



**NEAR EAST UNIVERSITY**  
**FACULTY OF ECONOMICS AND**  
**ADMINISTRATIVE SCIENCES**

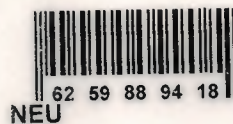
**DEPARTMENT OF COMPUTER**  
**INFORMATION SYSTEMS**

2006/2007 SPRING TERM  
CIS 400  
(GRADUATION PROJECT)

**DRY CLEANING MANAGEMENT SYSTEM**

SUBMITTED TO : DEPT OF. CIS

SUBMITTED BY : Ali DEDEOĞLU (20032759)



LEFKOŞA,  
2007



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The Dry Cleaning Management System is a program that enables the users to simply manage their clothes with out having any trouble and with out mixing them.

The program will accept items, mainly clothing such as trousers, ties, skirts and so on.

The reason why I chose this project topic is that my uncle owns a dry cleaning shop in Nicosia and is having problems with mixing up customers clothes.

One of the main importance's of the program is that it should be very user friendly. So that anyone who has knowledge and who hasn't got any knowledge about computers will be able to use it.

The program more or less works like so:

First the customer and his or her information must be recorded in to the program. After that the items of the customer should be collected, as with the submission date. After the items of the customer have been cleaned, the items will be returned to the customers by showing the ticket. After the customer has received his or her items they will receive a receipt.

### III. INTRODUCTION

The computer world is speedily changing and becoming more and more advanced every passing day. To be realistic the dry cleaning does not require computer systems that much but why in the old world when we can go along with the new world. It might be a little bit expensive and cost a little bit more money than using a pen and paper but it is more guaranteed that the risk of making mistakes will be minimized.

1. **CUSTOMER DATA:** This data is required, so that the user can add, update and manipulate customer processes.
2. **ITEM DATA:** This data is required, so that the user can simply enter the customer's items by using speed buttons in the program. The purpose of this data is to enable the user not to enter anything from the keyboard when inserting items of the customers into the program.
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## **IV.DESIGN OF THE SYSTEM**

### **EXPLANATION**

#### **THE PROCESSES FOR DRY CLEANING MANAGEMENT SYSTEM**

**1. ITEM ACCEPTION PROCESS:** This process will be used to receive the clothing items of the customers. When the items are taken in by the shop, the user will add the customer if it is a new customer, if not enter the existing customers info from the customers database. After that the customer should give the date which he or she wants the items to be ready. After all these processes the system will give the customer and the user a ticket relating with the items and its prices and also it will give the user an additional ticket to put on the clothes in order not to mix them up with other customers items.

**ITEM COLLECTION PROCESS:** This sub-process makes it possible to receive the customers items and the submission date which the customer wants the items to be ready.

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**FINALIZE ACCEPTION PROCESS:** This sub-process gets all the information from all the other sub processes like item information, collected customer data, existing customer data from other sub-processes in order to send the gathered information to the right tables in the database. It also takes the items from the items table according to the items of the customers. And at the end it prints out the tickets to the customer and user.

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- It will be very easy to use, so the users can not need an education about computer knowledge.
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#### **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.
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#### **THE EXISTING SYSTEM CAPABILITIES**

- There was no existing software.
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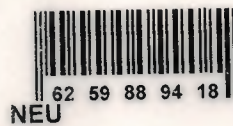
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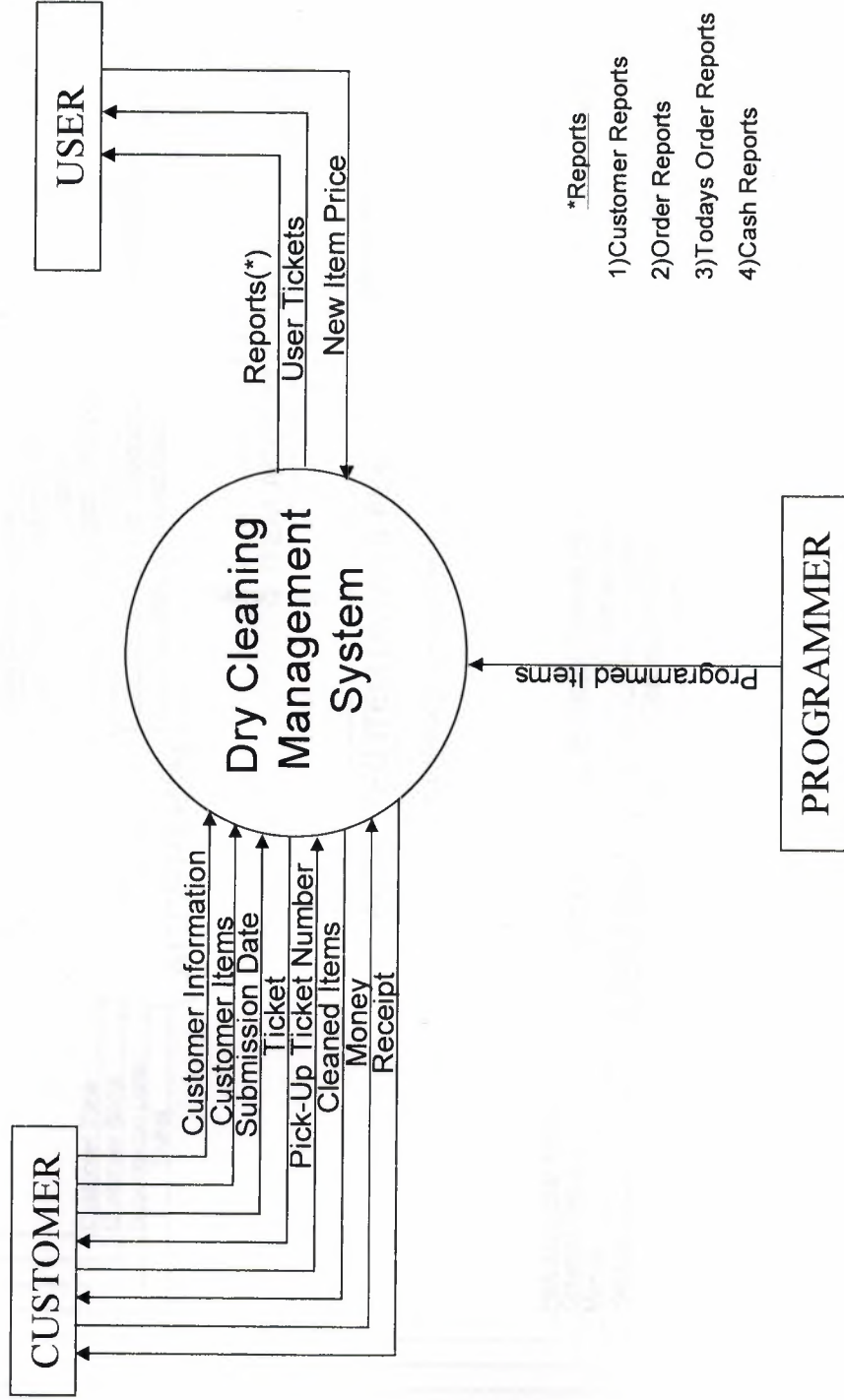
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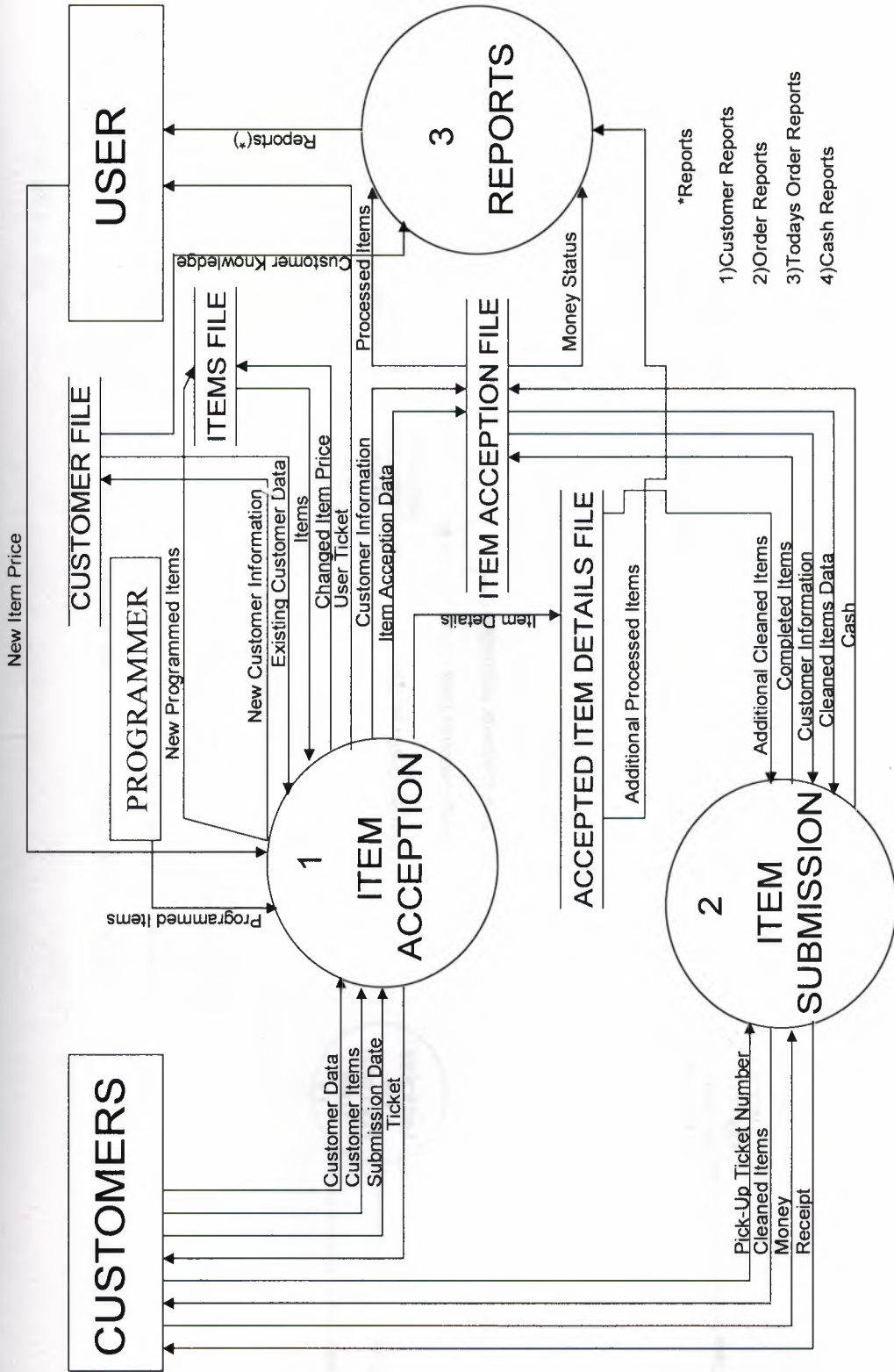
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- The new system should be trustable.
- The new system records customers information.
- The new system gives every customer a different id number, so they will not be mix up.
- The new system will not give the same ticket number to more than one customer.

