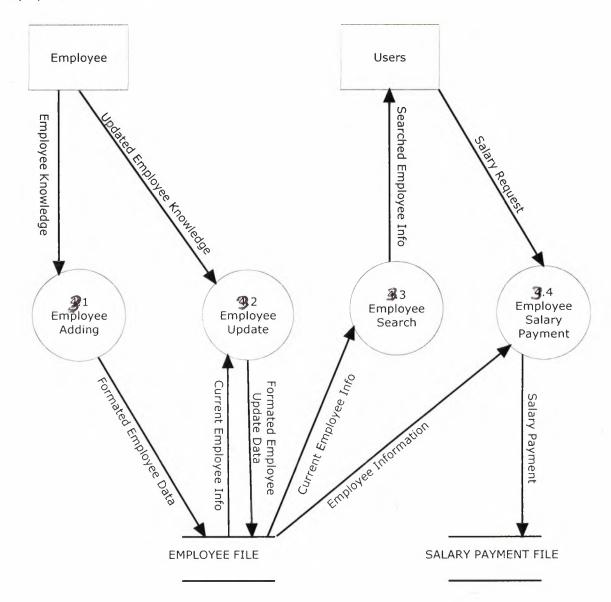
YHN rental Automation System: Top Level DFD

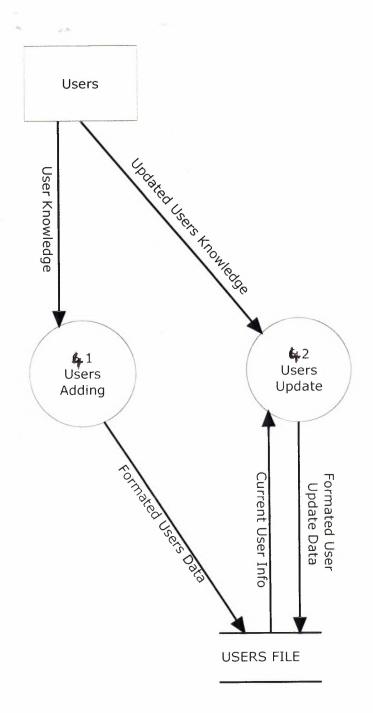


Customers Detail DFD

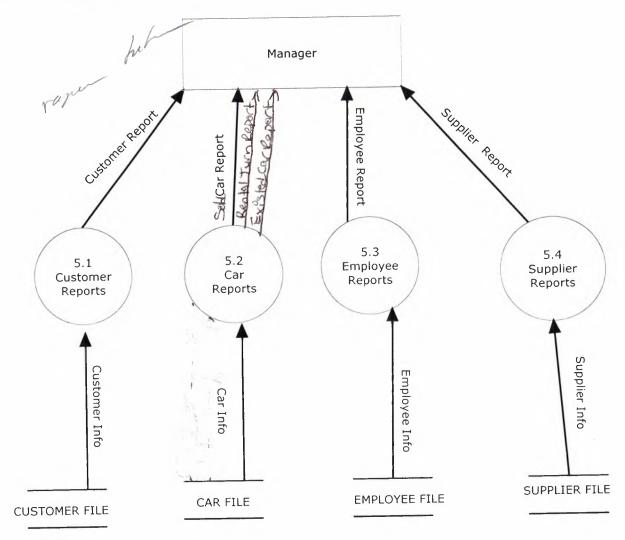


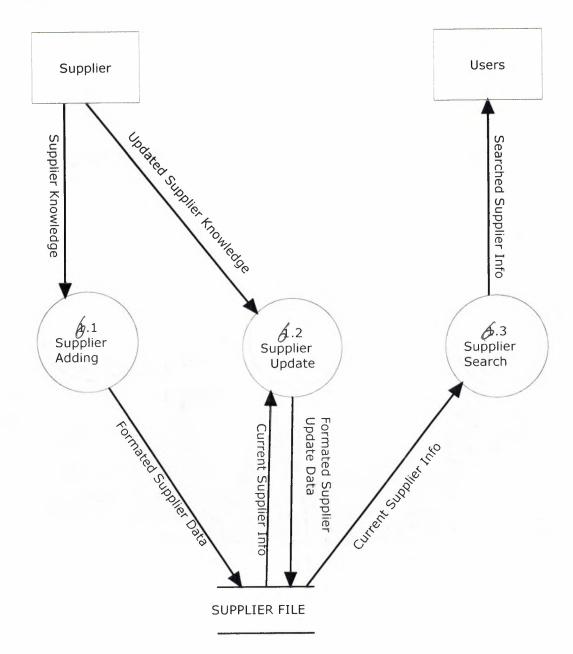
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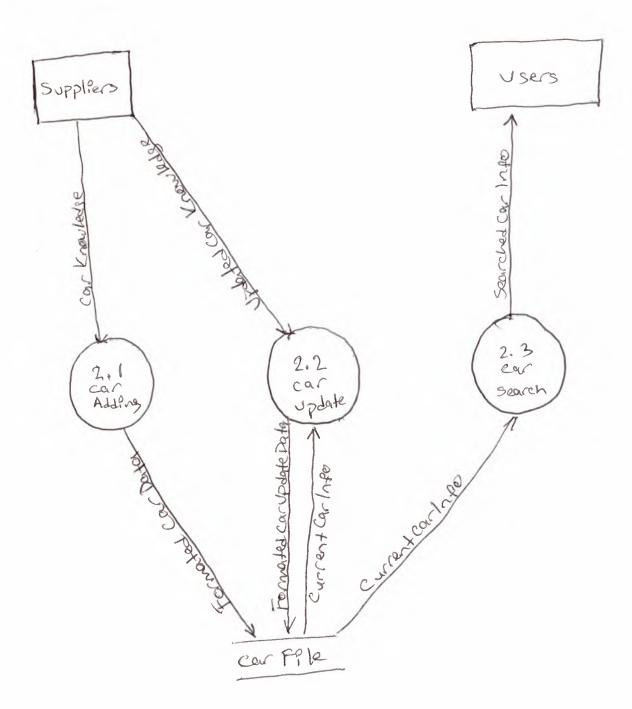




Report Process Detail DFD







V.USER MANUAL

USER GUIDELINES

Here I will explain in detail how the system works as the user moves from process to process. The system begins with the main menu that is explained below;

Main Menu

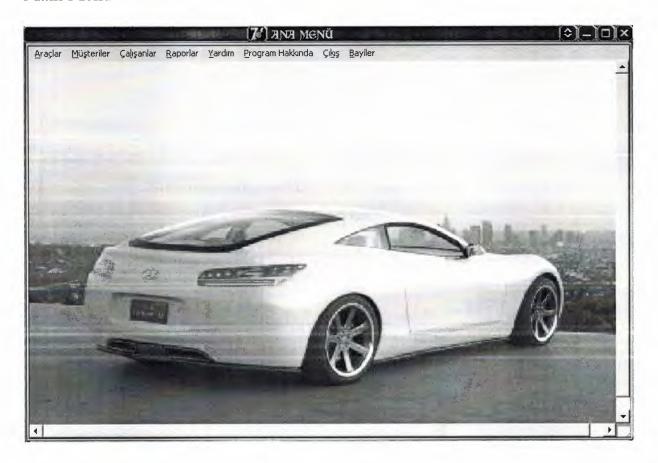


Figure 1

This is the main menu that has 8 main option to be chosen by the user.

- 1. Araçlar
- 2. Müşteriler
- 3. Çalışanlar
- 4. Raporlar
- 5. Yardım
- 6. Program Hakkında
- 7. Bayiler
- 8. Çıkış

Each of the process will be explained in detail. On choosing the last option of Exit the system will prompt user if he wishes to exit the system or not by a message box that contains yes or no buttons. By clicking yes the system will be closed as shown in figure 2.

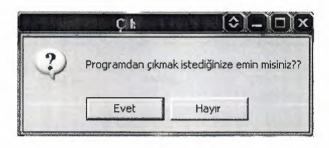


Figure 2

Araç işlemleri

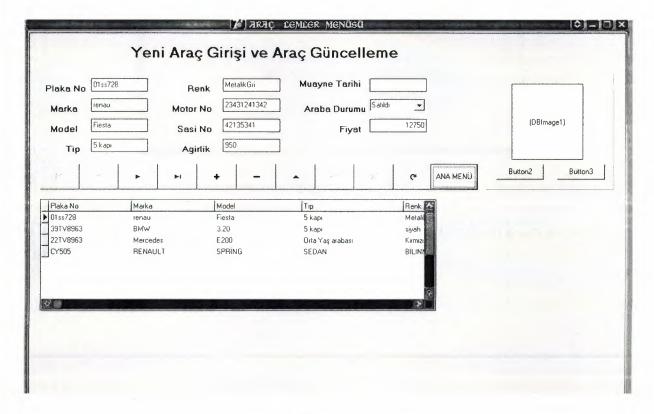


Figure 3

This is the first process of araç işlemleri where we register the cars by providing its information. There are few utilities. To add new click + button and fill the information box and then click the ok button. After the record is retrieved from the database it can be edited using Edit button or delete using delete button. Ana menü button is used to go back to the previous menu. Show the figure 3.

Araç Arama



Figure 4

This menu use the search cars by plakano, model, şasino and click the ara and found the cars. show figure 4.

Mevcut Araçlar Listesi

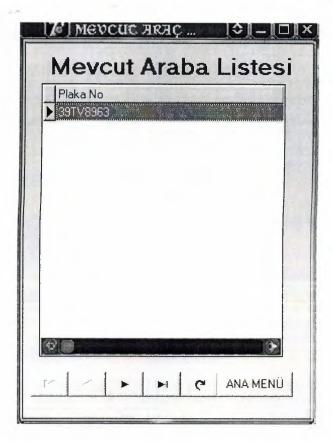


Figure 5

This form shows us existing the all cars in the database and we sill see it.figure 5 we will see it.

Araç Kiralama

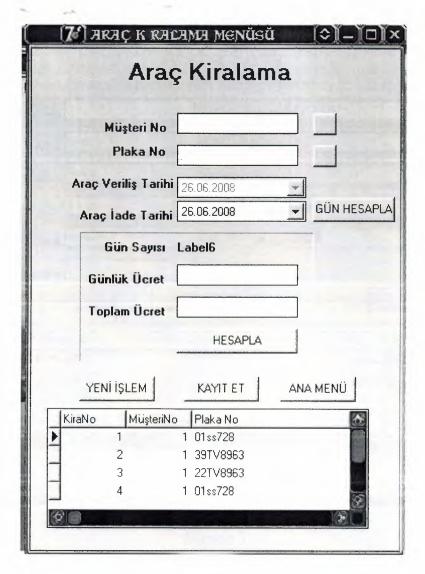


Figure 6

This form if we rent of the car and how much money to pay the customer.and push the kayıt et and save the information and press the ana menü go to the main menü.figure 6.

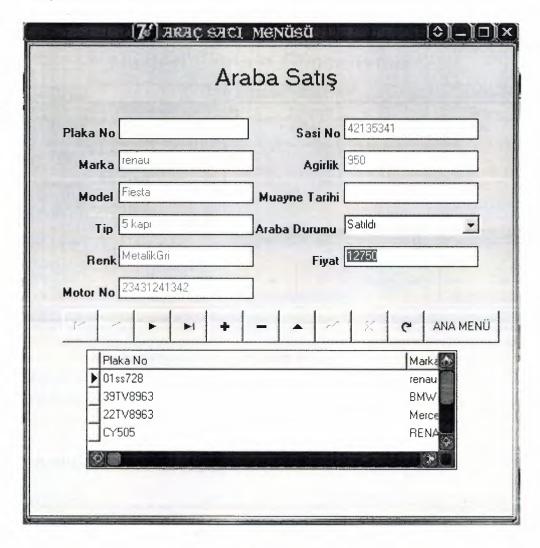


Figure 7

The cars sale menu use the navigator button and sold the cars.And push the ana menü button back to the main menu.figure 7.



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I.ACKNOWLEDGEMENTS

This project will be prepared by me, with advise of Dr. Yalçın AKÇALI and Mrs. Nadire ÇAVUŞ and Mr. Ilham HÜSEYNOV to be Department Of Information Systems.

I have to thank my family for their support in my educational life in Near East University.

Also I must thank to my best friends for helping me during my project process.

II.ABSTRACT

This software is a specific program only suitable for rent a car management system that makes business in keeping several cars and renting them to the public. The renting system is divided into 6 main processes in order for better user interface and friendly environment.

My solution to the problem I guess is quite understandable as I divided the system into main six processes, such as cars, members, reservations, rentals, reports and accounts. Each of the section I designed is easy to understand and learn fast. There are no menus used but command buttons were preferred instead so all is in front of the user for quick access.

I added user messages as well for the correspondence with the program so user may understand a bit the inside logic of the program how his process is handled.

I hope this software will help the rent a car management business manager keep close eye on his business accounts, his cars and performance, his customers activities using the IRS I designed for the purpose.

As there are hundreds of ways to solve any problem so if you find any suggestions about my program please do not hesitate telling me them.

III. INTRODUCTION

The field of Information Technology is an exciting and ever-changing field. If you are a life-long learner and want new challenges everyday, it's always a good idea to think of the program you want to create in terms of its solution. In order to do this, you must have a pretty solid understanding of the programming language that you'll be working in and what you can do with it. Then you should sort out what exactly you're trying to accomplish. What do you want your program to do?

What problem is it solving? Next, divide the program into its various components. Then decide how those components will fit together to execute the program. Once all these have sorted out, you can write each part of the program and put them together. This is the correct way to program.

IV. DESIGN OF THE SYSTEM

EXPLANATION

Processes

1. Cars Processes

Car operation

Car search

Existing cars

Car rental

Car sale

2. Customers Process

Customer operation

Customer search

Existing customer

3. Personnels Process

Personnels operation

Personnel search

Existing personnels

Pay salary

4. Reports Process

Existing cars report

To return cars in a day report

To sell cars report

5.Supplier Process

Supplier operation
Supplier search
Existing Supplier

-Cars process: This process will make easy to adding and updating new customers or existing cars. Search of existing car by licenseplate, model, chassis number. Cars rental and cars sale show in this process. And available to see the all existing car.

-Customer process: To record new customer or update existing customers, this process will be used. Firstly all information about the customer will be entered then click the add button. Search the existing customers by the name, surname, customerid. And show the all existing customers.

-Personnels process: In this process adding and updating personnels new personnels or existing personnels.Personnel search by name,surname,personelid and use this information.Available to see all personnel information.

-Reports process: The report process is directly for managers of the firm. It provides the reports for selected processes. In this process to see existing car, to return cars in a day, sell cars report to see in this process.

-Supplier process: In this process adding and updating supplier new supplier or existing supplier. Personnel search by bayiid, bayiadı and use this information. Available to see all personnel information.

The minimum requirements of the system are as follows;

Intel Pentium III 2.0 GHz or AMD Athlon XP 2000+ (1.6 GHz)

256 MB Ram

40 GB HDD

15'Monitor

Windows XP Home Edition

52 X CD-ROM

The recommended requirements of the system are as follows;

Intel Pentium IV 3.2 GHZ or AMD Athlon 64 Bit Edition 3800+

2048 MB Ram

80 GB HDD

17'Monitor LCD

Windows XP Professional

DVD-RW

In this project I used the Borland's Delphi as programming technology because of the Delphi's easy Object-Oriented coding characteristic. And I used Microsoft Access as database. Because Access's performance is very good when used on a single computer.