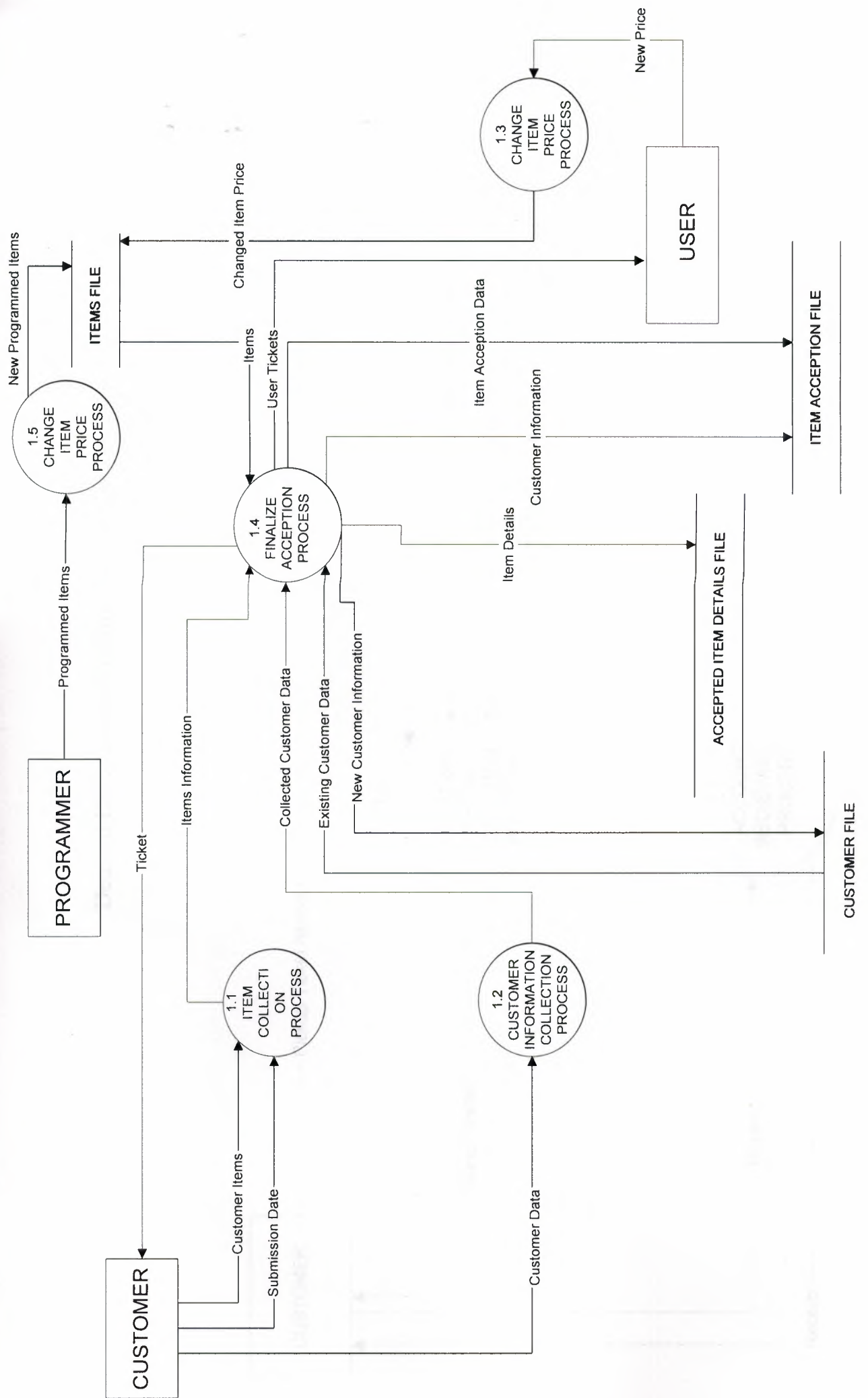
# CONTEXT DFD FOR DRY CLEANING MANAGEMENT SYSTEM



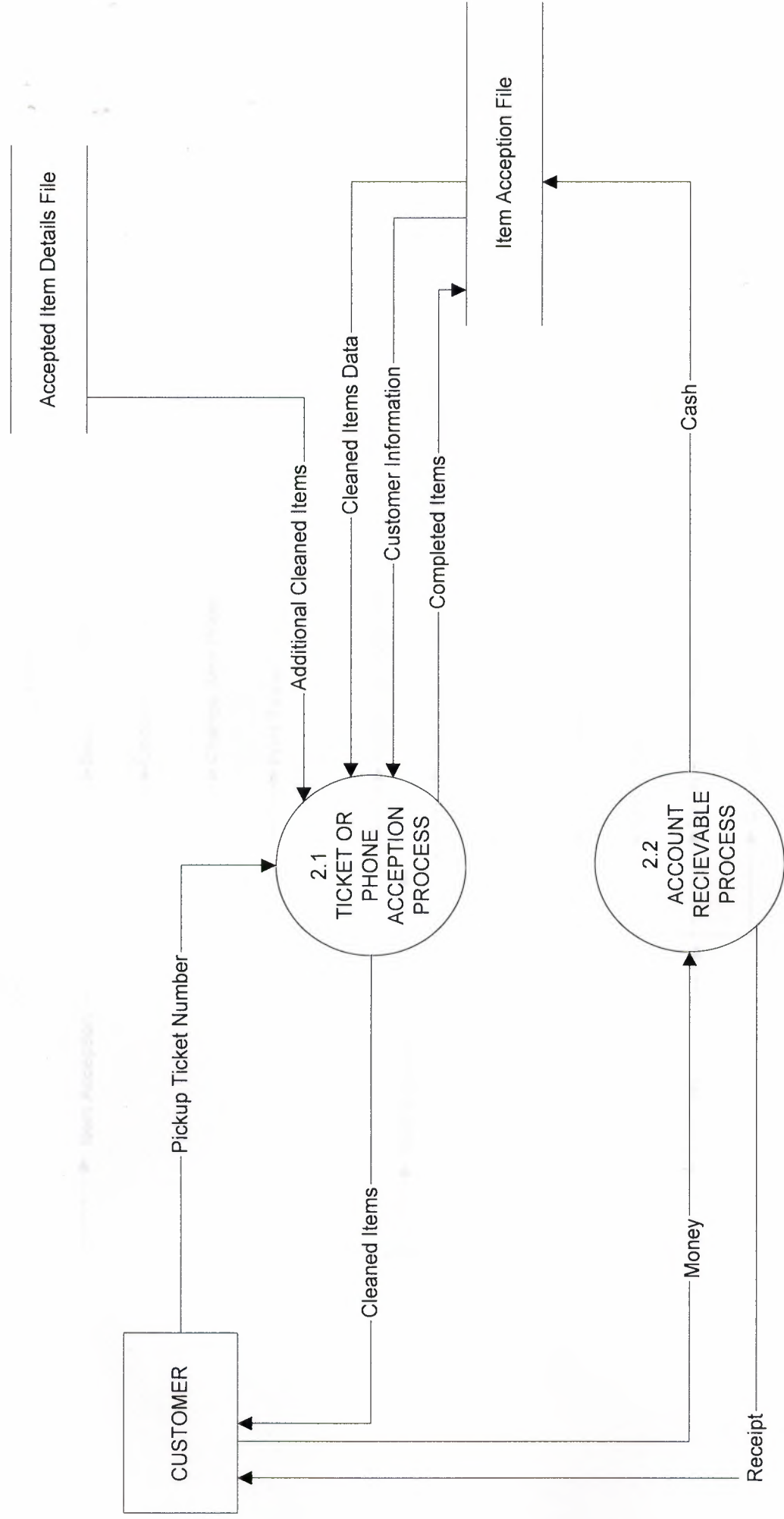
TOP LEVEL DFD FOR DRY CLEANING MANAGEMENT SYSTEM



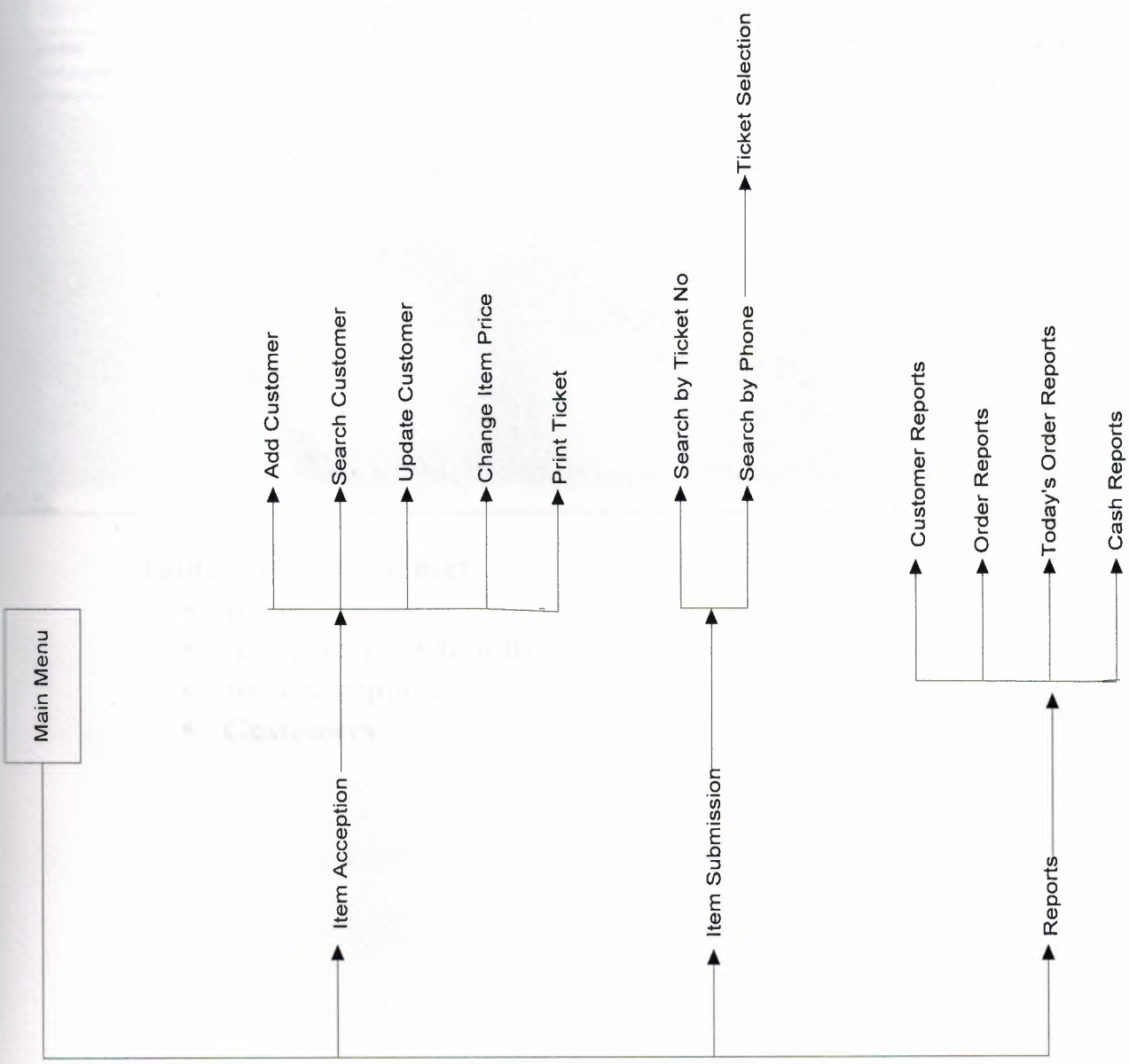




Detailed DFD for Item Submission Process (Process 2)

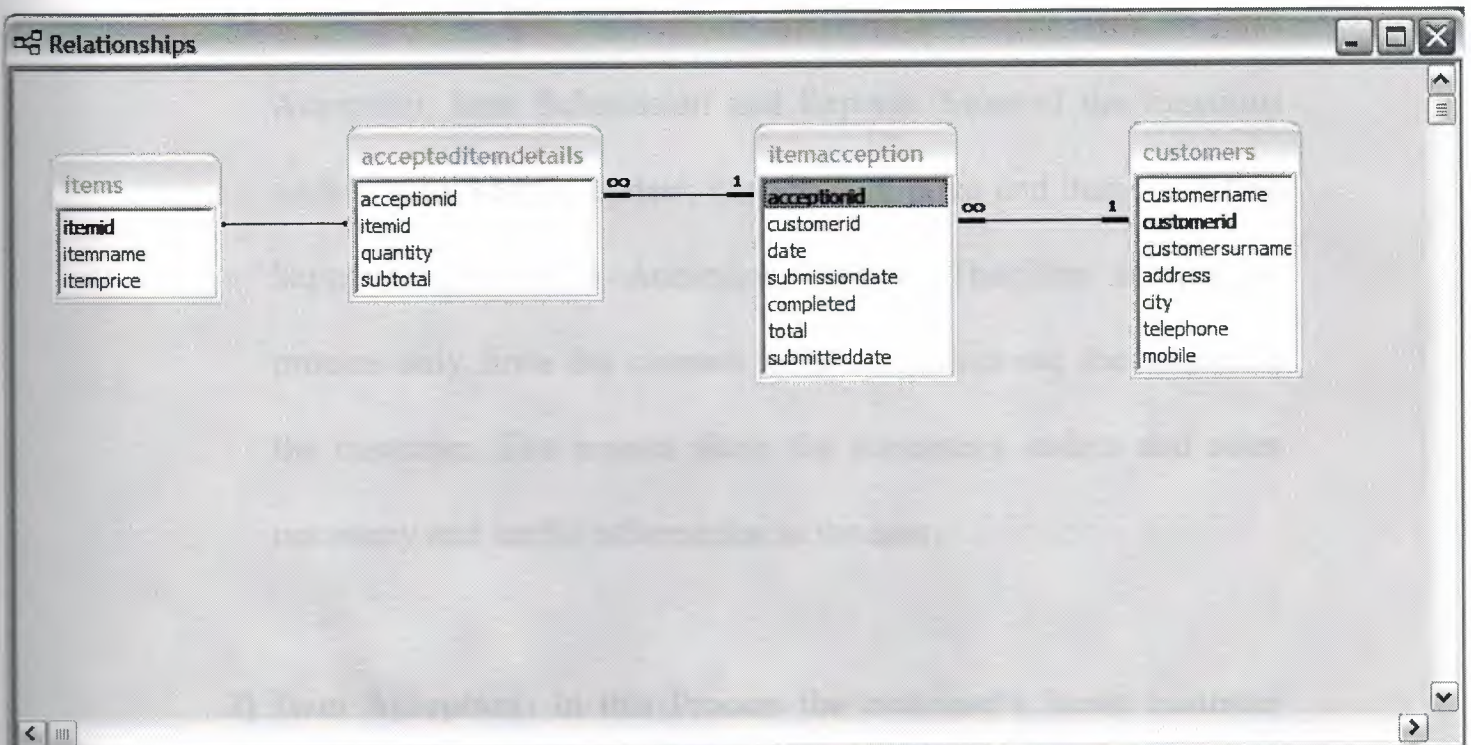


SYSTEM BLOCK DIAGRAM



## DATABASE DESIGN

- **Main Database**



### Tables in the Database:

- **Items**
- **Accepted Item Details**
- **Item Acception**
- **Customers**



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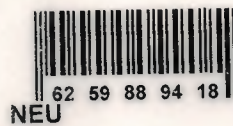
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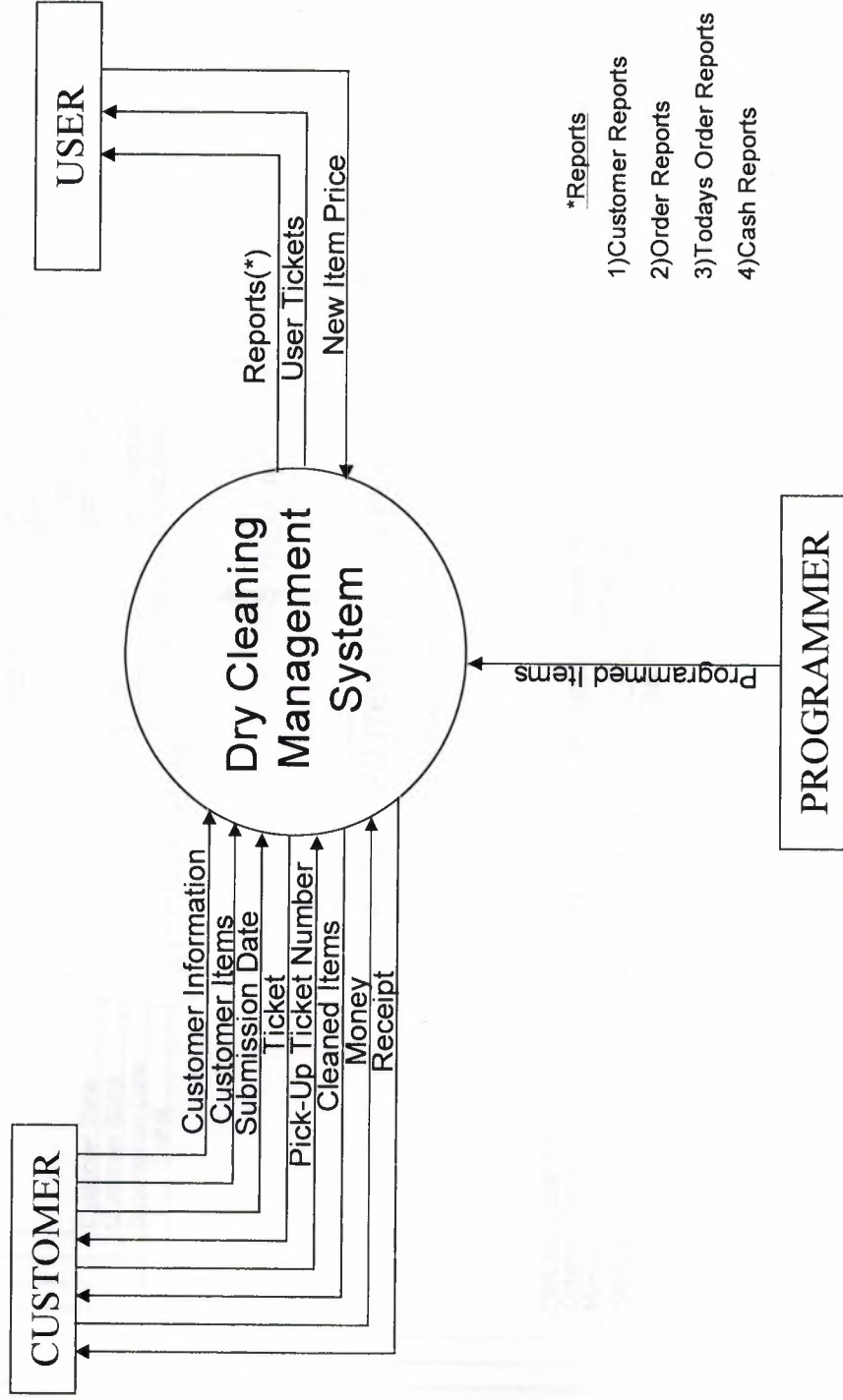
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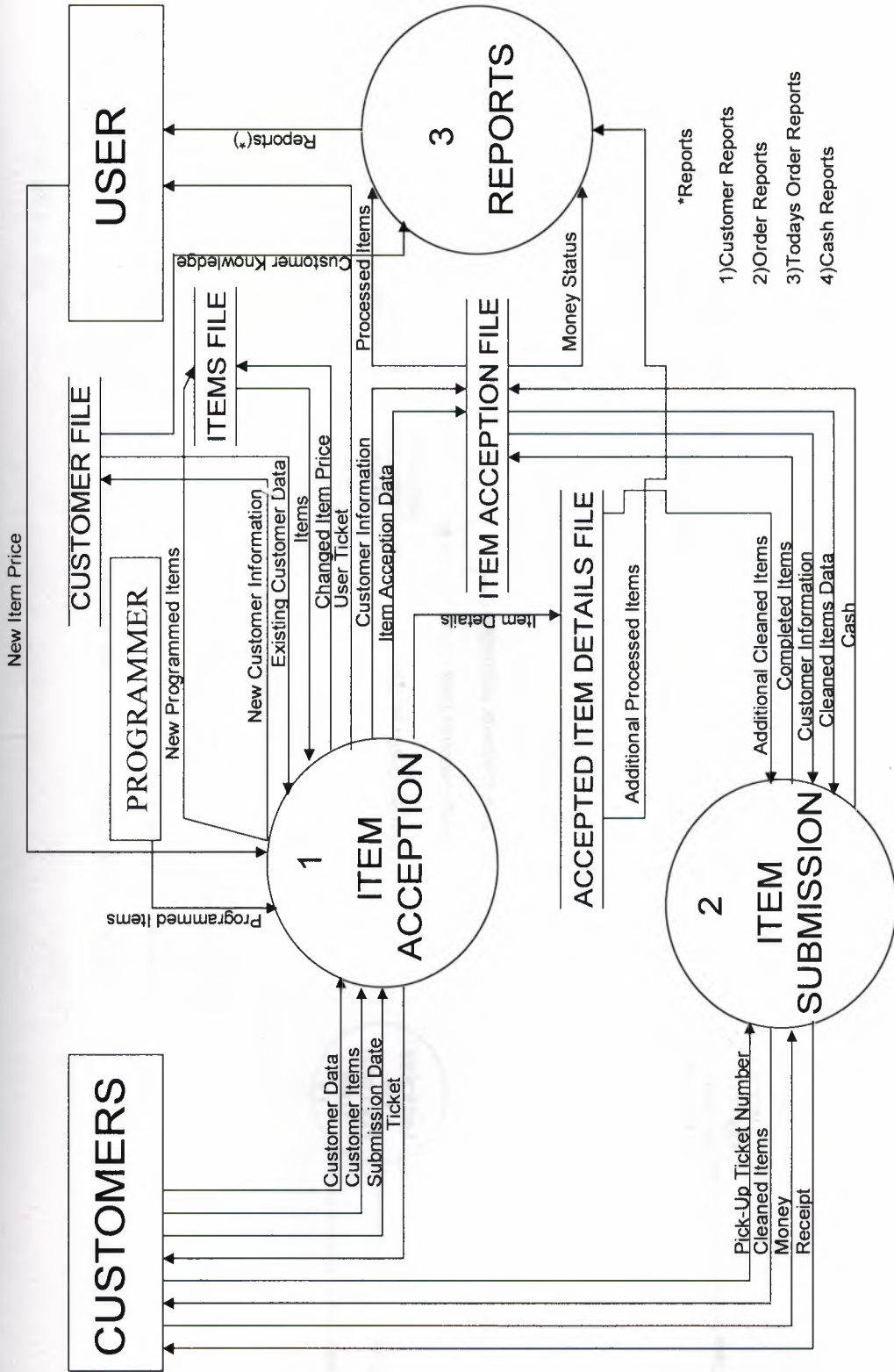
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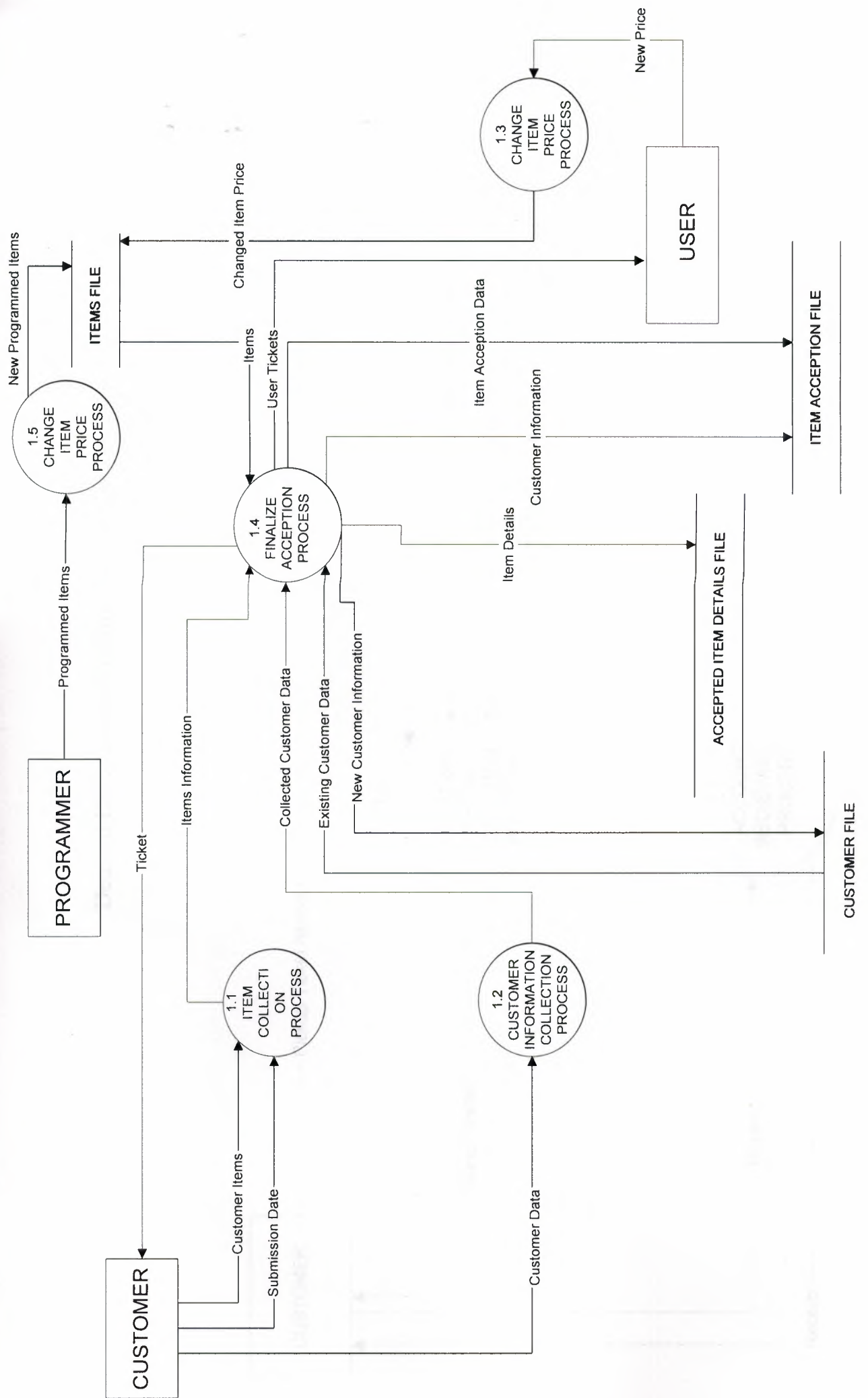
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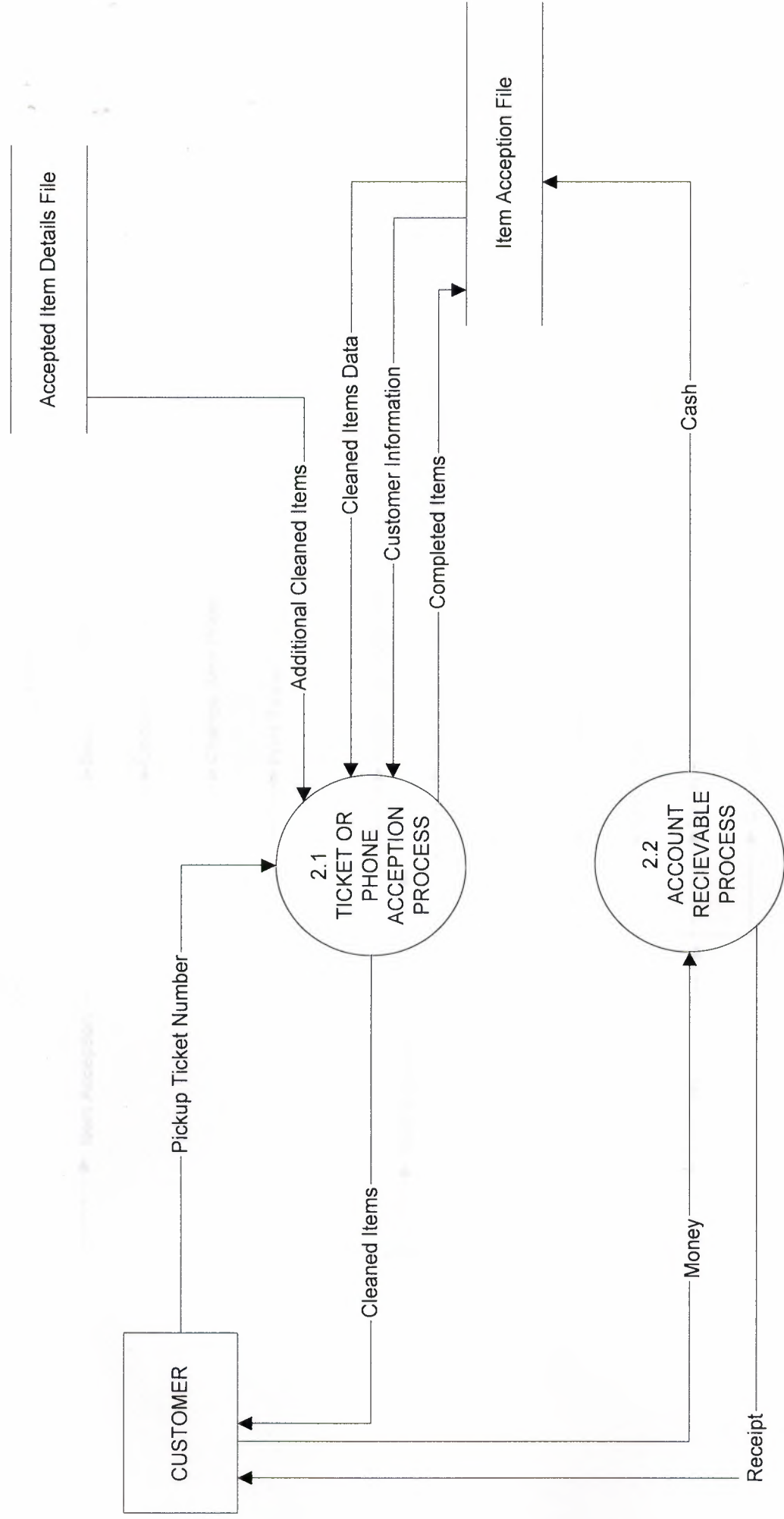
TOP LEVEL DFD FOR DRY CLEANING MANAGEMENT SYSTEM