THE PROJECT BOUNDRIES

- The program will be designed to run on one computer.
- The program will not work under Linux or other operating systems. Only Microsoft Windows XP is recommended.
- The user should have some computer knowledge.
- There should be a printer connected to the computer so that the system can print out invoices or reports.

TECHNICAL FEASIBILITY

The hardware and requirements that are necessary for the system are as follows:

- Computer
- Printer

OPERATIONAL FEASIBILITY

- The users should be educated about the usage of the new system.
- The people who work on the system must be given technical support.
- The program should be developed according to the users wants.

ECONOMICAL FEASIBILITY

- The advantage of using my YHN Car Rental Program as economical result is; it will be cheaper than the other ones.
- It will be very easy to use.
- An extra hardware or software is not needed to use the program.
- Another advantage is saving time. With saving time we can increase our service performance.
- By using this system it minimizes the risk of making mistakes.

THE REQUIREMENT DETERMINATION

The requirements made by the users and customers are as follows:

- To increase service.
- To use only one program to control all processes.

THE OLD SYSTEM CAPABILITIES

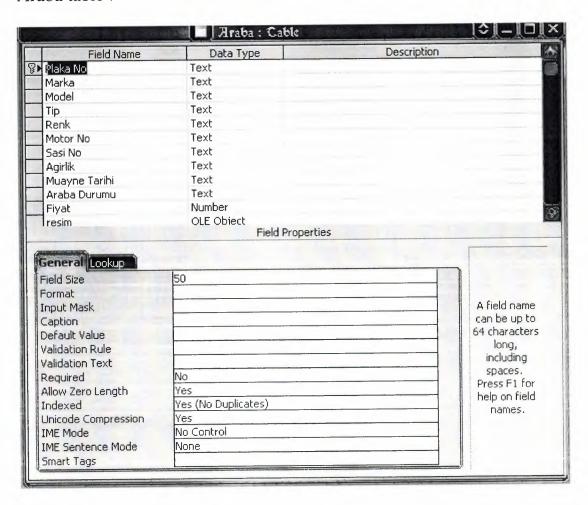
- There was an existing software but its complex and old.
- Sometimes the data got lost on the database.

THE NEW SYSTEM'S PROVIDENCES

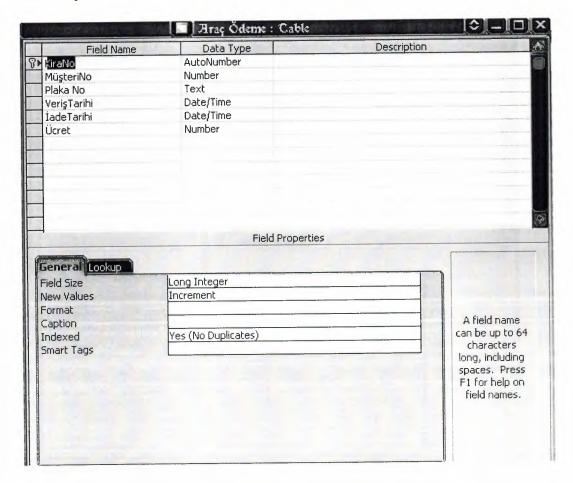
- The new system should be trustable.
- The system will only be accessed by the authorized users.
- The database tables should include all information about the YHN Car Rental Program

Database Design:

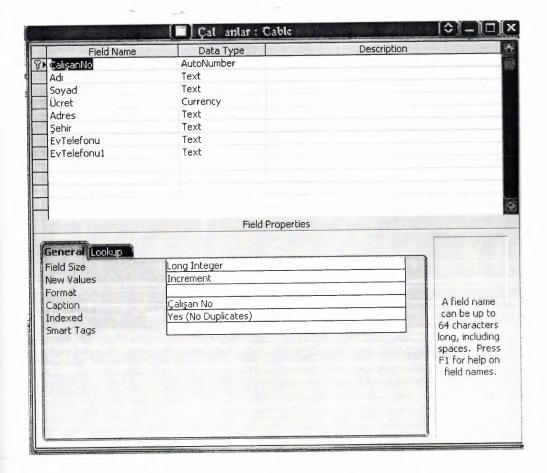
Araba table:



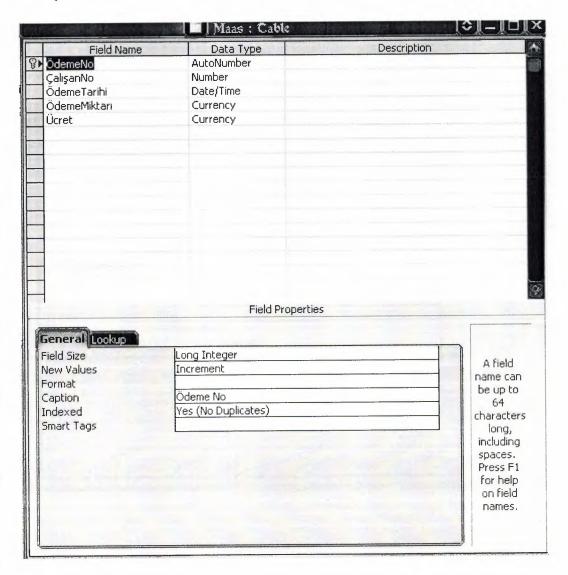
Araç Ödeme Table:



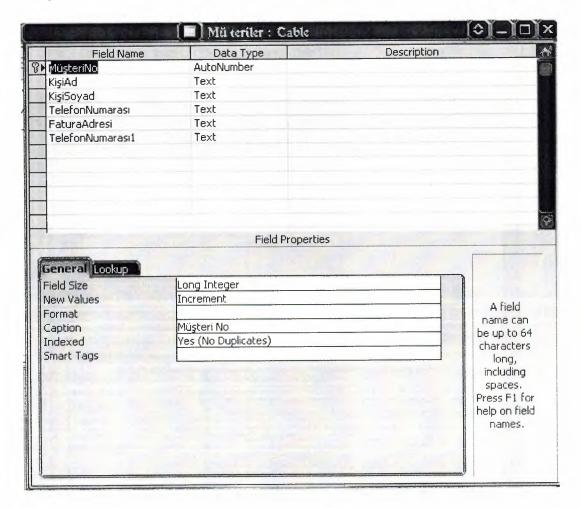
Çalışanlar Table :



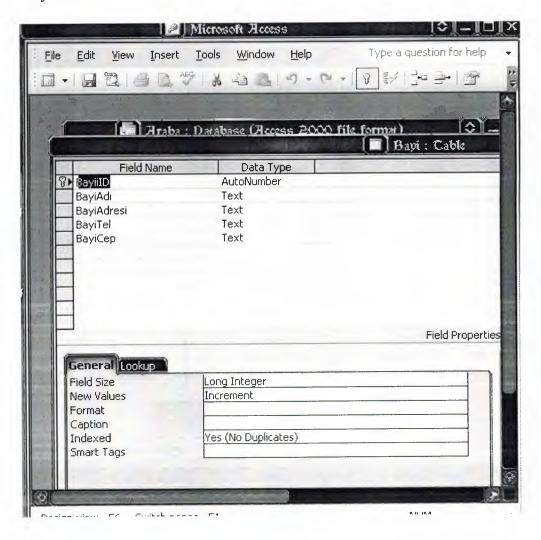
Maaş Table :



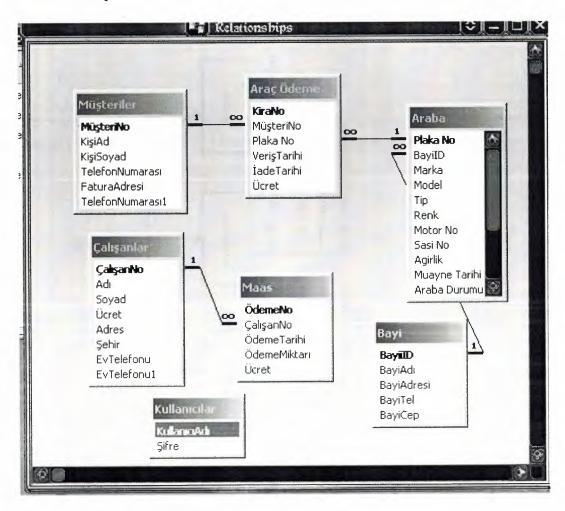
Müşteriler Table:



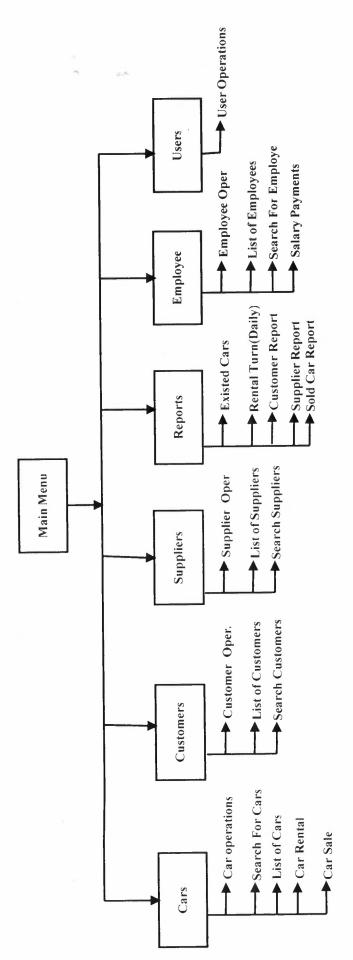
Bayiler Table:



Relationship Between Tables:

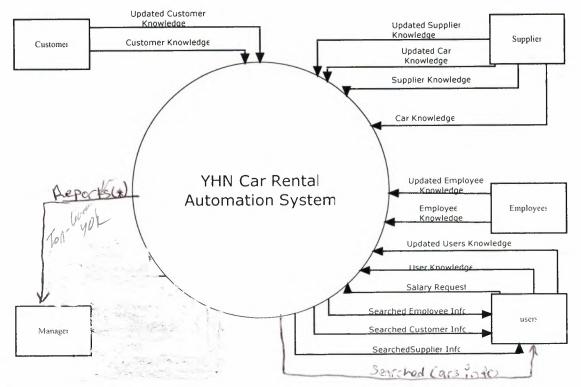


Data Block Diagrams of YHN Car Rental Automation System



Data Flow Diagram

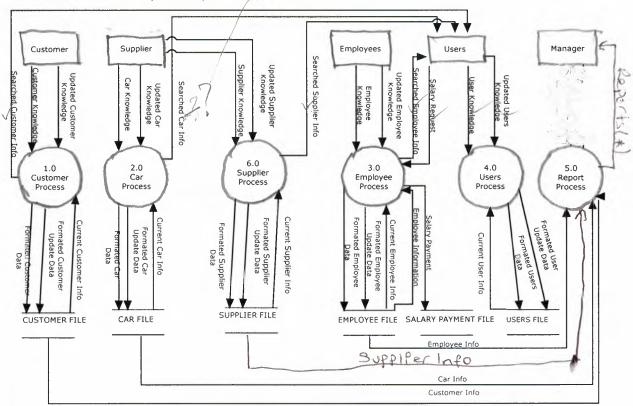
Contex Diagram for YHN Car Rental Automation System



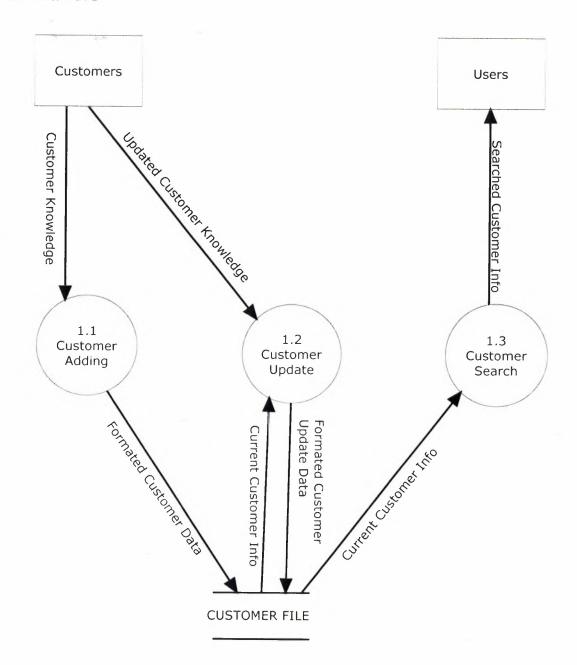
REPORTS*

- 1)Customer Reports
- 2)Existed Cars Reports
- 3)Employee Reports
- 4)Supplier Reports
- 5)Rental Turn Reports
- 6)Sold Car Reports

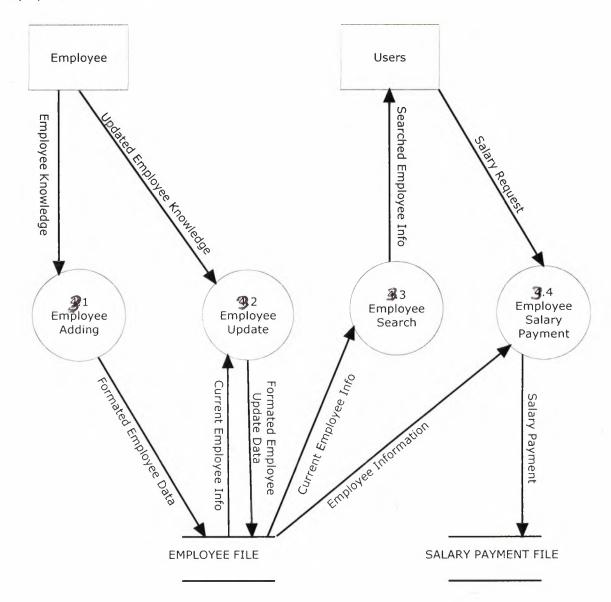
YHN rental Automation System: Top Level DFD