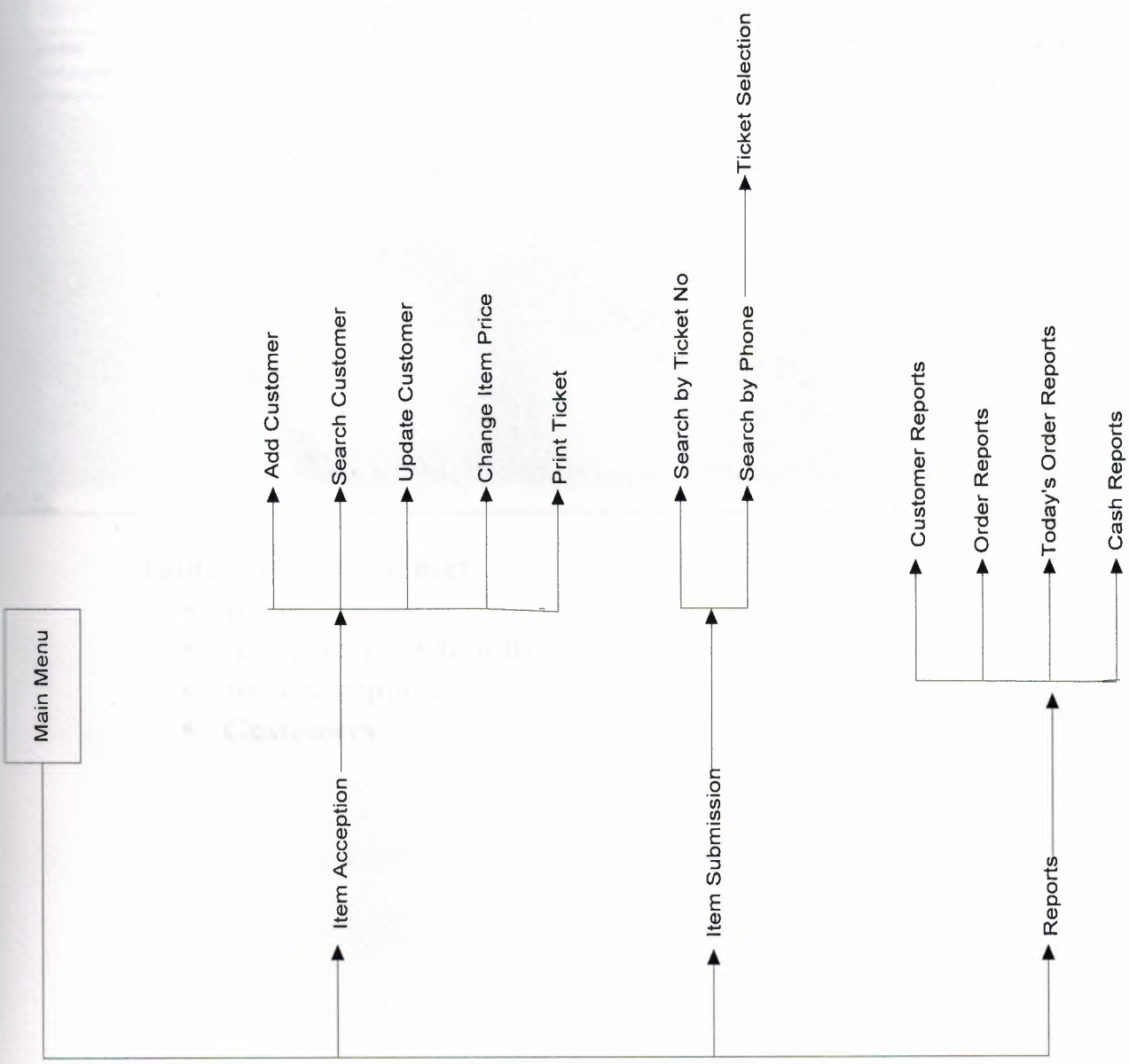




Detailed DFD for Item Submission Process (Process 2)

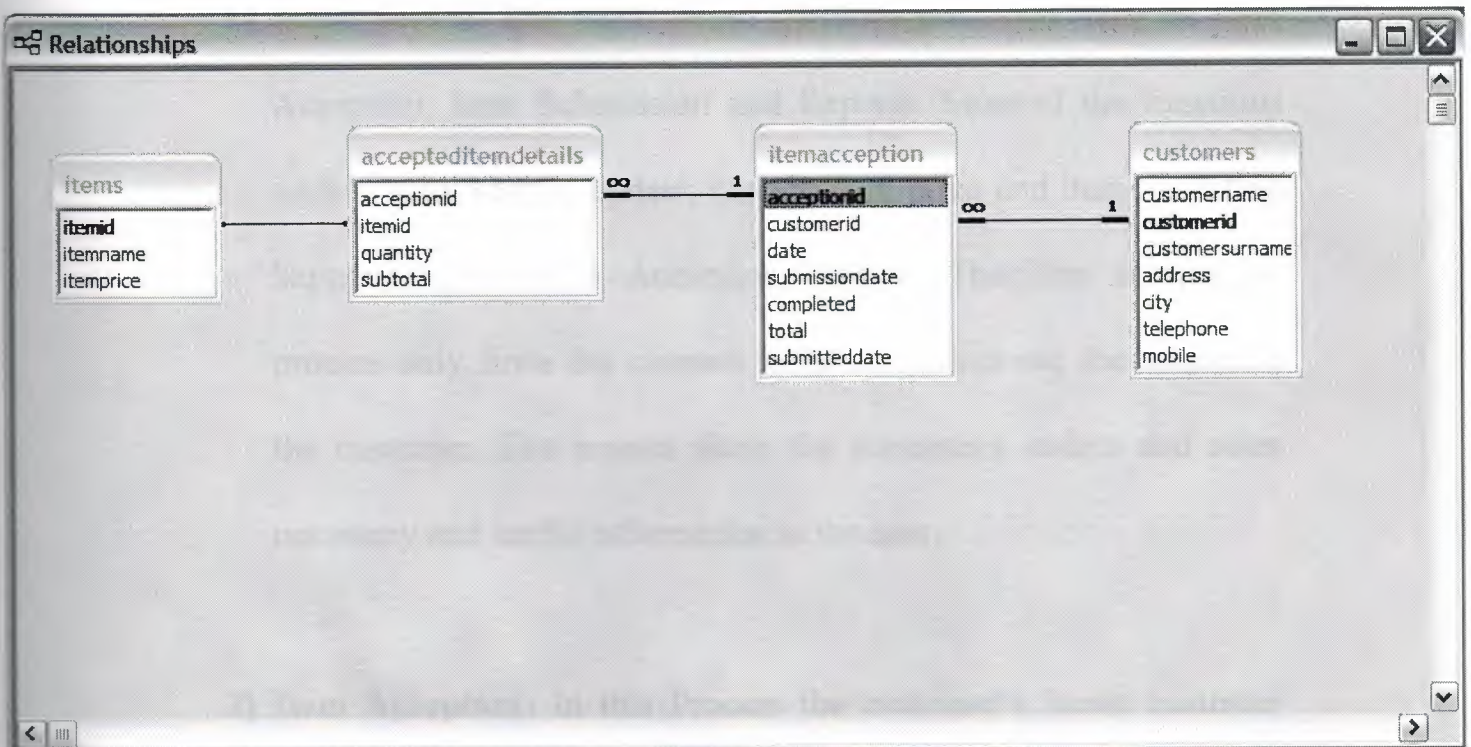


SYSTEM BLOCK DIAGRAM



## DATABASE DESIGN

- **Main Database**



### Tables in the Database:

- **Items**
- **Accepted Item Details**
- **Item Acception**
- **Customers**

## V. USER MANUAL

### USER GUIDELINES

- 1) **Main Menu:** The Main Menu includes processes such as Item Acceptation, Item Submission and Reports. Most of the functions such as add, search, update, change item price and item accepting happens in the Item Acceptation Process. The item submission process only finds the cleaned items and prints out the receipt to the customer. The reports show the customers, orders and other necessary and useful information to the user.
- 2) **Item Acceptation:** In this Process the customer's items, customer registration and update can be made along with searching the customer.
- 3) **Add Customer:** This process is used when a new customer comes to give us his or her items to be cleaned. But to accept items from customers we have to add them first. We click the add button and enter the data of the customers and then press SAVE.



**4) Customer Search:** This process is used when the existing customer comes to bring items to be cleaned. The user presses the search button and enters the customer's first name and chooses the correct customer from a list of the customer who has the same name. When the customer is chosen we can accept hi/her items.

**5) Update Customer:** This process can be used to update the existing customer's information stored on our computer. We enter the customers name and select it from a list of the similar names. Double click on it and then enter the new information and press save.

**6) Change Item Price:** This process enables the user to change the prices if the items according to their wants. Just click on the item you want to change the price of and enter the new price and press CHANGE.

**7) Item Submission:** In the item submission form there are several ways of finding your cleaned clothes. Either enters your Ticket Number or the customers Mobile or Telephone Number for a little bit of security. If the ticket number is entered the customer information will show up along with the items he or she brought on a specific date and the prices. Finally you can press on the PRINT icon and give the customer his or her receipt after getting the money for your service.

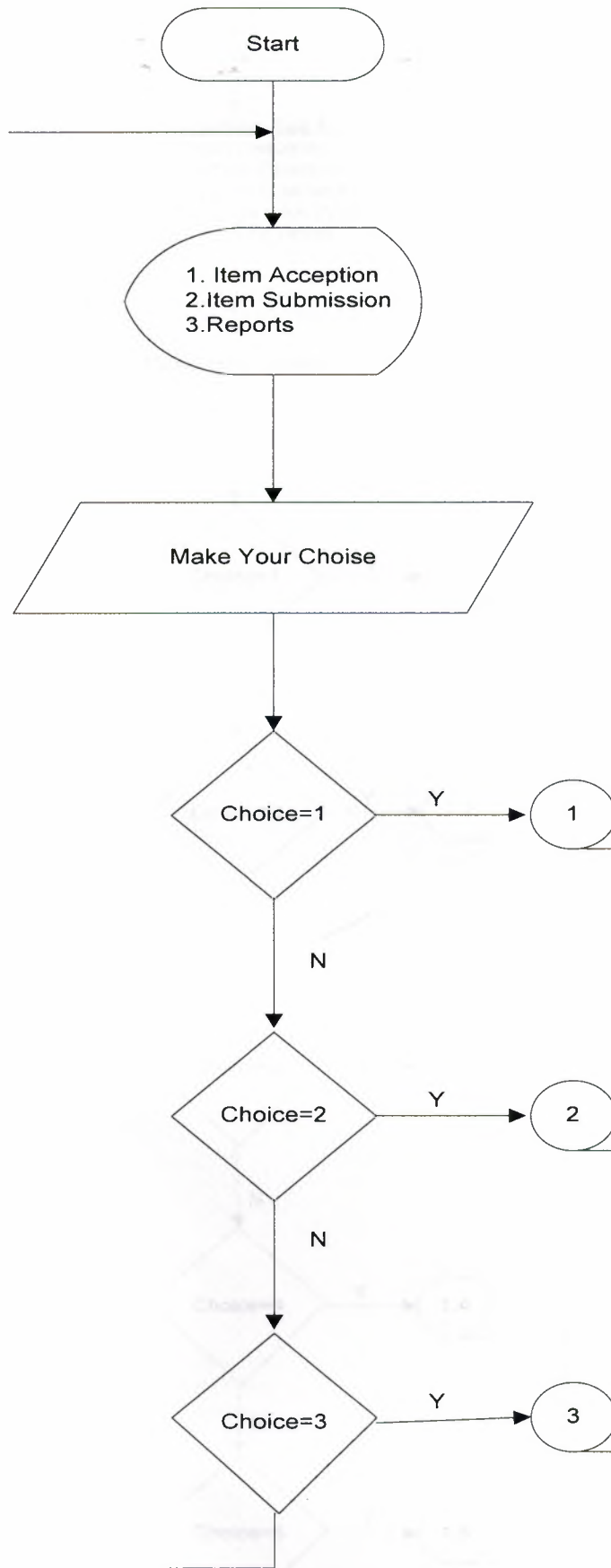
**8) Ticket Selection:** If the ticket number is searched by the mobile or telephone numbers it will go to a form which shows the ticket numbers belonging to the customer with the entered phone numbers. All you have to do is double click on the desired ticket number. And this will also take you to the form where you submit the items and print out the receipts.