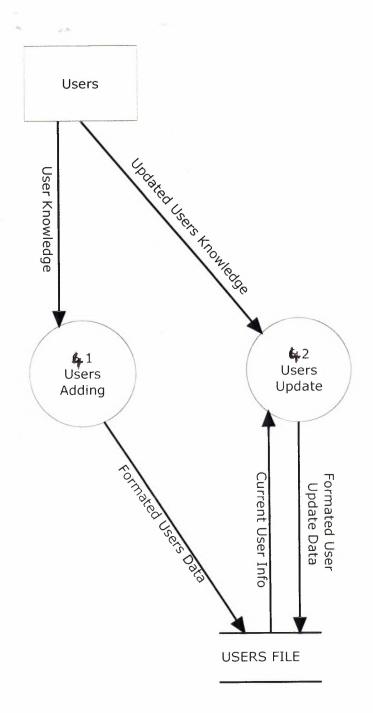


Customers Detail DFD

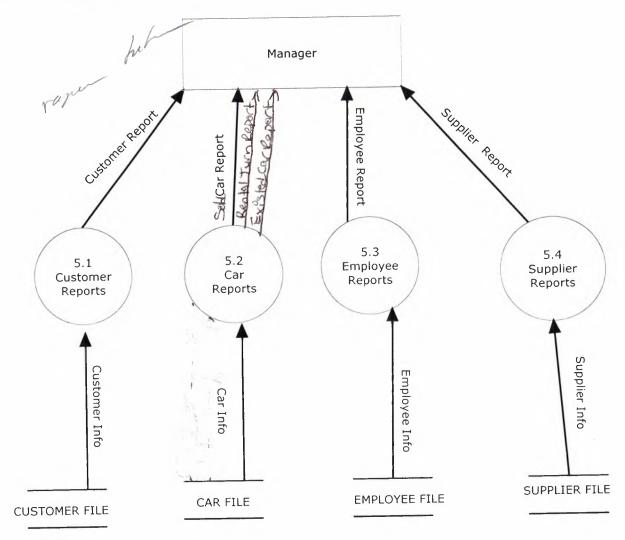


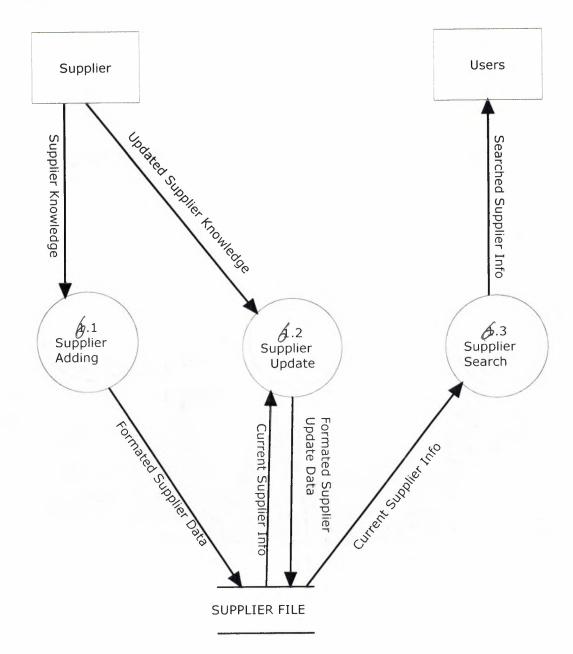
Employee Detail DFD

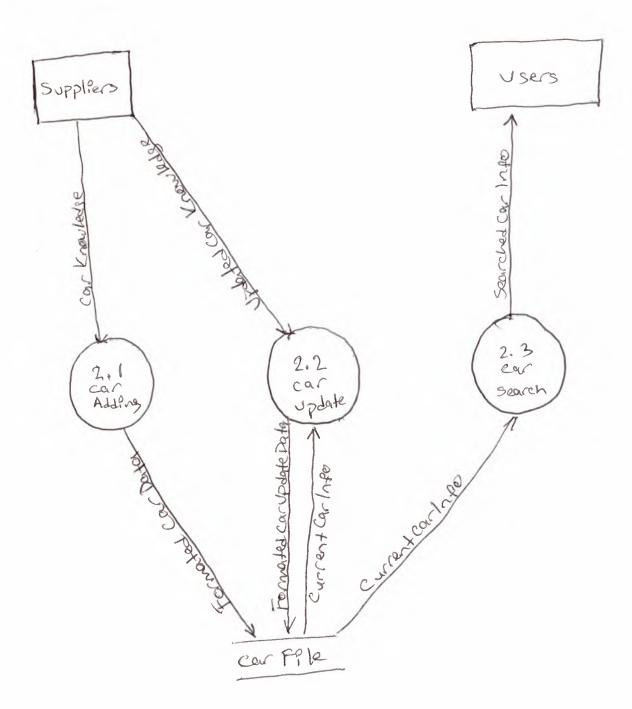




Report Process Detail DFD







V.USER MANUAL

USER GUIDELINES

Here I will explain in detail how the system works as the user moves from process to process. The system begins with the main menu that is explained below;

Main Menu

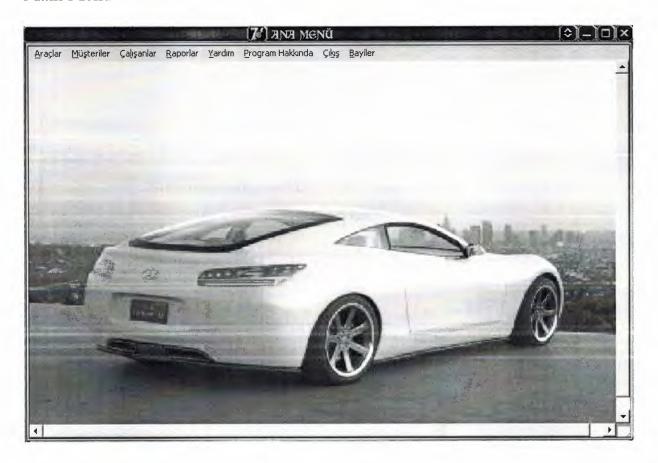


Figure 1

This is the main menu that has 8 main option to be chosen by the user.

- 1. Araçlar
- 2. Müşteriler
- 3. Çalışanlar
- 4. Raporlar
- 5. Yardım
- 6. Program Hakkında
- 7. Bayiler
- 8. Çıkış

Each of the process will be explained in detail. On choosing the last option of Exit the system will prompt user if he wishes to exit the system or not by a message box that contains yes or no buttons. By clicking yes the system will be closed as shown in figure 2.

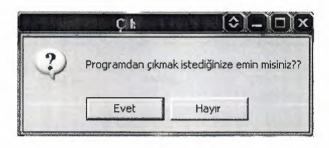


Figure 2

Araç işlemleri

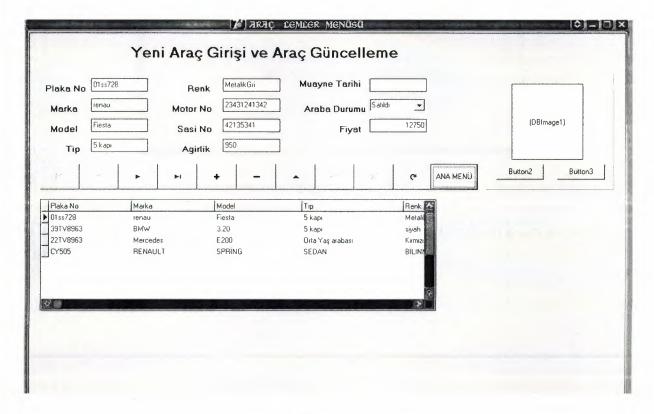


Figure 3

This is the first process of araç işlemleri where we register the cars by providing its information. There are few utilities. To add new click + button and fill the information box and then click the ok button. After the record is retrieved from the database it can be edited using Edit button or delete using delete button. Ana menü button is used to go back to the previous menu. Show the figure 3.

Araç Arama



Figure 4

This menu use the search cars by plakano, model, şasino and click the ara and found the cars. show figure 4.

Mevcut Araçlar Listesi

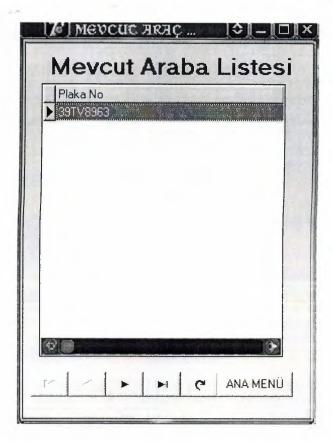


Figure 5

This form shows us existing the all cars in the database and we sill see it.figure 5 we will see it.

Araç Kiralama

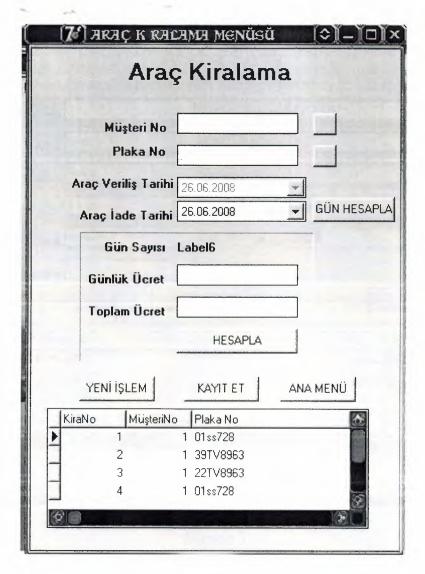


Figure 6

This form if we rent of the car and how much money to pay the customer.and push the kayıt et and save the information and press the ana menü go to the main menü.figure 6.

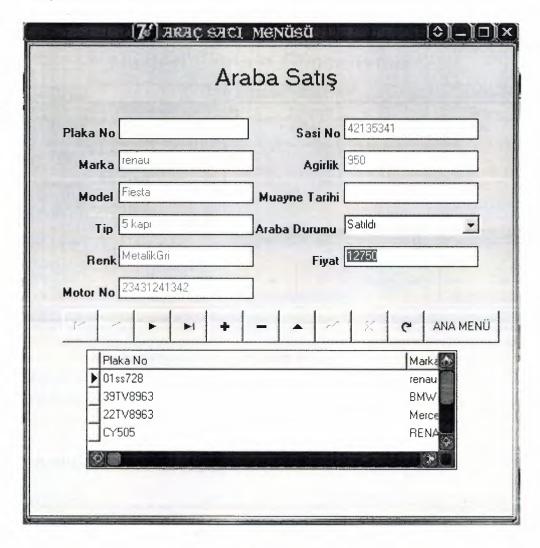


Figure 7

The cars sale menu use the navigator button and sold the cars.And push the ana menü button back to the main menu.figure 7.

Müşteri İşlemleri

	[7€] MÜ ₹	cer cemce	er .		[\$][-	
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Müşteri No	1	MüşteriNo	KişiAd		KişiSoyad	
Kişi Ad Serh	an		Serhan Melis		Eldemir Baki	
Kişi Soyadı Elde						
Telefon Numarası 0392						
Cep Telefonu 0538	56817570					<u>~</u>
Fatura Adresi Lefk	oşa	Ø ()				8
					OFI	
					UKI	
F- F-	► N	+ ^	× ×	C .		Ok!

Figure 8

If the customer comes to rent a car we use the this form and apply to customer.figure 8.

Müşteri Arama



Figure 9

We use the customer search by customerid, customername, customers urname and press the ara button and we will see it.figure 9.

Kayıtlı Müşteriler

Kayıtlı	Bütün	Müşterile	r
MüşteriNo	KişiAd		KişiSoyad 🚪
)	Serhan		Eldemir
	2 Melis		Baki
80			(2)
5-20-		1 1 0	ANA MENÜ

Figure 10

We will see the all of the customers.figure 10.

Çalışan İşlemleri

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	ς	Çalışan İşlemleri	
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Adı	Mert	2 ayhan	
Soyadı	Mekik		· ·
Ücret	75		
Adres	Metropol		~ X C
Şehir	Lefkoşa		
EvTelefonu	1234567	ANA MENÜ	
Cep Telefon	7654321		

Figure 11

We use the new workers and update the existing workers use this form and we will see it.figure 11.

Çalışan Arama



Figure 12

We use the workers search by workerid, workername, workersurname and see it.figure 12.

Varolan çalışanlar

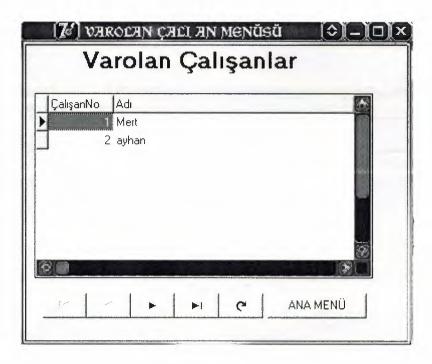


Figure 13

We will see the existing workers.figure 13.

Maaş Ödeme

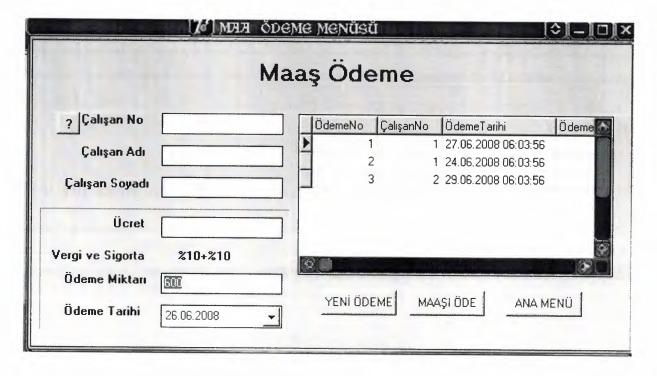


Figure14

We choose the workers and he or she how much money pay to workers we will make it.figure 14.

Mevcut Araçlar



Figure 15

We will see the existing cars in the reports.figure 15.

Gün İçinde Geri Dönen Araçlar

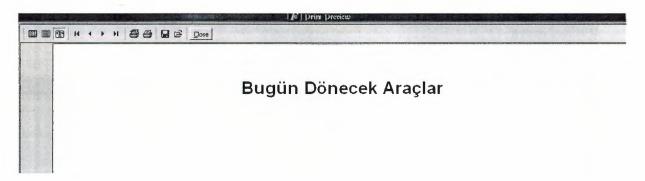


Figure 16

We will see the return the cars in a day.figure 16.

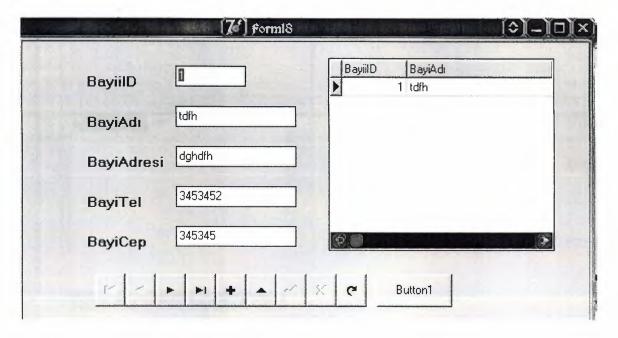
Satılan Araçlar



Figure 17

We will see the sold cars and how much money.figure 17.