**9) Receipt Printing:** After all the search is done and the right ticket number of the customer is found, there is only one step to do and that is to print the receipt and collect the money of the service.

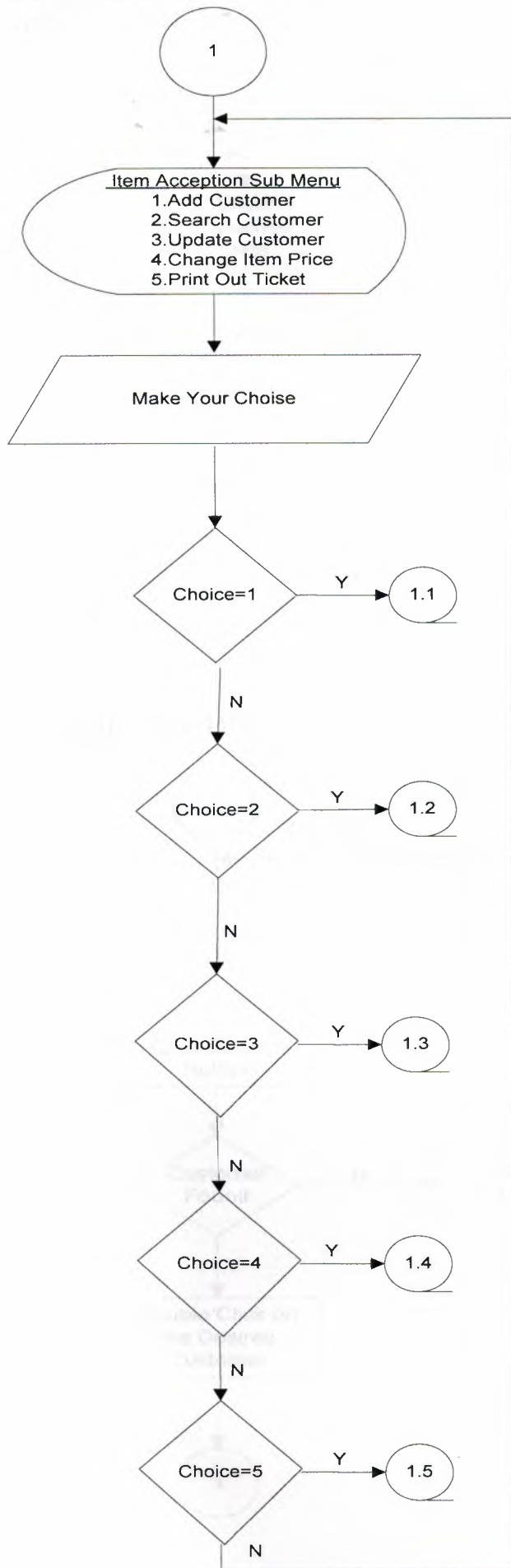
**10) Reports:** This process give the user useful and meaningful information about the customers, orders, orders on specific dates and cash. These reports can be printed if desired by the user. It can also be useful to the owner's accountant as well.

## USER FLOW CHARTS

### MAIN MENU

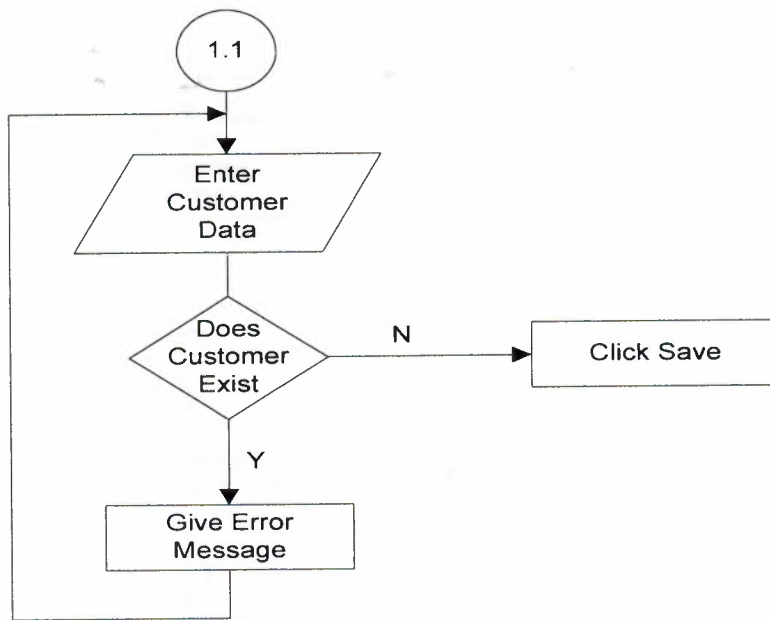


## ITEM ACCEPTION MENU

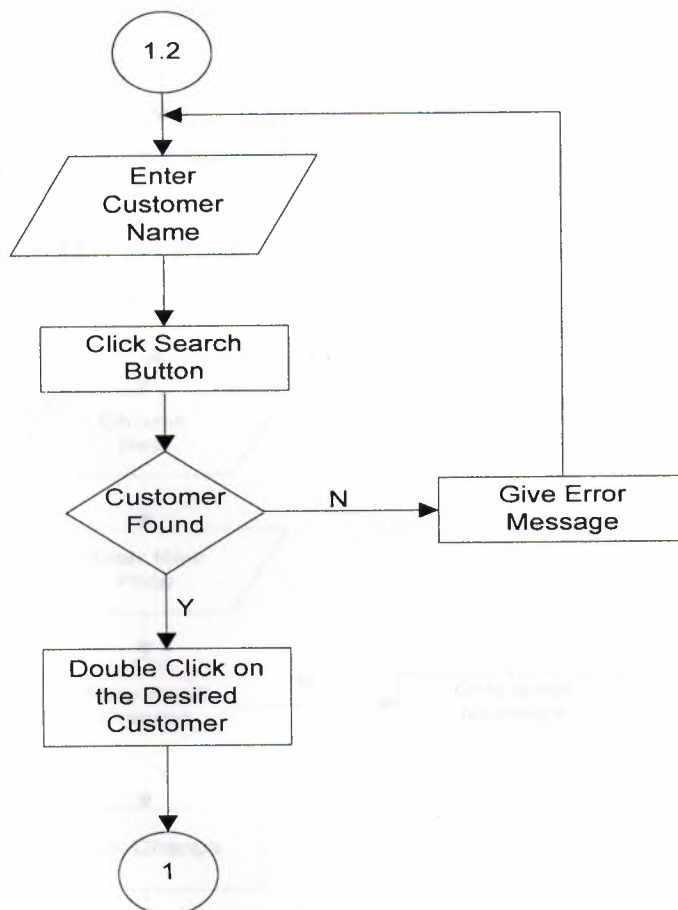




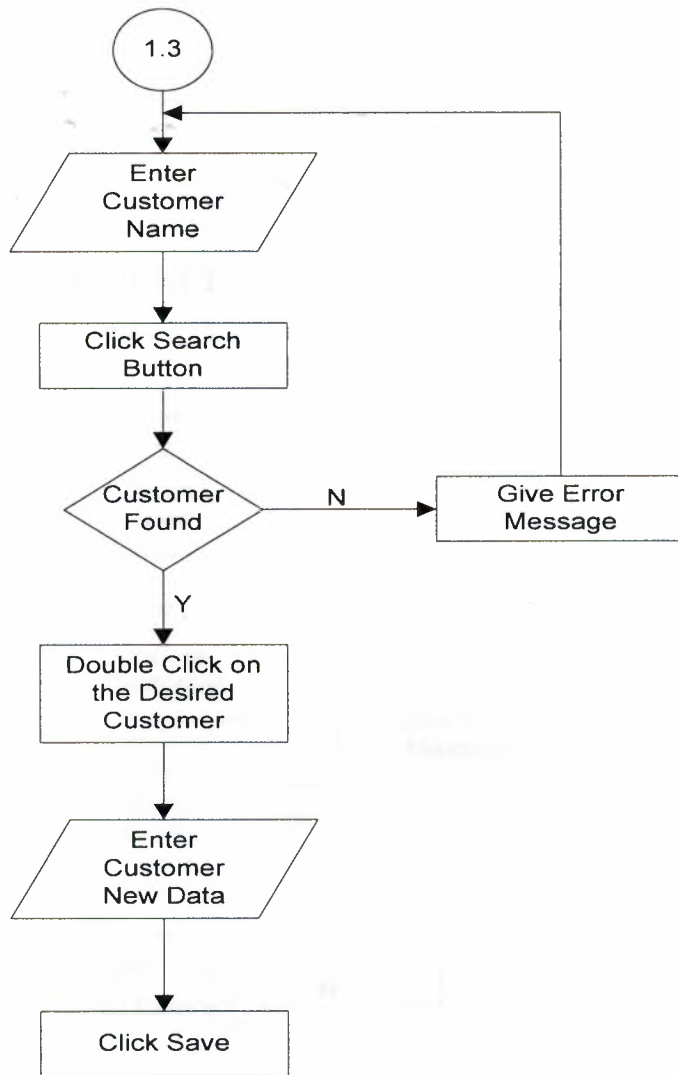
## ADD CUSTOMER



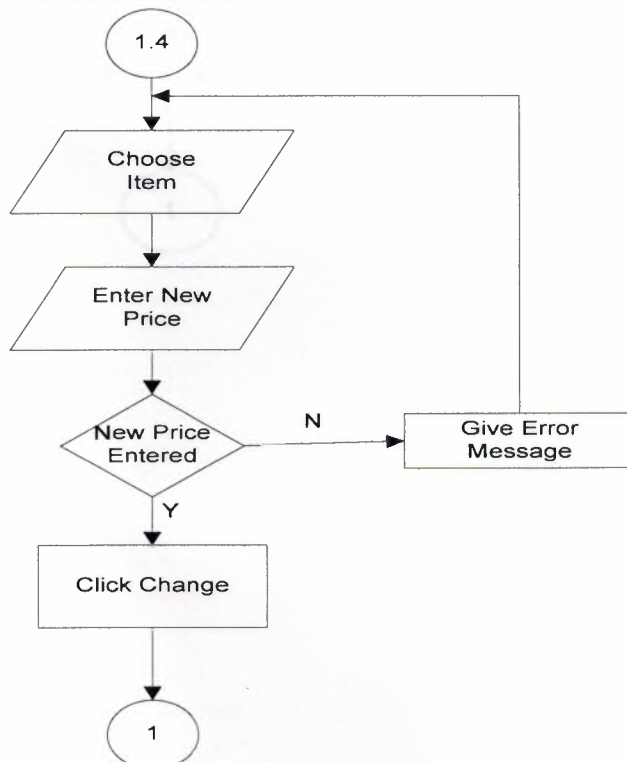
## SEARCH CUSTOMER



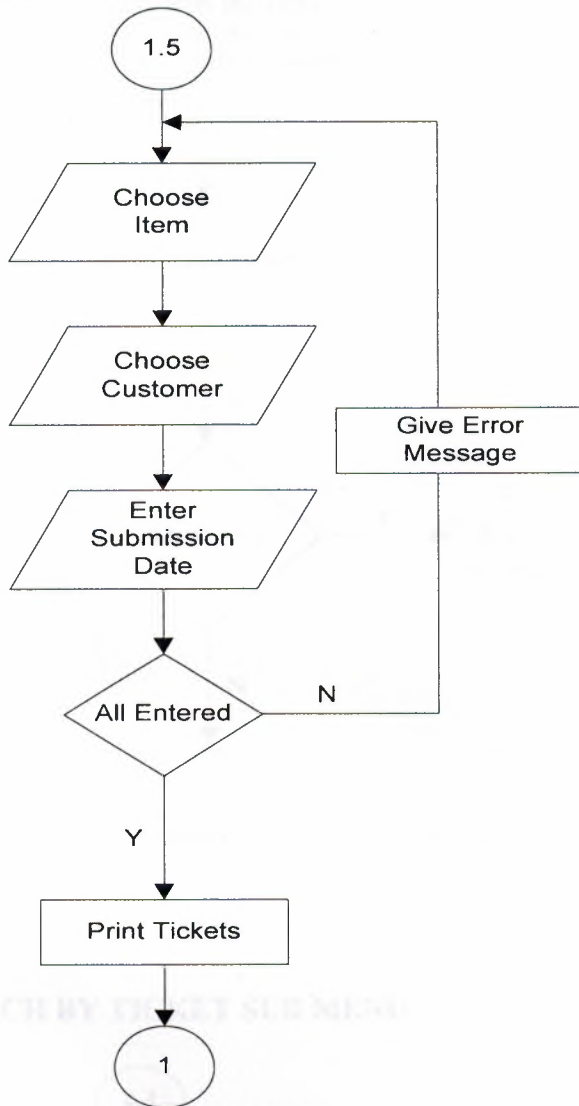
## UPDATE CUSTOMER



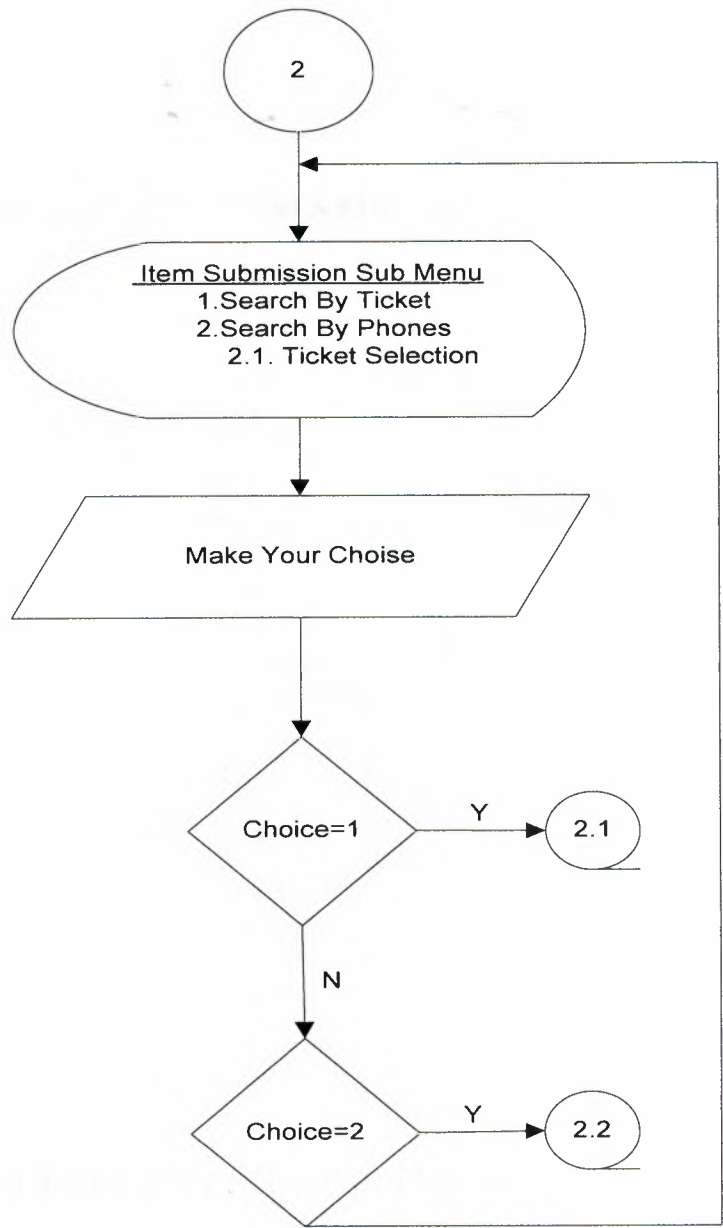
## CHANGE ITEM PRICE



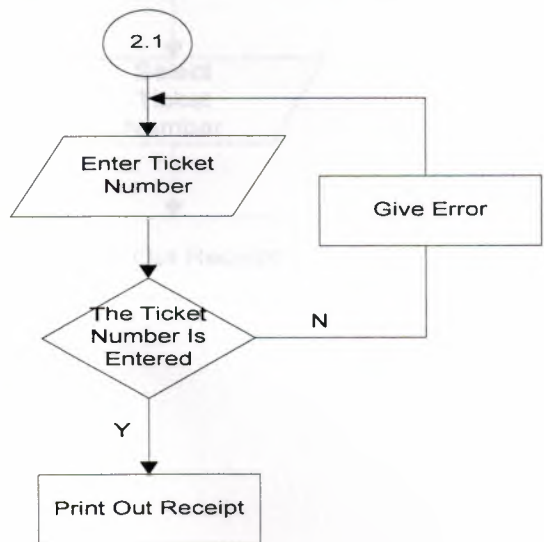
## PRINT OUT TICKET



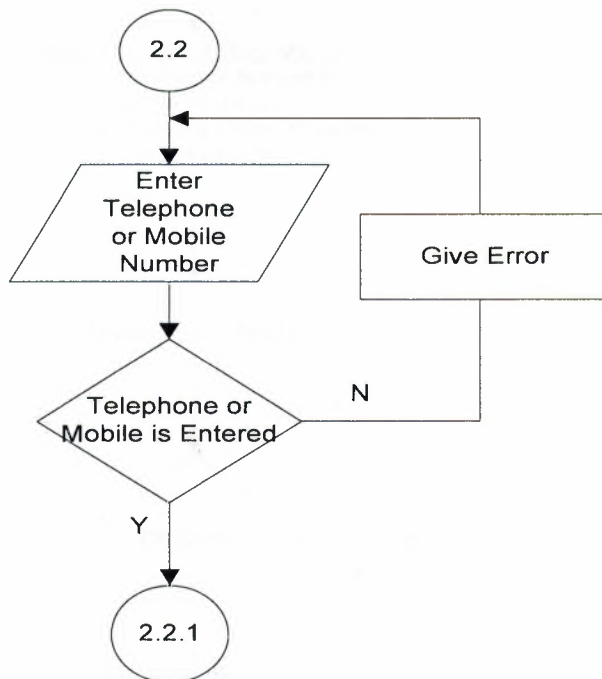
ITEM SUBMISSION MENU



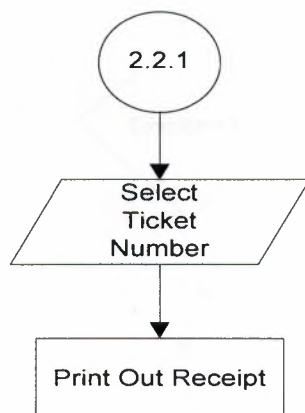
SEARCH BY TICKET SUB MENU



## SEARCH BY PHONES SUB MENU



## TICKET SELECTION SUB MENU







**NEAR EAST UNIVERSITY**  
**FACULTY OF ECONOMICS AND**  
**ADMINISTRATIVE SCIENCES**

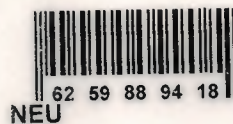
**DEPARTMENT OF COMPUTER**  
**INFORMATION SYSTEMS**

2006/2007 SPRING TERM  
CIS 400  
(GRADUATION PROJECT)

**DRY CLEANING MANAGEMENT SYSTEM**

SUBMITTED TO : DEPT OF. CIS

SUBMITTED BY : Ali DEDEOĞLU (20032759)



LEFKOŞA,  
2007



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## **I. ACKNOWLEDGEMENTS**

This project was prepared by me, Ali Dedeoglu, in association with MR Yalcin Akcali and MR Mustafa Menekay to be submitted to the Computer Information Systems department as a Graduation Project.

First of all I must thank my family for their strong support, especially my mother. Secondly I thank my dear friend Burak Us for helping me to find solutions for my problems in my project.

## II. ABSTRACT

The Dry Cleaning Management System is a program that enables the users to simply manage their clothes with out having any trouble and with out mixing them.

The program will accept items, mainly clothing such as trousers, ties, skirts and so on.

The reason why I chose this project topic is that my uncle owns a dry cleaning shop in Nicosia and is having problems with mixing up customers clothes.

One of the main importance's of the program is that it should be very user friendly. So that anyone who has knowledge and who hasn't got any knowledge about computers will be able to use it.

The program more or less works like so:

First the customer and his or her information must be recorded in to the program. After that the items of the customer should be collected, as with the submission date. After the items of the customer have been cleaned, the items will be returned to the customers by showing the ticket. After the customer has received his or her items they will receive a receipt.

### III. INTRODUCTION

The computer world is speedily changing and becoming more and more advanced every passing day. To be realistic the dry cleaning does not require computer systems that much but why in the old world when we can go along with the new world. It might be a little bit expensive and cost a little bit more money than using a pen and paper but it is more guaranteed that the risk of making mistakes will be minimized.

1. **CUSTOMER DATA:** This data is required, so that the user can add, update and manipulate customer processes.
2. **ITEM DATA:** This data is required, so that the user can simply enter the customer's items by using speed buttons in the program. The purpose of this data is to enable the user not to enter anything from the keyboard when inserting items of the customers into the program.
3. **ITEM ACCEPTION DATA:** This data is created by the customers data and item data in order to show the orders of the customers and which date the customer came and which date it wants its items to be ready. It also shows the total debt of the customer of that ticket number.
4. **ACCEPTED ITEM DETAILS DATA:** This data shows which items the customer brought to us to clean. Every ticket has different items in them. It has the item name, price and quantity of the ticket number in the item acception data.



## **IV.DESIGN OF THE SYSTEM**

### **EXPLANATION**

#### **THE PROCESSES FOR DRY CLEANING MANAGEMENT SYSTEM**

**1. ITEM ACCEPTION PROCESS:** This process will be used to receive the clothing items of the customers. When the items are taken in by the shop, the user will add the customer if it is a new customer, if not enter the existing customers info from the customers database. After that the customer should give the date which he or she wants the items to be ready. After all these processes the system will give the customer and the user a ticket relating with the items and its prices and also it will give the user an additional ticket to put on the clothes in order not to mix them up with other customers items.

**ITEM COLLECTION PROCESS:** This sub-process makes it possible to receive the customers items and the submission date which the customer wants the items to be ready.

**CUSTOMER INFORMATION COLLECTION PROCESS:** This sub-process makes it possible to accept the information such as the name, surname, phone and telephone number of the customer who brought in his or her items.

**AMOUNT RECIEVABLEPROCESS:** This process manages the cash coming in from the customers after submitting their

**CHANGE ITEM PRICE PROCESS:** This sub-process makes it enable to change the prices of the items stored in the database. The prices are entered by the user.

**FINALIZE ACCEPTION PROCESS:** This sub-process gets all the information from all the other sub processes like item information, collected customer data, existing customer data from other sub-processes in order to send the gathered information to the right tables in the database. It also takes the items from the items table according to the items of the customers. And at the end it prints out the tickets to the customer and user.

**2. ITEM SUBMISSION PROCESS:** After the items has been cleaned and the customer has come to get his or her items this process will be used. It accepts the ticket number or the phone number of the customer to find the orders and the items he or she brought before.

**2.1. TICKET OR PHONE ACCEPTION PROCESS:** This sub-process makes it possible to get the customers pick-up ticket number to get all the information according to the ticket number on the pick-up ticket. It gets the items, customer information from database tables according to the ticket number.

The minimum requirements of the system are as follows:

**2.2. ACCOUNT RECEIVABLE PROCESS:** This process manages the cash coming in from the customers after submitting their

items to them. After receiving the money from the customer the program prints out a receipt fro the customer. The collected cash amount is stored into the item acception table.



**3. REPORT PROCESS:** This process takes information from all of the tables in the database in order to give usable and informing information about the customers, items and orders of the customers. The users can after woods print these reports for future use.

**CUSTOMER REPORTS:** The customer reports gives the user useful information of the customers. It consists of information such as customer name, surname, address, phone numbers and so on. By this way the user can contact the customer if any complications occur.

**ORDER REPORTS:** This report gives the user information about how much items there are to be cleaned.

**TODAYS ORDER REPORTS:** This process reports all the items which have to be cleaned and ready for the day.

**CASH REPORTS:** This process gives information to the user about how much money is earned by which order and which customer. It can also be useful for the owners accountant.

**The minimum requirements of the system are as follows;**

Intel Pentium 3 CPU 2.00Ghz

256 MB Ram

30 GB HDD

15' Monitor

Windows XP Home Edition

**The recommended requirements of the system are as follows;**

Intel Pentium(R) 4 CPU 3.20Ghz

512 MB Ram

80 GB HDD

17' Monitor LCD

Windows XP Professional

I used the Borland Delphi 7 programming language to write this program and Microsoft Access database that has connection with Borland Delphi 7

I also used VCL Skin to make the view of the program more nice and smooth.

## **1) PROJECT IDENTIFICATION AND SELECTION**



## **THE AIM OF THE PROJECT**

The aim of my project is to perform all the dry cleaning processes made manually, to the computer system. And one of the main objective of my project is to make it highly user friendly.

## **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 2000 and upper will work the program properly. Microsoft Windows XP is recommended.

## **2) PROJECT INITIATION AND PLANNING**

## **TECHNICAL FEASIBILITY**

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

- Computer
- Printer

## **ECONOMICAL FEASIBILITY**

- The advantage of using my dry cleaning program as economical result is; it will be less cheap than mixing up other items of customers.
- It will be very easy to use, so the users can not need an education about computer knowledge.
- Another advantage is saving time. With saving time the user / employee can accept more items.

### **3) ANALYSIS**

#### **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.
- To use graphical user interfaces.

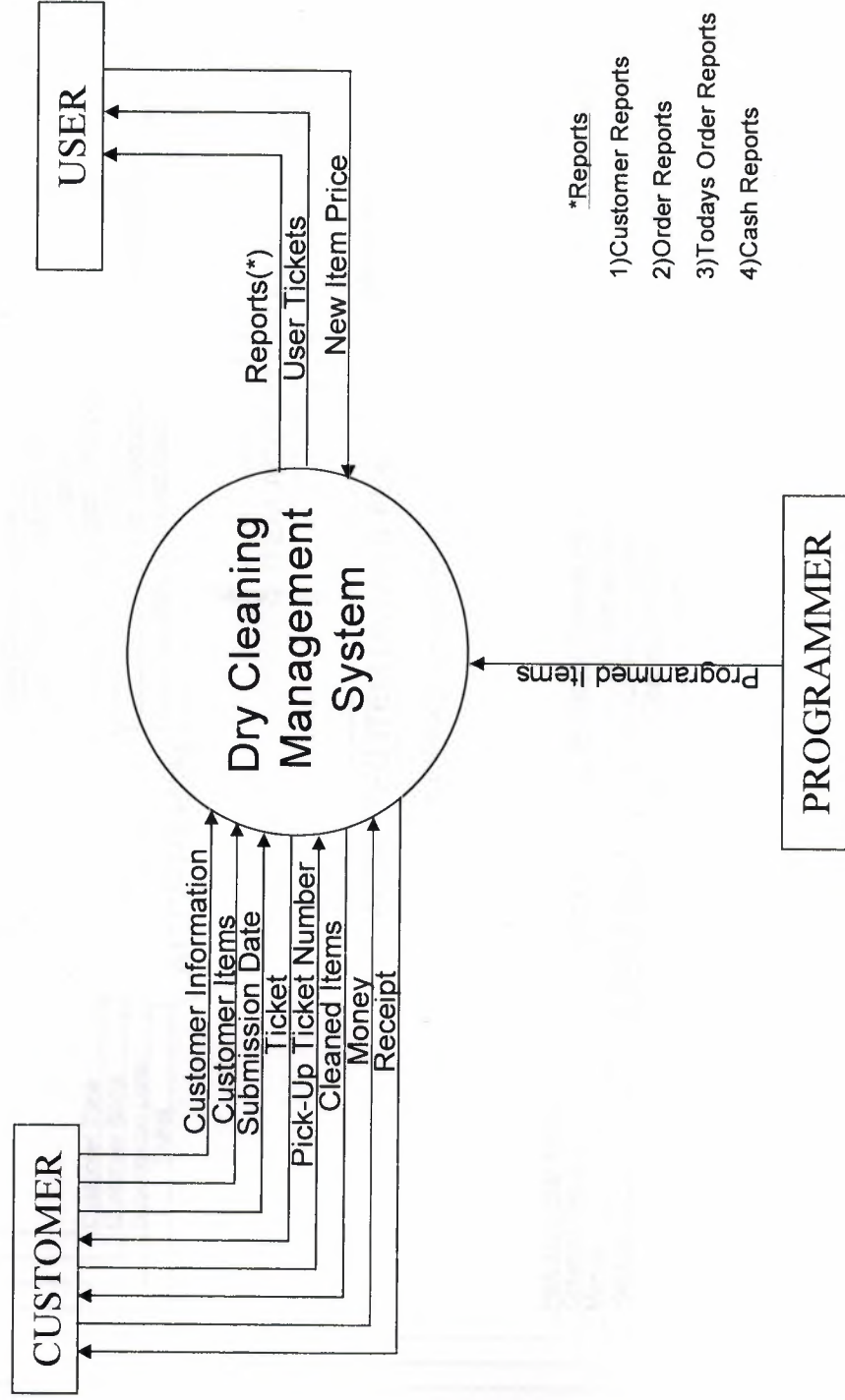
#### **THE EXISTING SYSTEM CAPABILITIES**

- There was no existing software.
- All the orders were kept by hand on paper.
- Sometimes the same ticket-no was given to different customers.

#### **THE NEW SYSTEM'S PROVIDENCES**

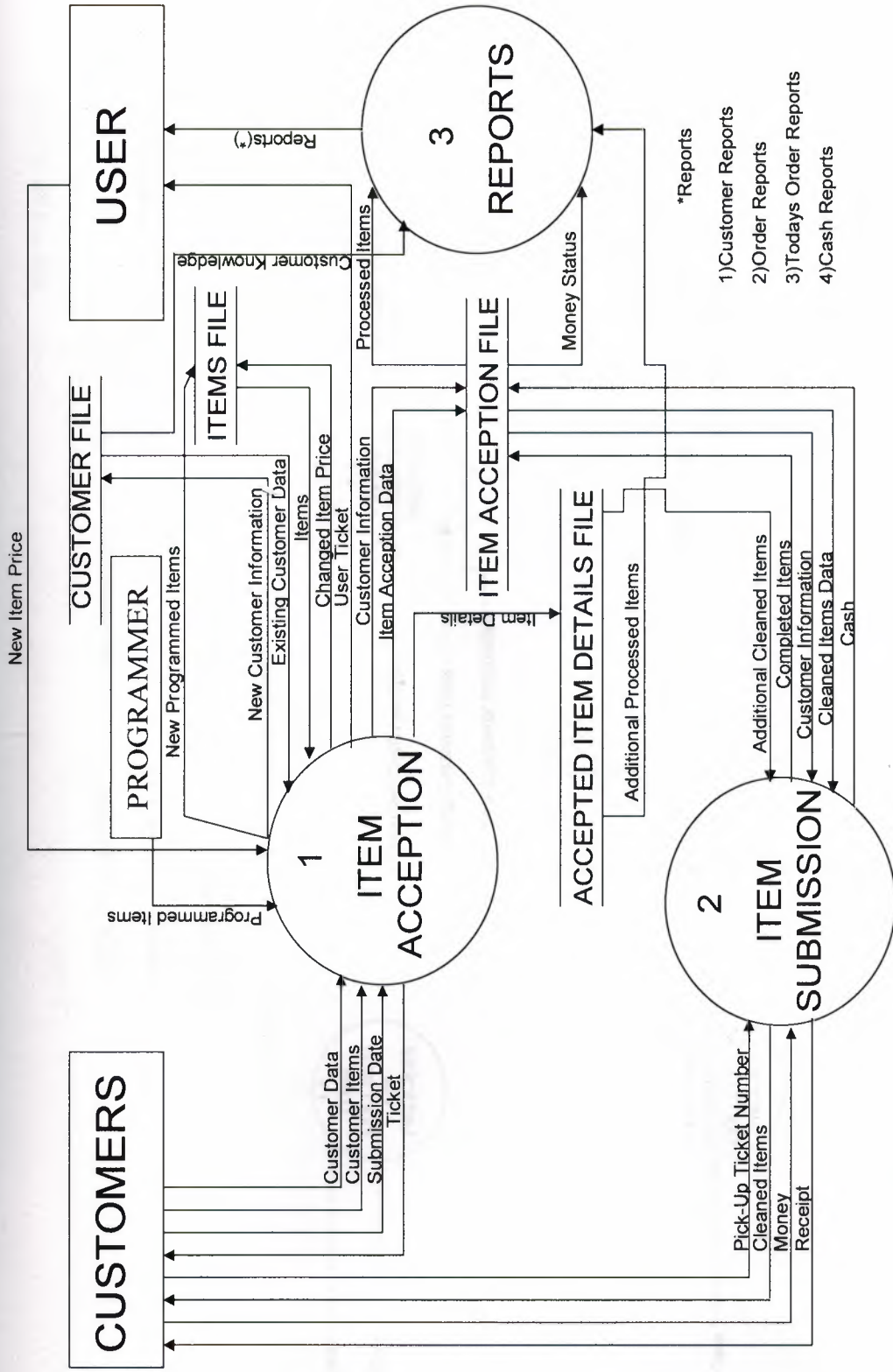
- The new system should be trustable.
- The new system records customers information.
- The new system gives every customer a different id number, so they will not be mix up.
- The new system will not give the same ticket number to more than one customer.