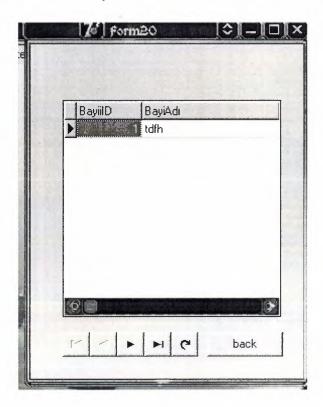
Bayi İşlemleri



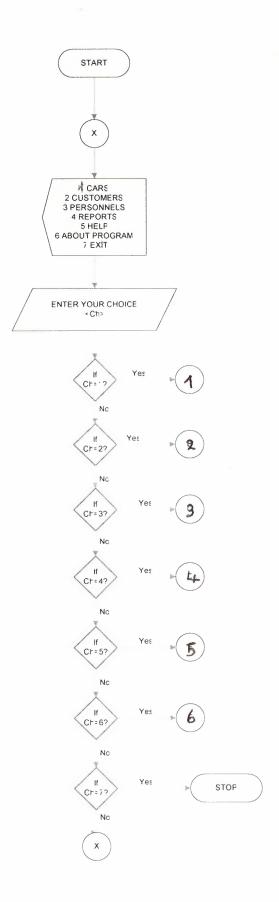
Bayi Arama



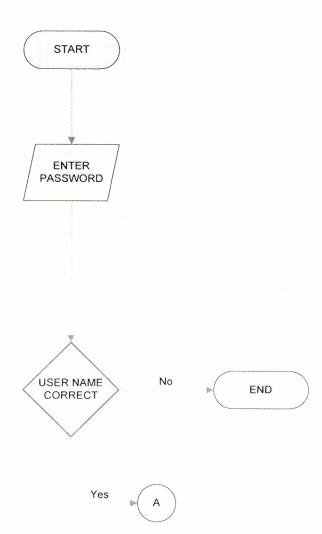
Varolan bayiler



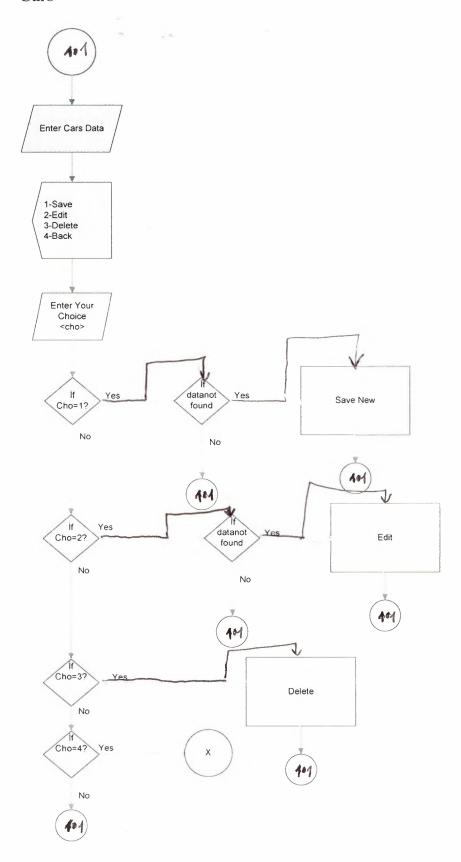
Flowchart Main menu



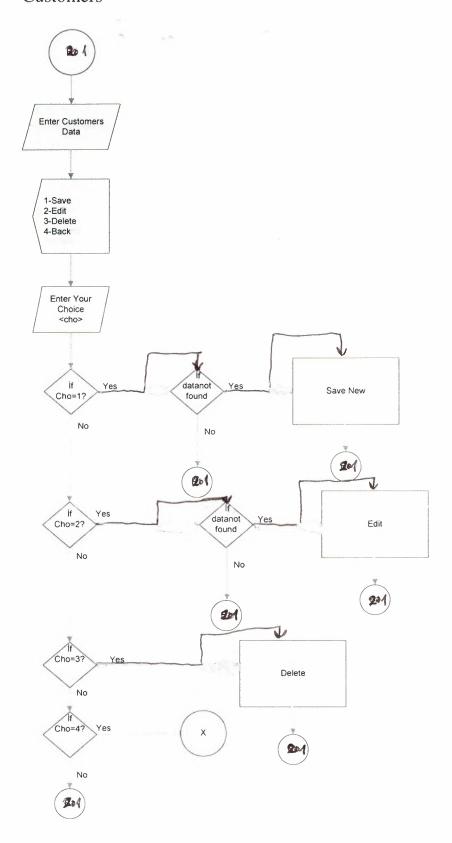
Password



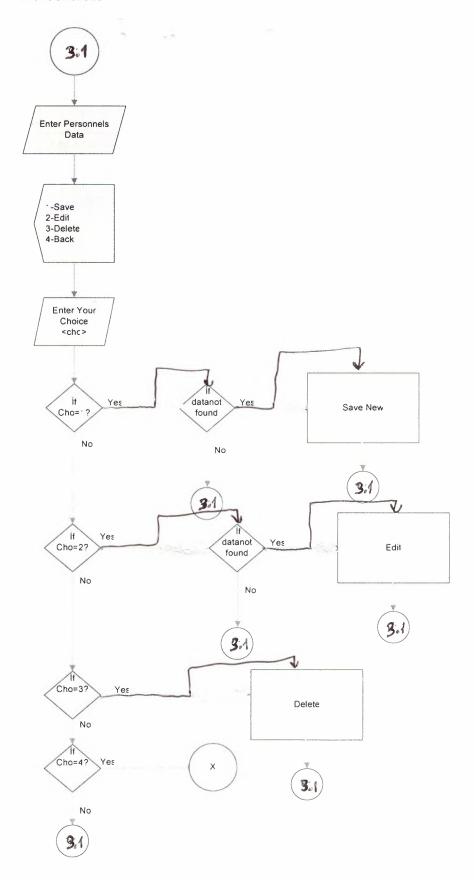
Cars



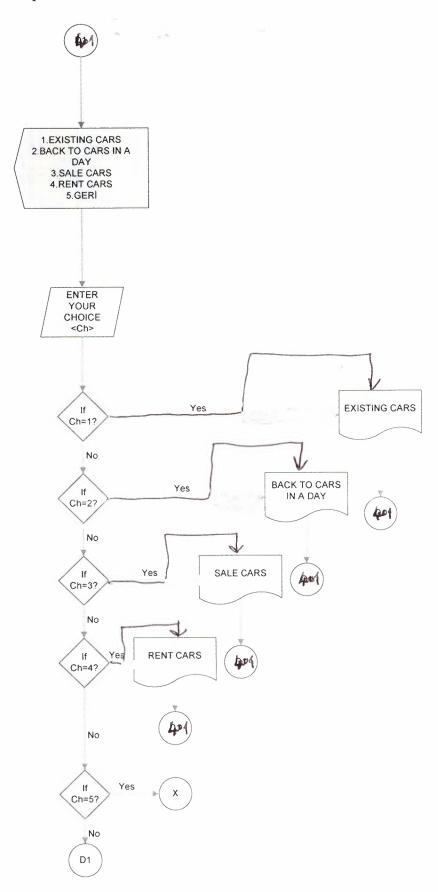
Customers



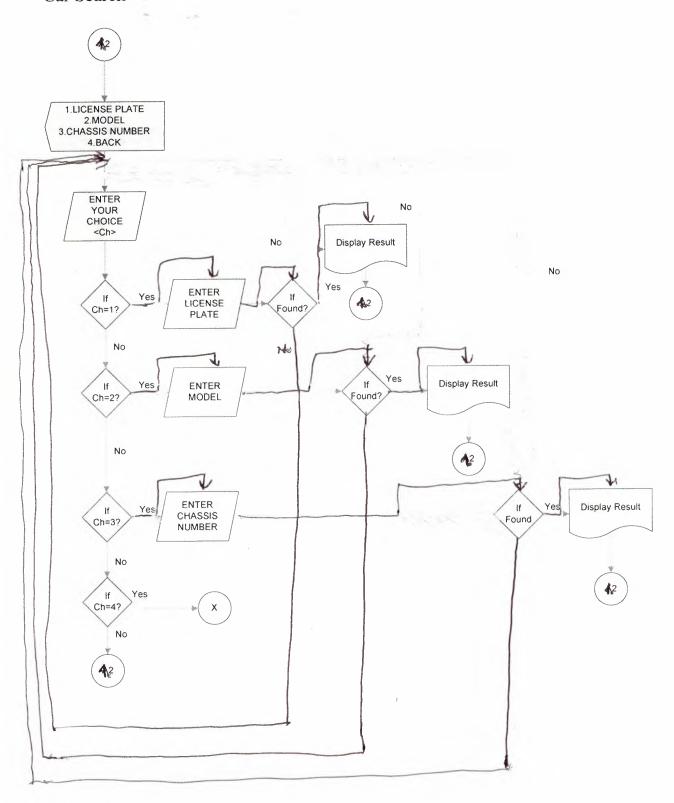
Personnels



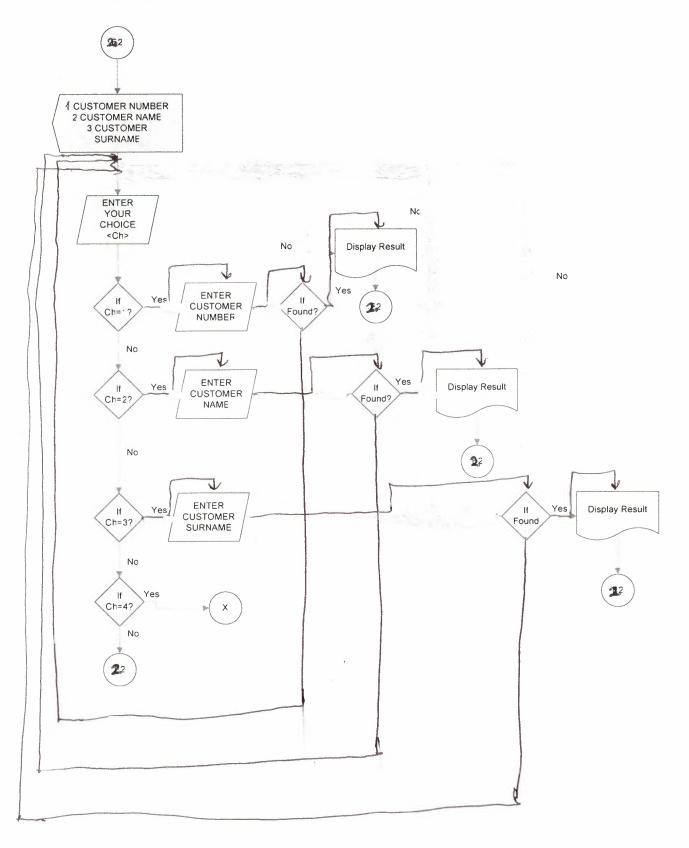
Reports



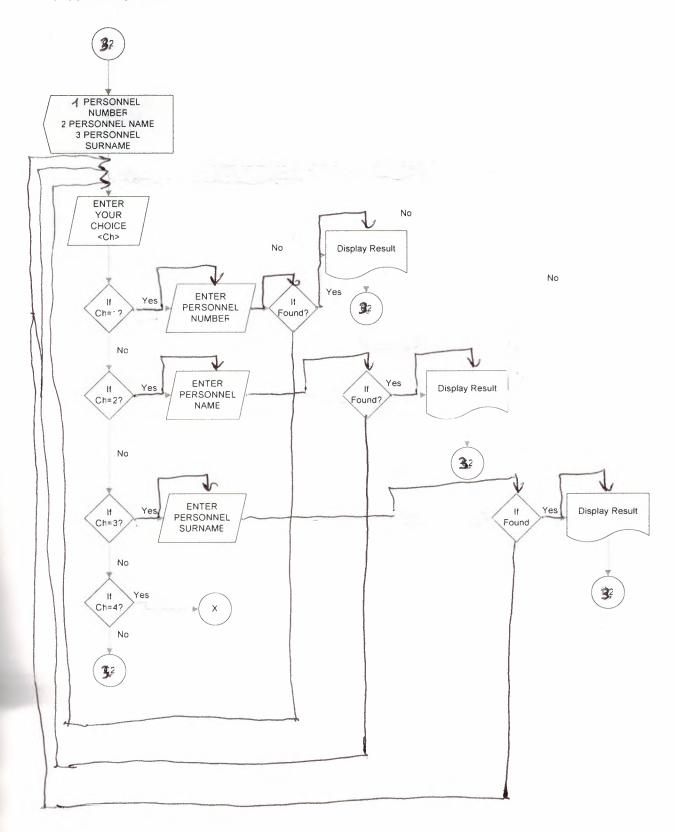
Car Search



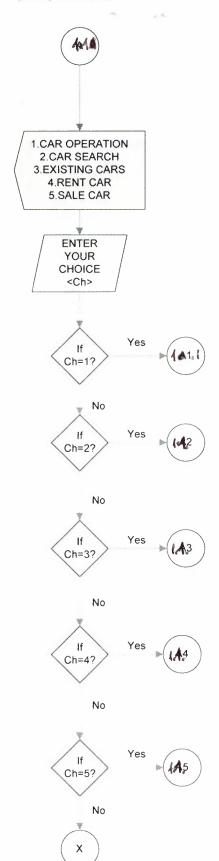
Customer Search



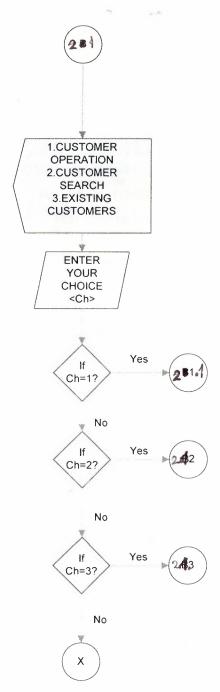
Personnel Search



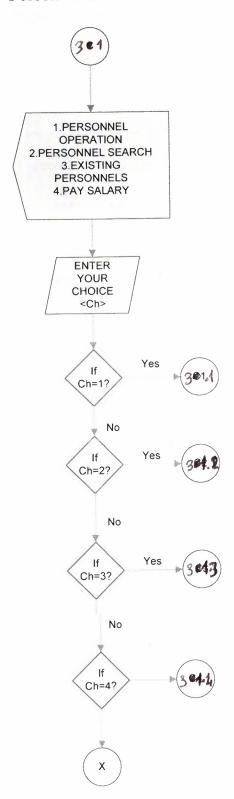
Car Submenu



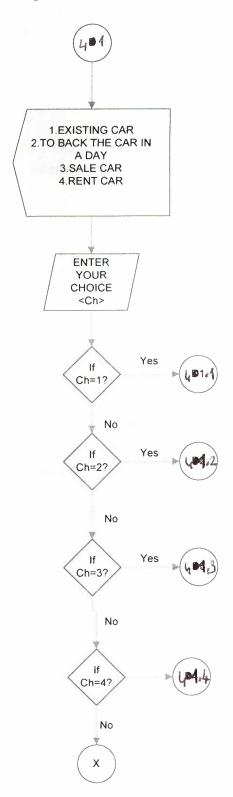
Customer Submenu



Personnel Submenu



Report Submenu



Exist Cars



Exist Customers



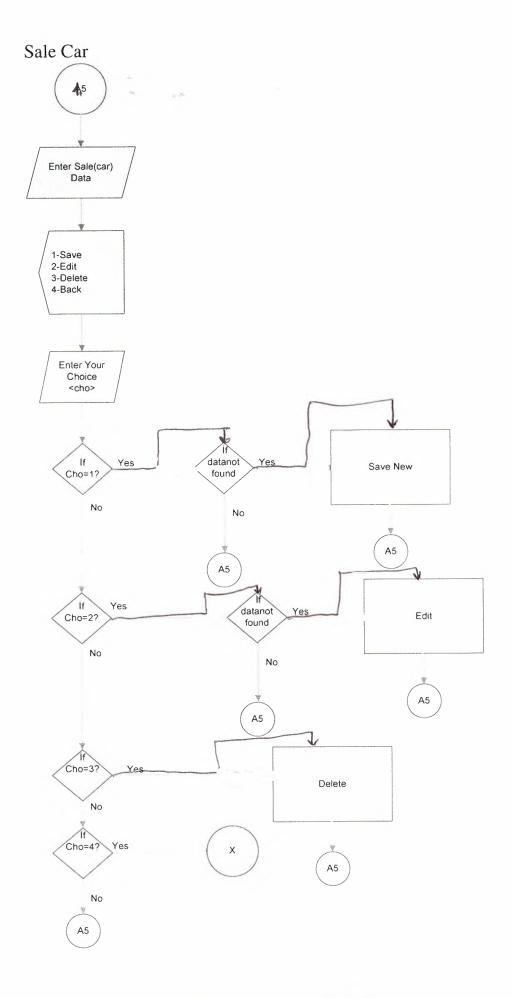




Exist Personnels



TORARY TORARY



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- 1-)www.delphiturk.com.tr
- 2-)www.programlama.com
- 3-)www.turkeycodes.com
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