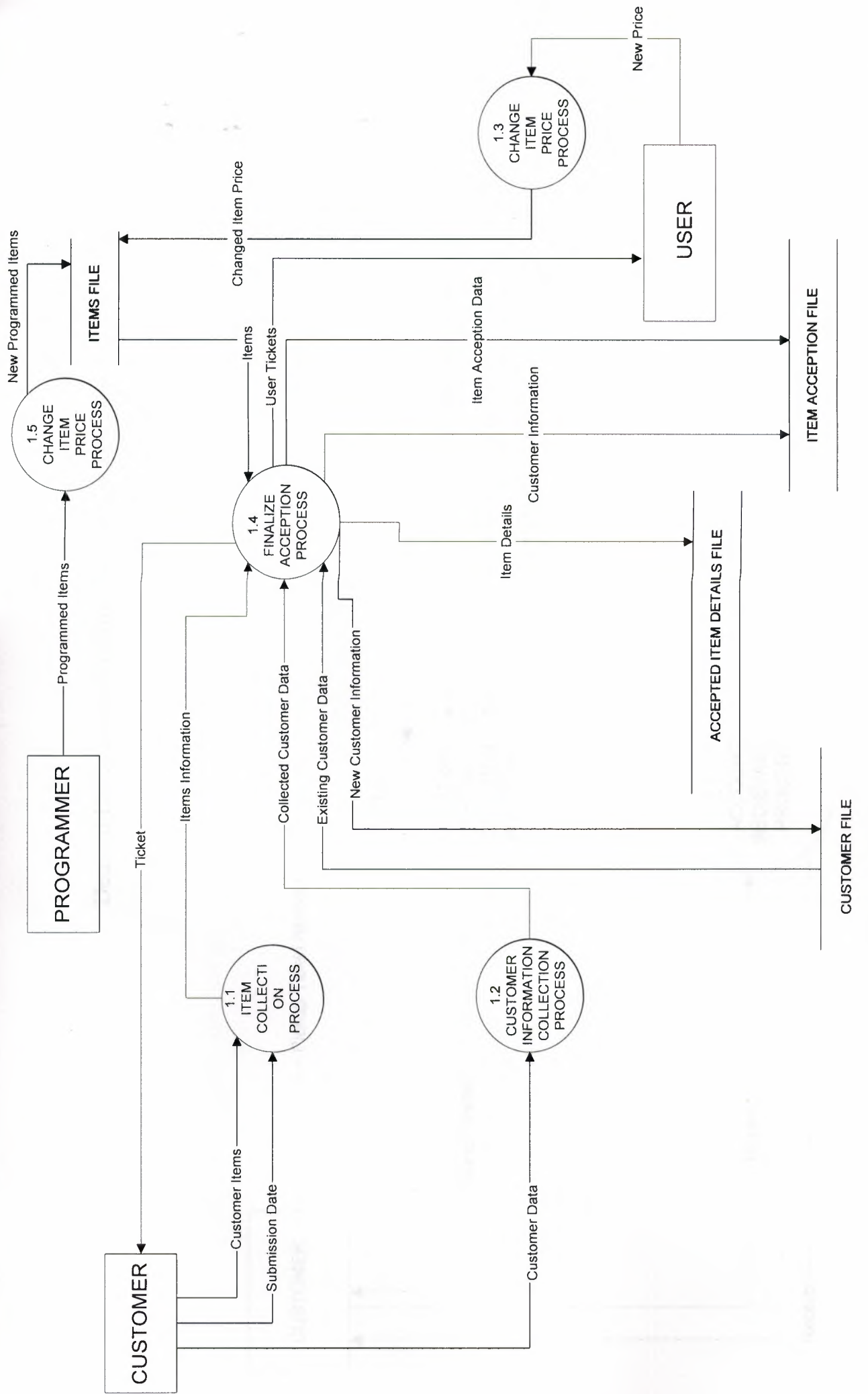
# CONTEXT DFD FOR DRY CLEANING MANAGEMENT SYSTEM



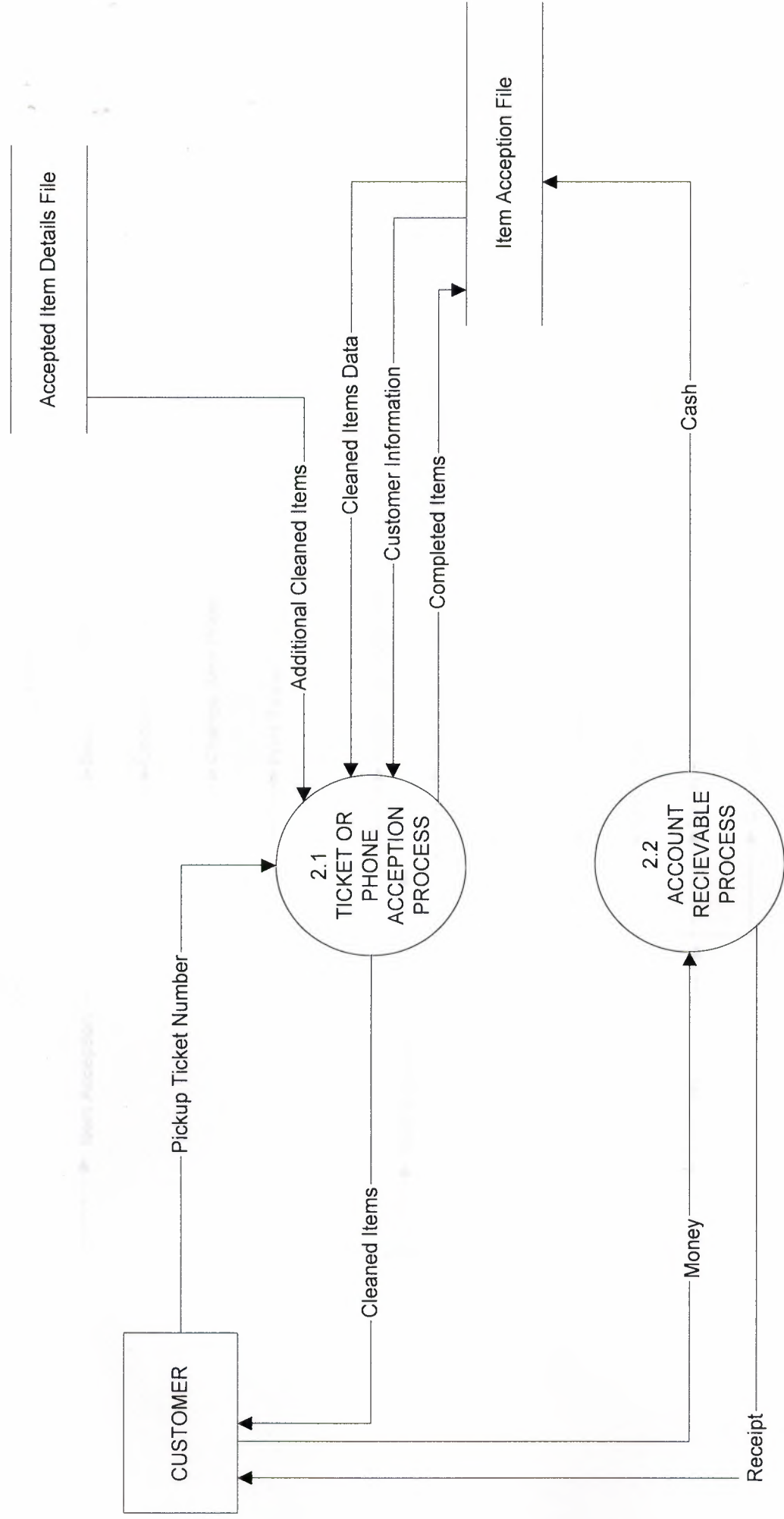


TOP LEVEL DFD FOR DRY CLEANING MANAGEMENT SYSTEM

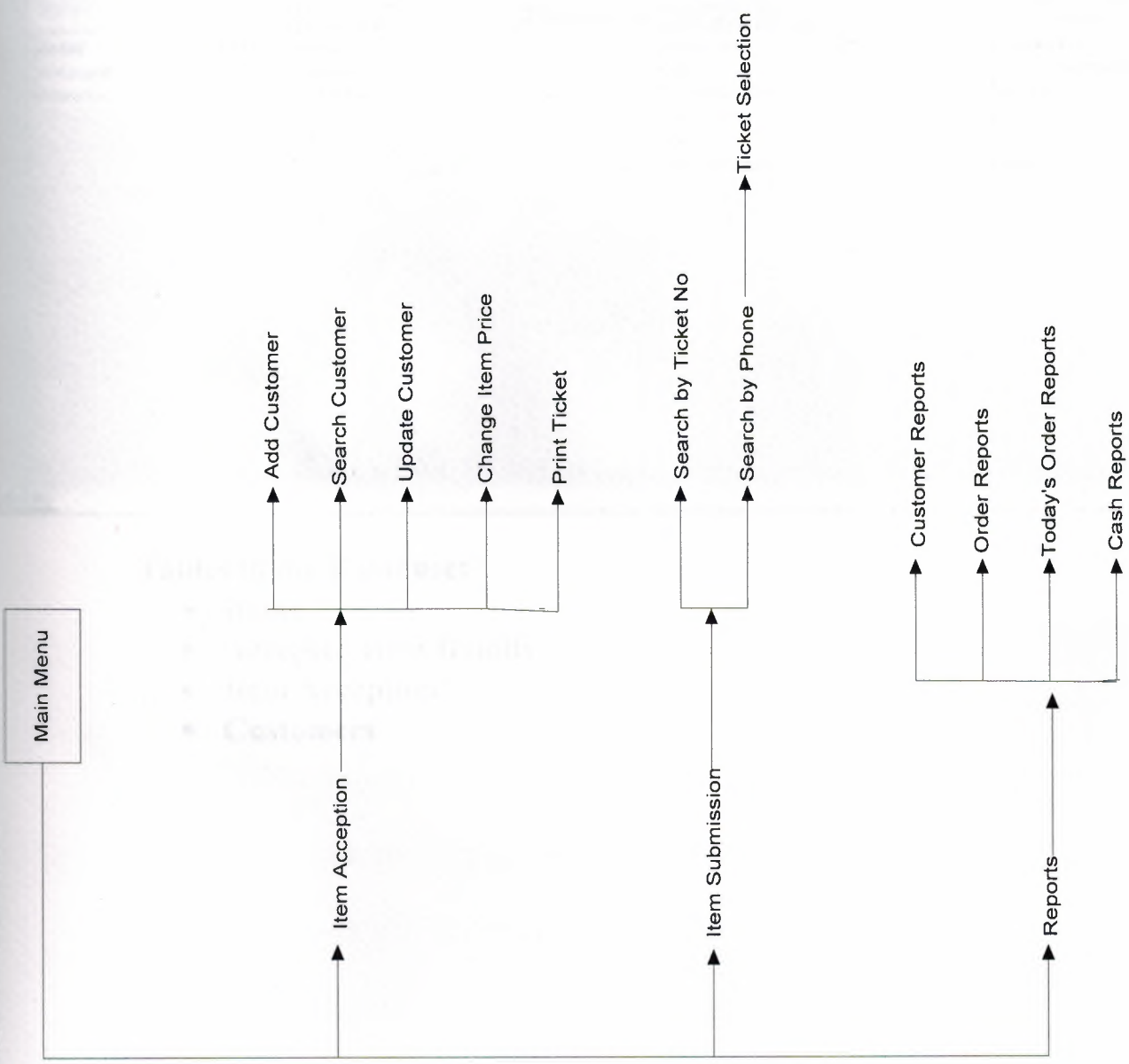




Detailed DFD for Item Submission Process (Process 2)

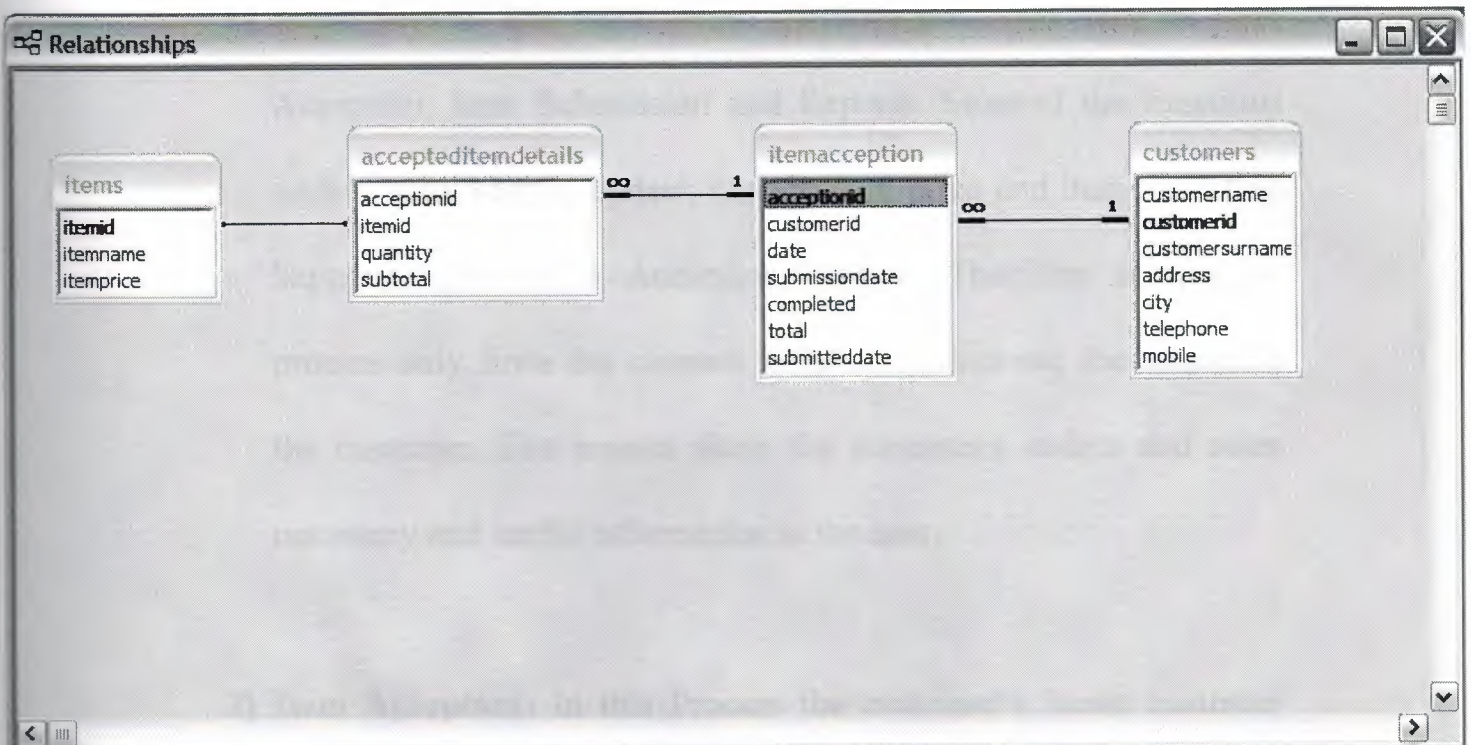


SYSTEM BLOCK DIAGRAM



## DATABASE DESIGN

- **Main Database**



### Tables in the Database:

- **Items**
- **Accepted Item Details**
- **Item Acception**
- **Customers**



## V. USER MANUAL

### USER GUIDELINES

- 1) **Main Menu:** The Main Menu includes processes such as Item Acceptation, Item Submission and Reports. Most of the functions such as add, search, update, change item price and item accepting happens in the Item Acceptation Process. The item submission process only finds the cleaned items and prints out the receipt to the customer. The reports show the customers, orders and other necessary and useful information to the user.
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**4) Customer Search:** This process is used when the existing customer comes to bring items to be cleaned. The user presses the search button and enters the customer's first name and chooses the correct customer from a list of the customer who has the same name. When the customer is chosen we can accept hi/her items.

**5) Update Customer:** This process can be used to update the existing customer's information stored on our computer. We enter the customers name and select it from a list of the similar names. Double click on it and then enter the new information and press save.

**6) Change Item Price:** This process enables the user to change the prices if the items according to their wants. Just click on the item you want to change the price of and enter the new price and press CHANGE.

**7) Item Submission:** In the item submission form there are several ways of finding your cleaned clothes. Either enters your Ticket Number or the customers Mobile or Telephone Number for a little bit of security. If the ticket number is entered the customer information will show up along with the items he or she brought on a specific date and the prices. Finally you can press on the PRINT icon and give the customer his or her receipt after getting the money for your service.

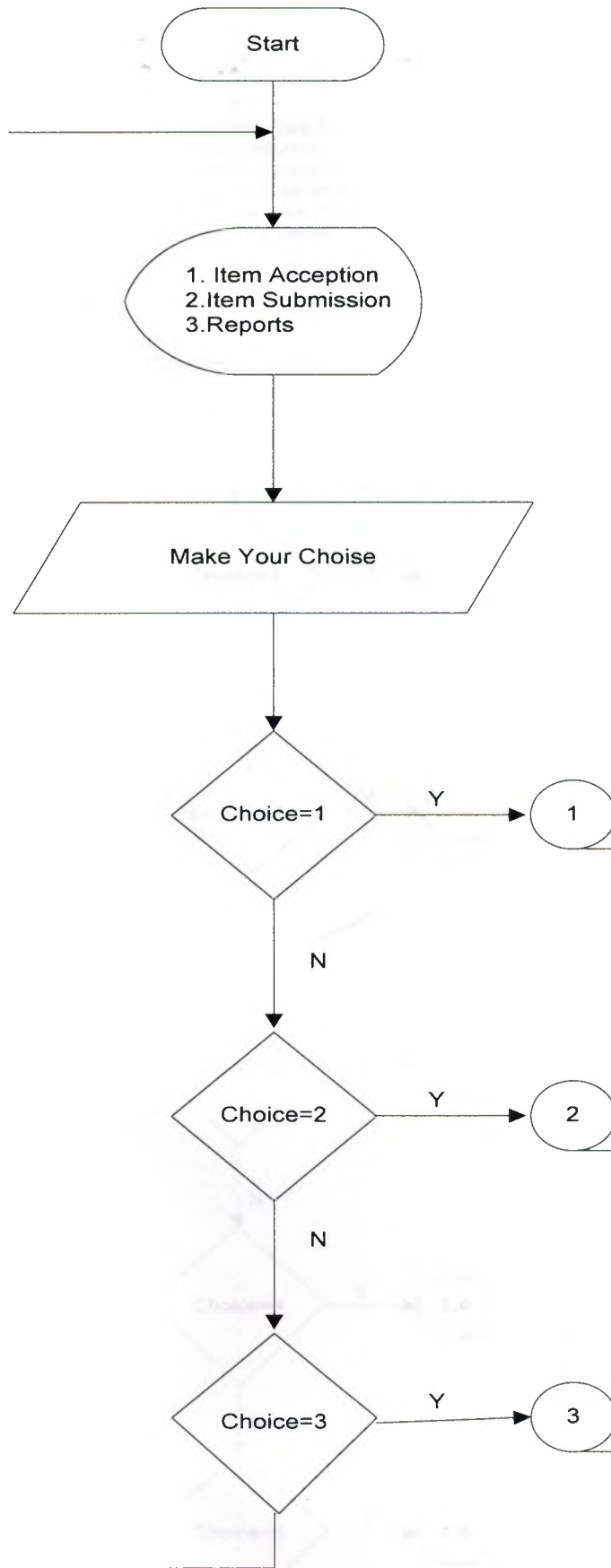
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**9) Receipt Printing:** After all the search is done and the right ticket number of the customer is found, there is only one step to do and that is to print the receipt and collect the money of the service.

**10) Reports:** This process give the user useful and meaningful information about the customers, orders, orders on specific dates and cash. These reports can be printed if desired by the user. It can also be useful to the owner's accountant as well.

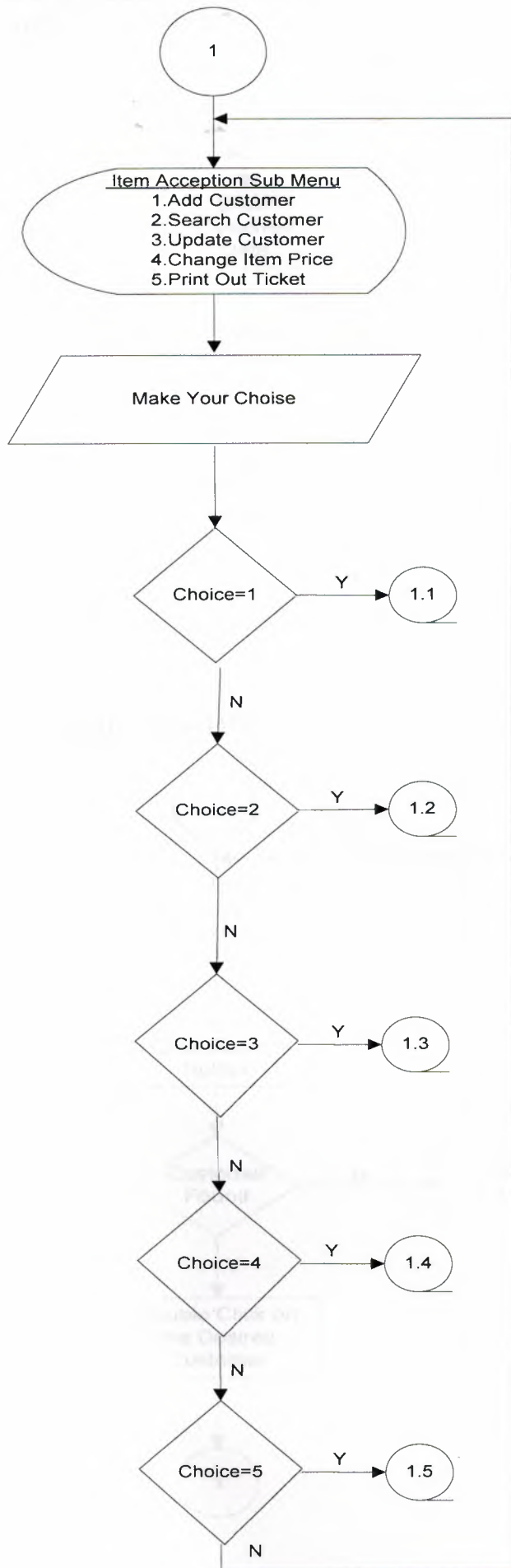
## USER FLOW CHARTS

### MAIN MENU

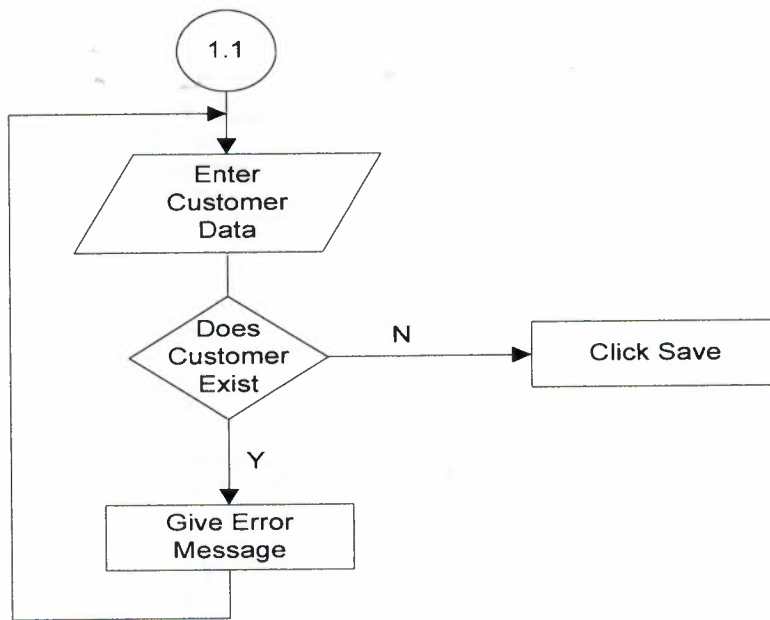




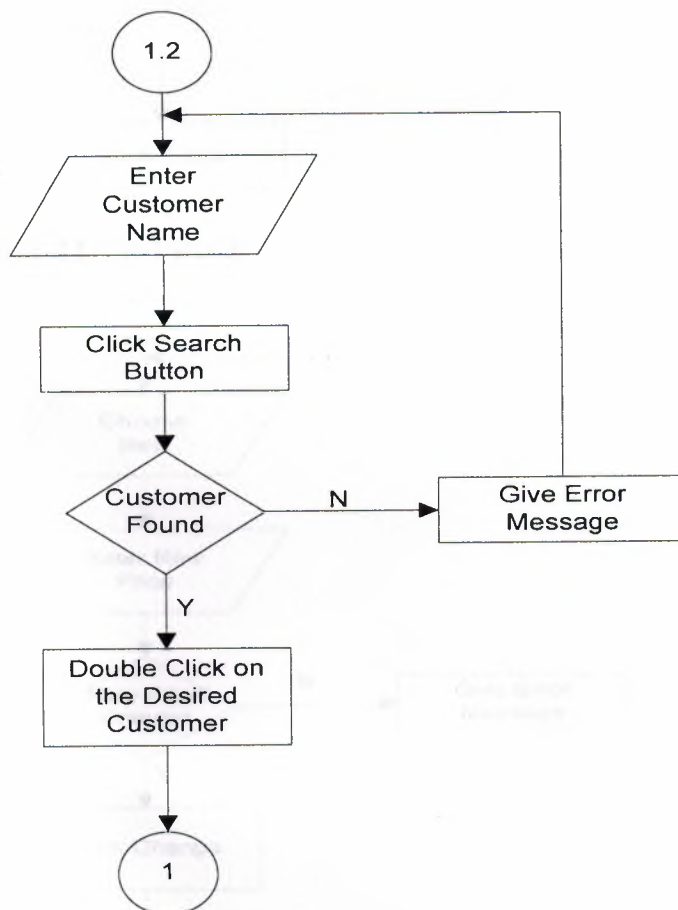
## ITEM ACCEPTION MENU



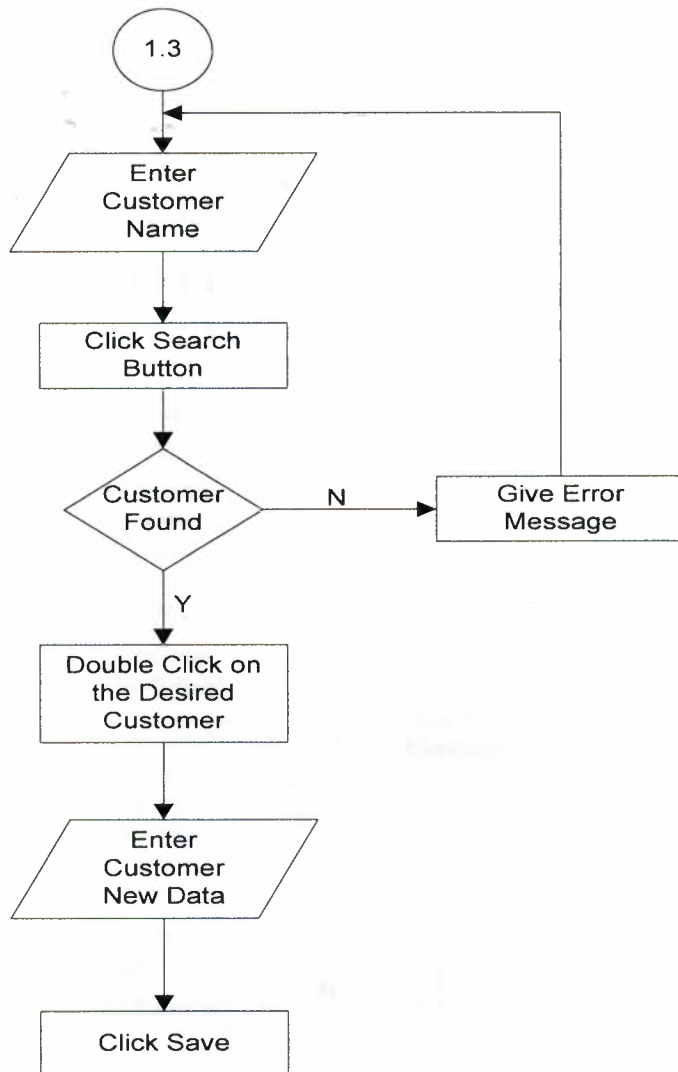
## ADD CUSTOMER



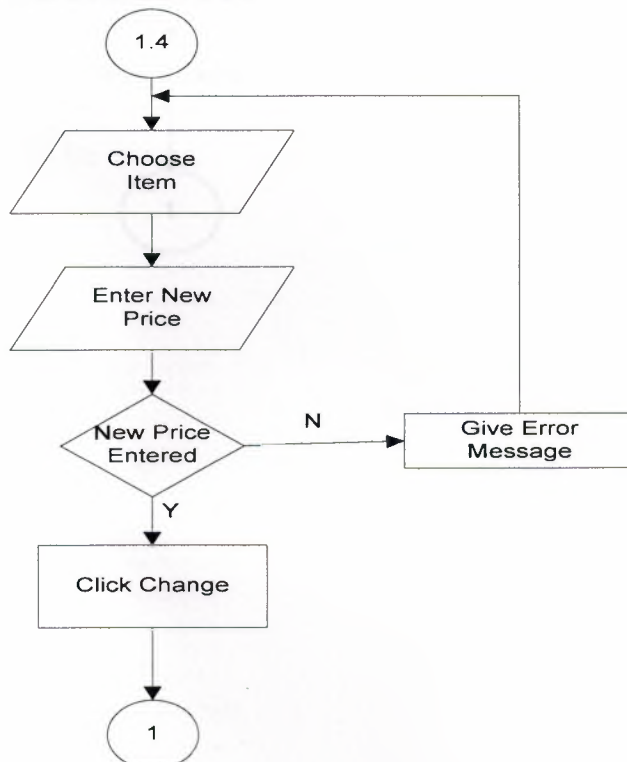
## SEARCH CUSTOMER



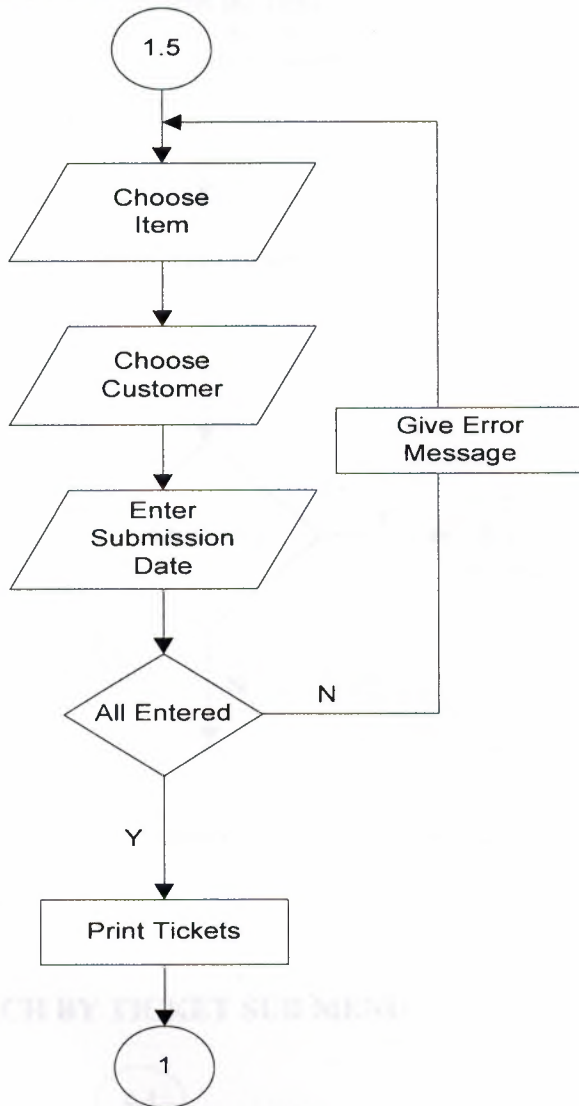
## UPDATE CUSTOMER



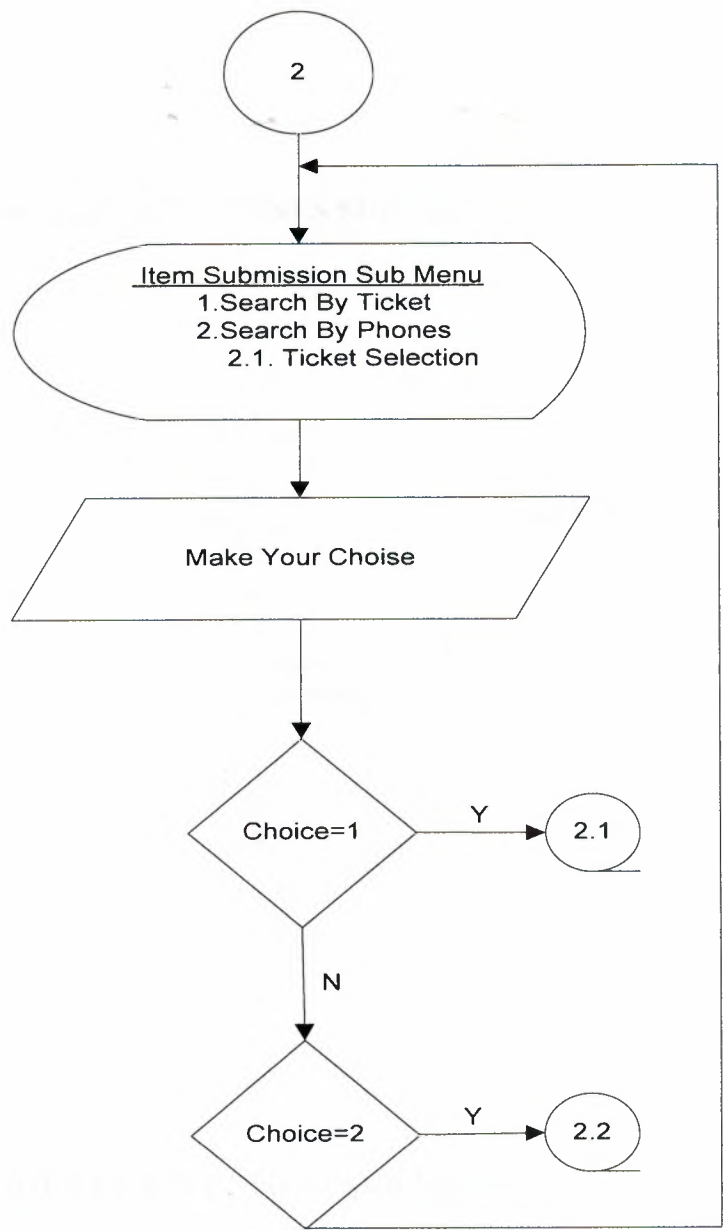
## CHANGE ITEM PRICE



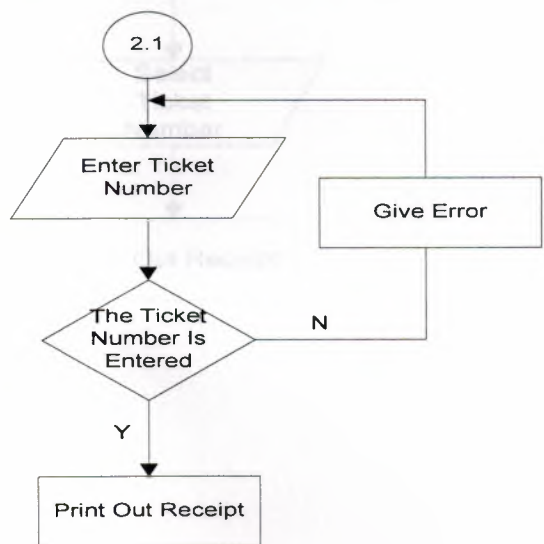
## PRINT OUT TICKET



ITEM SUBMISSION MENU

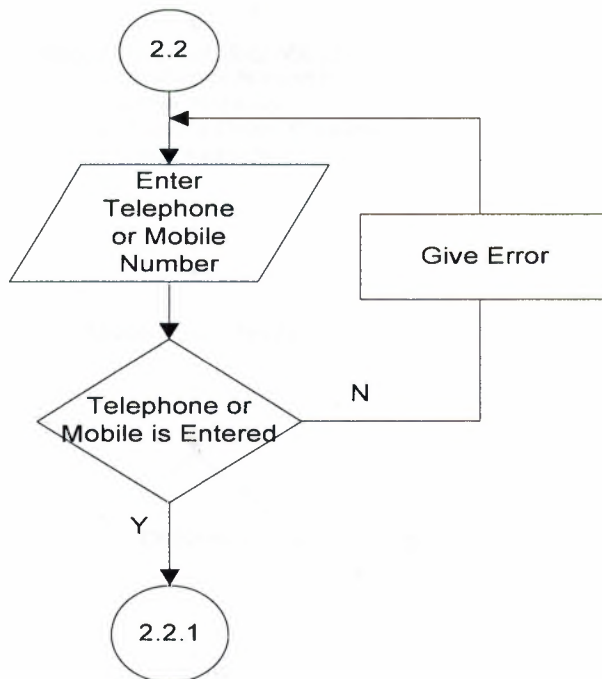


SEARCH BY TICKET SUB MENU

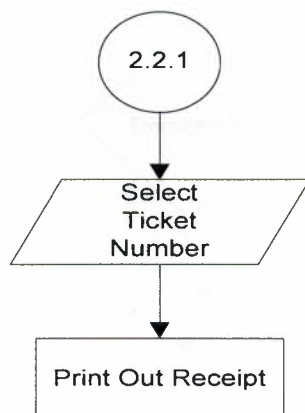




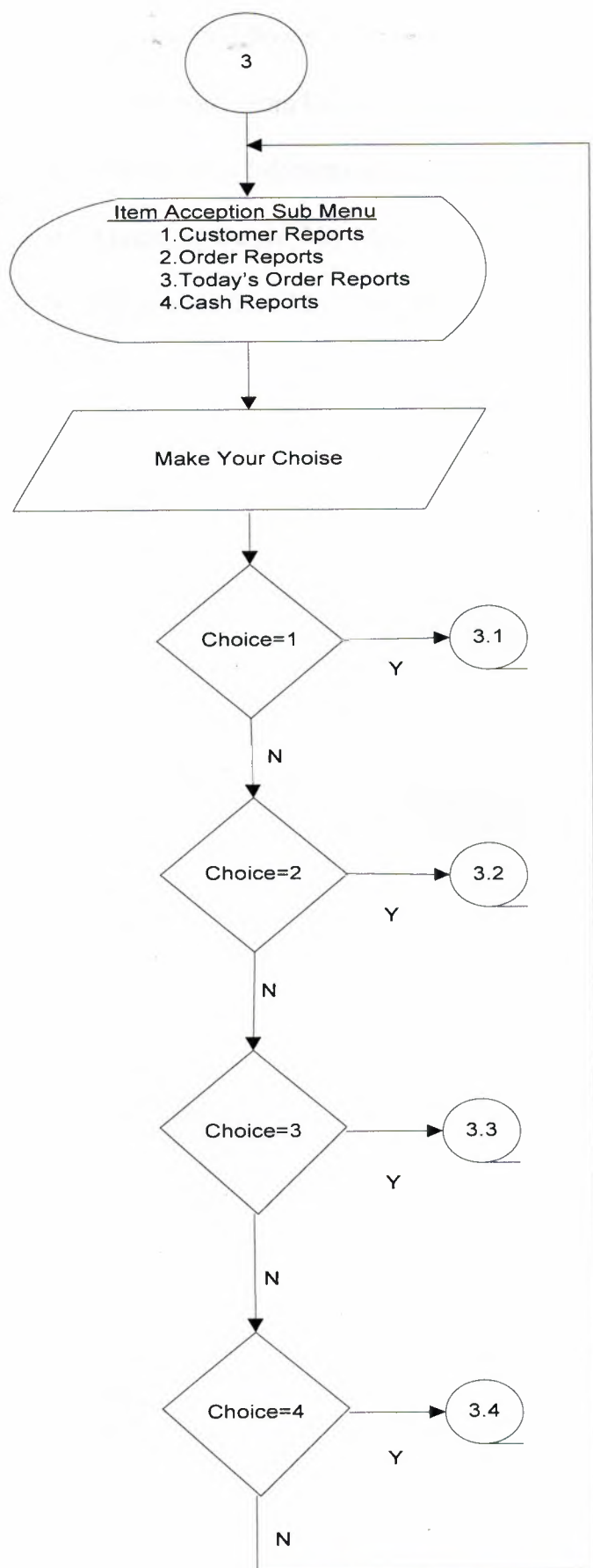
## SEARCH BY PHONES SUB MENU



## TICKET SELECTION SUB MENU



## REPORTS MENU



## **VI. REFERENCES**

- Access 2003 Power Programming with VBA by Allen G. Taylor
- Delphi notes from CIS 232. by Nadire Çavus
- Management Information Systems by Yalçın Akcalı
- Mastering Delphi 7 by Macro Cotnu
- Sql lessons from Mr Tansel Devin

# APPENDIX I

## SCREEN OUTPUTS

### Main Menu





## Item Acception

7. Item Acception

Name:  Date:

Surname:

Mobile:

Code	Explanation	Quantity	Price
7002	Womens Suit	<input type="text" value="1"/>	<input type="text" value="20"/> YTL
7007	Tie	<input type="text" value="1"/>	<input type="text" value="2"/> YTL
<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/> YTL
<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/> YTL
<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/> YTL
<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/> YTL
<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/> YTL
<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/> YTL
<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/> YTL

Total Number Of Items:

Total Price:  YTL

Submission Date:

Buttons: Add, Search, Update

Icons:

## Add Customer

7. Add Customers

Customer Information

Name:

Surname:

City:

Address:

Telephone:

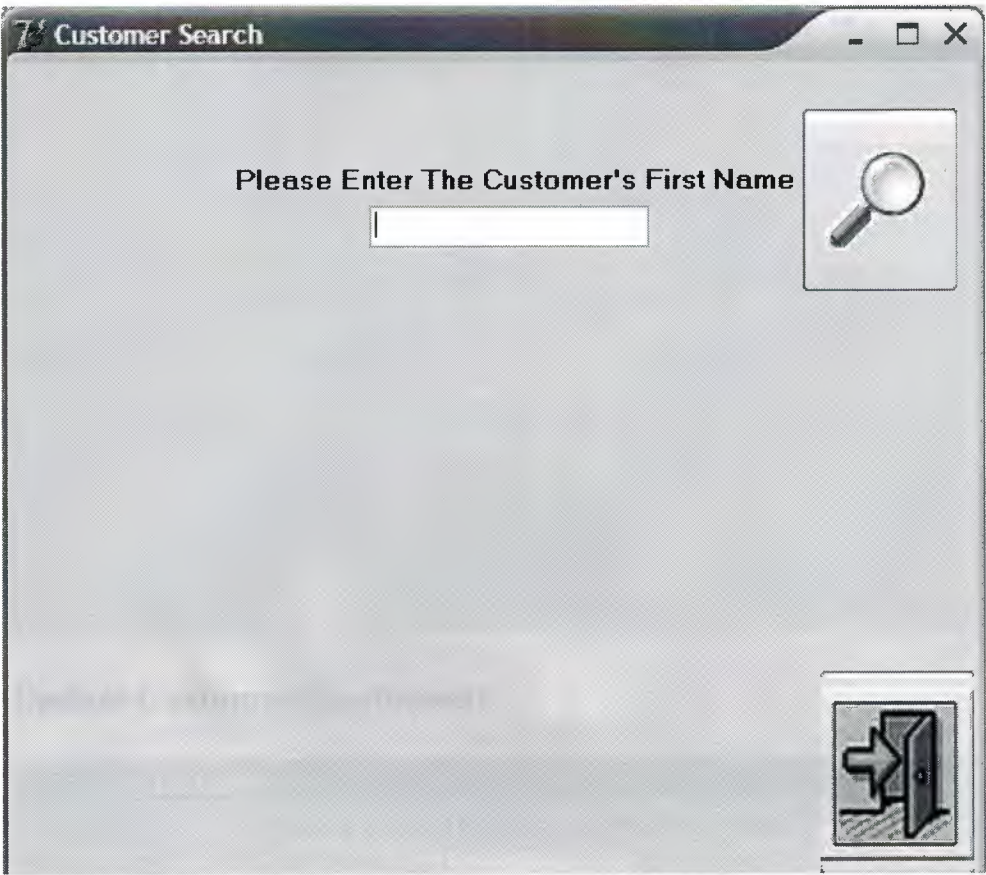
Mobile:

Clear

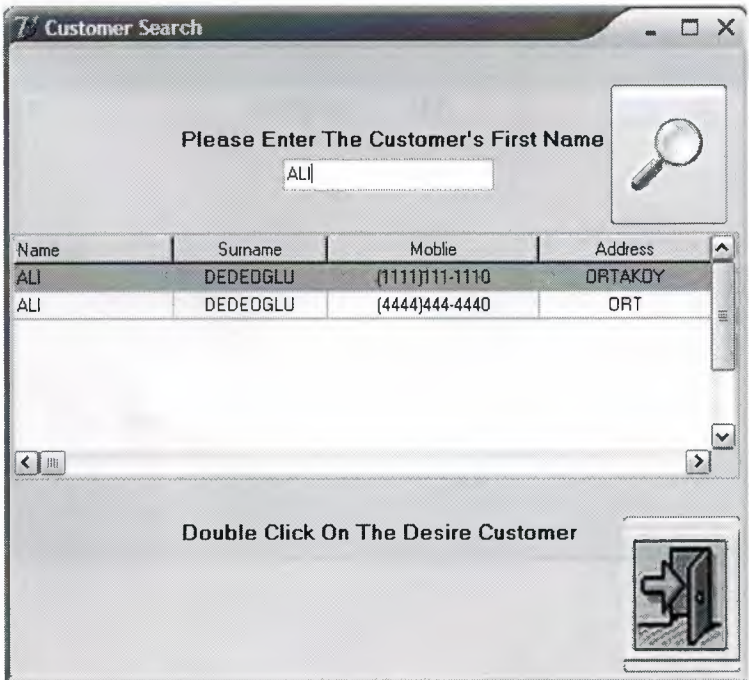
Icons:



Customer Search

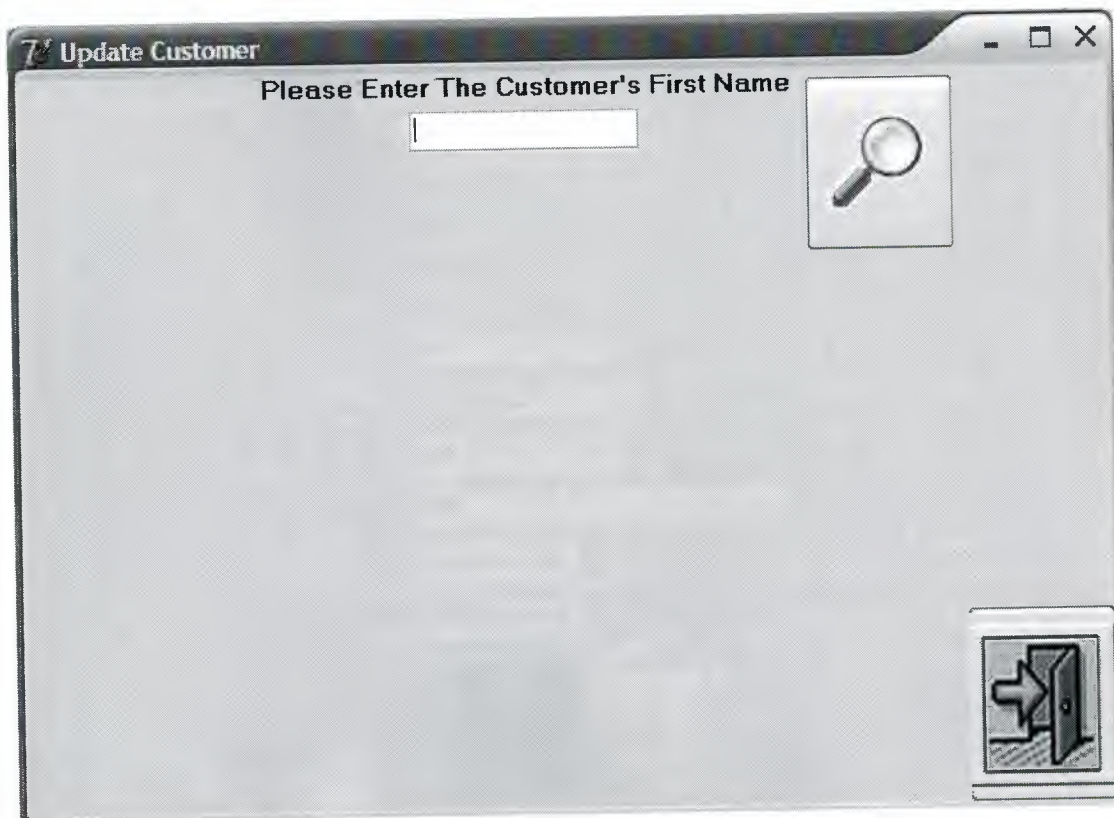


Customer Search(continue)







## UpdateCustomer

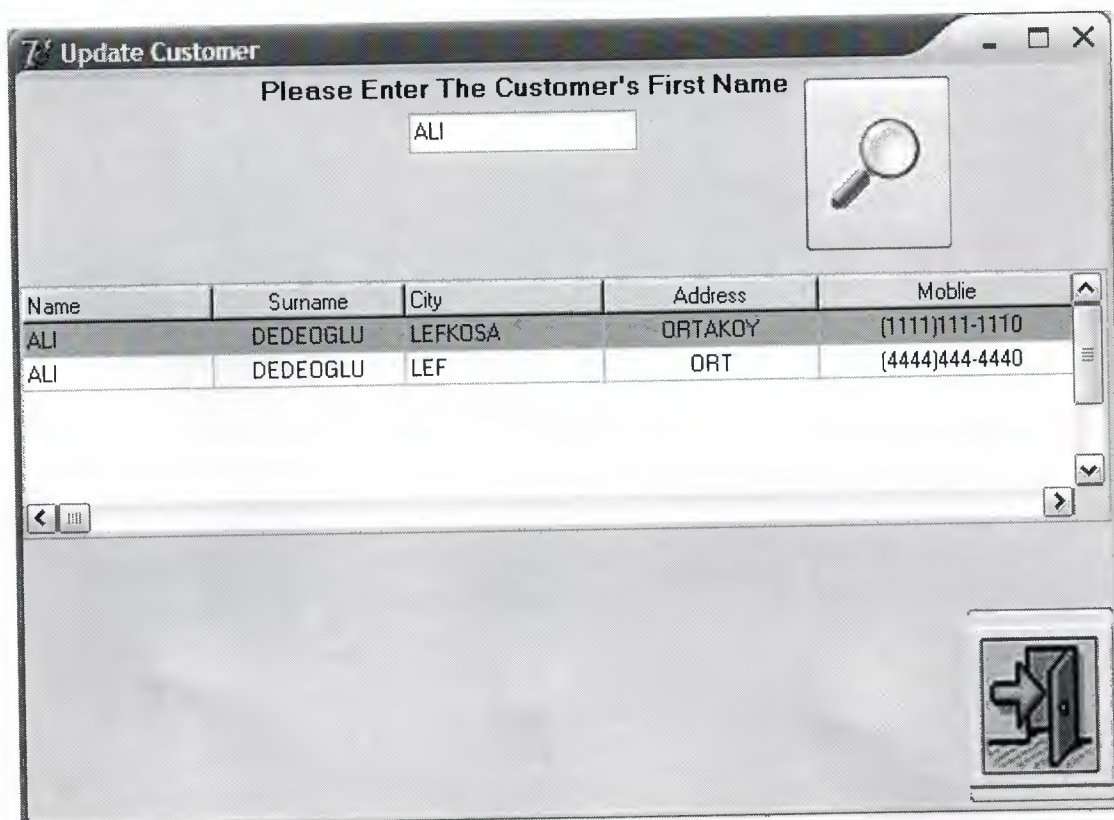


7 Update Customer

Please Enter The Customer's First Name




## Update Customer(Continued)




7 Update Customer

Please Enter The Customer's First Name



Name	Surname	City	Address	Mobile
ALI	DEDEOGLU	LEFKOSA	ORTAKOY	(1111)111-1110
ALI	DEDEOGLU	LEF	ORT	(4444)444-4440



## Update Customer(Continued)

**Update Customer**

Please Enter The Customer's First Name

ALI

Customer Information

Name ALI

Surname DEDEOGLU




City LEF

Address ORT

Mobile (4444)444-4440

Telephone (4444)444-4444

Clear





## Change Item Price

**Change Price** [Min] [Max] [Close]

Name

Current Price

New Price  YTL



## Item Submission


**Item Submission**


Please Enter A Customer Name Or A Reciept Number

Ticket\_No

Telephone

Mobile

 Search



## Item Submission(Receipt Printing)

**Item Submission**

ITEM SUBMISSION

Ticket No



Date

Name  Surname  Telephone  Acception Date

Submission Date

Itemname	Itemprice	quantity	subtotal
Short-Sleeved Shirt	5	3	15
T-Shirt	3	4	12

Total  YTL



## Ticket Selection

**7S Ticket Selection**

Customer Name

Customer Surname


Address

Telephone

Mobile


**Double Click On The Desired Ticket**

Ticket No	Acception Date	Submission D
92	19/06/2007	20/06/2007
87	16/06/2007	19/06/2007



## Reports

**7S Reports**



## APPEDIX II

The source codes of my program can be seen on the COMPAC DISC that I provided you.