



**NEAR EAST UNIVERSITY**

**FACULTY OF ECONOMIC AND  
ADMINISTRATIVE SCIENCES**

**DEPARTMENT OF COMPUTER INFORMATION  
SYSTEMS**

**2007/2008 FALL**

**CIS 400  
(GRADUATION PROJECT)**

**“WATER DISTRIBUTOR SYSTEM”**

**SUBMITTED TO : DEPT. OF CIS**

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**Lefkoşa 2008**



## TABLE OF CONTENTS

ACKNOWLEDGEMENTS .....	1
ABSTRACT .....	2
INTRODUCTION .....	3
PROCESSES .....	4
DESIGN OF THE SYSTEM .....	5
PROJECT IDENTIFICATION AND SELECTION .....	7
THE AIM OF THE PROJECT .....	7
THE PROJECT BOUNDRIES .....	8
RESOURCE LIMITS .....	9
PROJECT INITIATION AND PLANNING .....	10
TECHNICAL FEASIBILITY .....	10
OPERATIONAL FEASIBILITY .....	10
ECONOMICAL FEASIBILITY .....	10
ANALYSIS .....	11
✓ DATABASE TABLES .....	14
DATA FLOW DIAGRAMS .....	15
MENU SCHEMA .....	20
✓ FLOWCHARTS .....	21
SCREENSHOTS.....	36
SOURCE CODES .....	43
REFERENCES .....	67

## **ACKNOWLEDGEMENTS**

This project will be prepared by me, with advise of Dr.Yalçın AKÇALI and Assoc. Prof. Dr Ilham Huseynov to be submitted to Department Of Computer 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.

## **ABSTRACT**

Generally water distibutors have a big problem. This problem can be explained as “too much time spend in record of the orders”. Most commonly feature of this project is easy order and sale processing. I achieved this purpose by a high level coding technology.

Another thing I have to focus ; I plan to sell this software to the other companies in the same sector. After the acceptance of this project the full version will be sent again and will be marketed to all the water distributors in TRNC.

## **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.

## DESIGN OF THE SYSTEM

### Processes

#### 1. Purchase Process

- 1.1 New Supplier Registration Subprocess
- 1.2 New Product Registration Subprocess
- 1.3 Purchase Subprocess

#### 2. Stock Process

#### 3. Sale Process

- 3.1 Customer Subprocess
- 3.2 Sale Subprocess

#### 4. Report Process

- 4.1 Customer Report Subprocess
- 4.2 Supplier Report Subprocess
- 4.3 Purchase Report Subprocess
- 4.4 Sale Report Subprocess
- 4.5 Product Report Subprocess
- 4.6 Customer Accounting Report Subprocess
- 4.7 Supplier Accounting Report Subprocess
- 4.8 Stock Report Subprocess

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

- ✓ Intel Pentium IV processor 3.0
- ✓ 800 Mhz
- ✓ 1 GB DDR RAM
- ✓ 120 GB HDD
- ✓ 256 MB Graphic Card
- ✓ 17'' Monitor
- ✓ Microsoft Windows XP Professional
- ✓ CD-ROM 52xmax
- ✓ Modem

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

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

### **THE AIM OF THE PROJECT :**

The aim of my project is to provide easy and quick management of records for water distributors. The job segment may be seen very easy but requires a fast and powerful customer relationship management and effective usage of automation system.

When an order arrived to the Water World by phone it will be recorded to the system.

If the customer is recorded before to our database then only the order is recorded. If not recorded then the user takes the customers detailed information (name, company, phone, address, etc...) and records it.

Then the user of the system will determine when the water is distributed.

After the distribution is finished the billing details are recorded.

## **THE PROJECT BOUNDRIES**

- 1)** System can work on a single PC.
- 2)** System will not connect to internet so can not update itself
- 3)** System can not communicate with the suppliers because of being an offline system.
- 4)** Microsoft Access doesn't support multiple users at the same time.  
So the users of this system can not use the same tables.

## **RESOURCE LIMITS**

- 1) System has to be able to scan bar codes for stock and purchase processes. A bar code scanner is required but I don't have.
- 2) The project will have a special interface using photoshop styles and extensions. Program will start with a prompt screen and only the authorized user may have the right to use program.

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

### **TECHNICAL FEASIBILITY**

Necessary Hardwares :

- 1 computer for the manager (necessary)
- 1 computer for the secretary. (suggested)
- At least 1 printer

### **OPERATIONAL FEASIBILITY**

The manager and the other employees who will use the system must have at least low level computer using skill for being educated about the system.

### **ECONOMICAL FEASIBILITY**

System can replace an employee's work on like basic accounting, stock controlling, statistical report preparing, etc.. So the owner can save at least one employees' salary monthly. This system will cost for the owner about 1000 at total. This cost includes a simple computer, a bar code scanner, a printer.

## **5) ANALYSIS**

### **THE REQUIREMENT DETERMINATION :**

The requirements made by the owner as follows:

- To increase the speed of operations
- To provide easy and quick Access
- Recording of the distribution daily
- Detailed customer cards

## **EXISTING SYSTEM'S CAPABILITIES**

- The Water Distributor's existing system is based on manual.
- The Inventory is written on the ledger notebooks and the stock is being calculated by using this notebook
- A customer card is held for Customer Relationship Management

## **NEW SYSTEM'S PROVIDENCES**

- New system will help to the user easy and quick search of the information about all the data.
- A worker can easily record stock and sale informations.
- All the transactions by the customers will be stored in the database.
- Stocks, customers, purchase, suppliers and sale reports will be prepared with one click

# Tables in Design

## DATABASE TABLES

### 1. Customers :

All the customer knowledge will be stored here.

### 2. Sale :

The detailed sale and order information will be stored here.

### 3. Purchase :

The detailed purchase information will be stored here.

### 4. Products

The products general information which company sells are stored here.

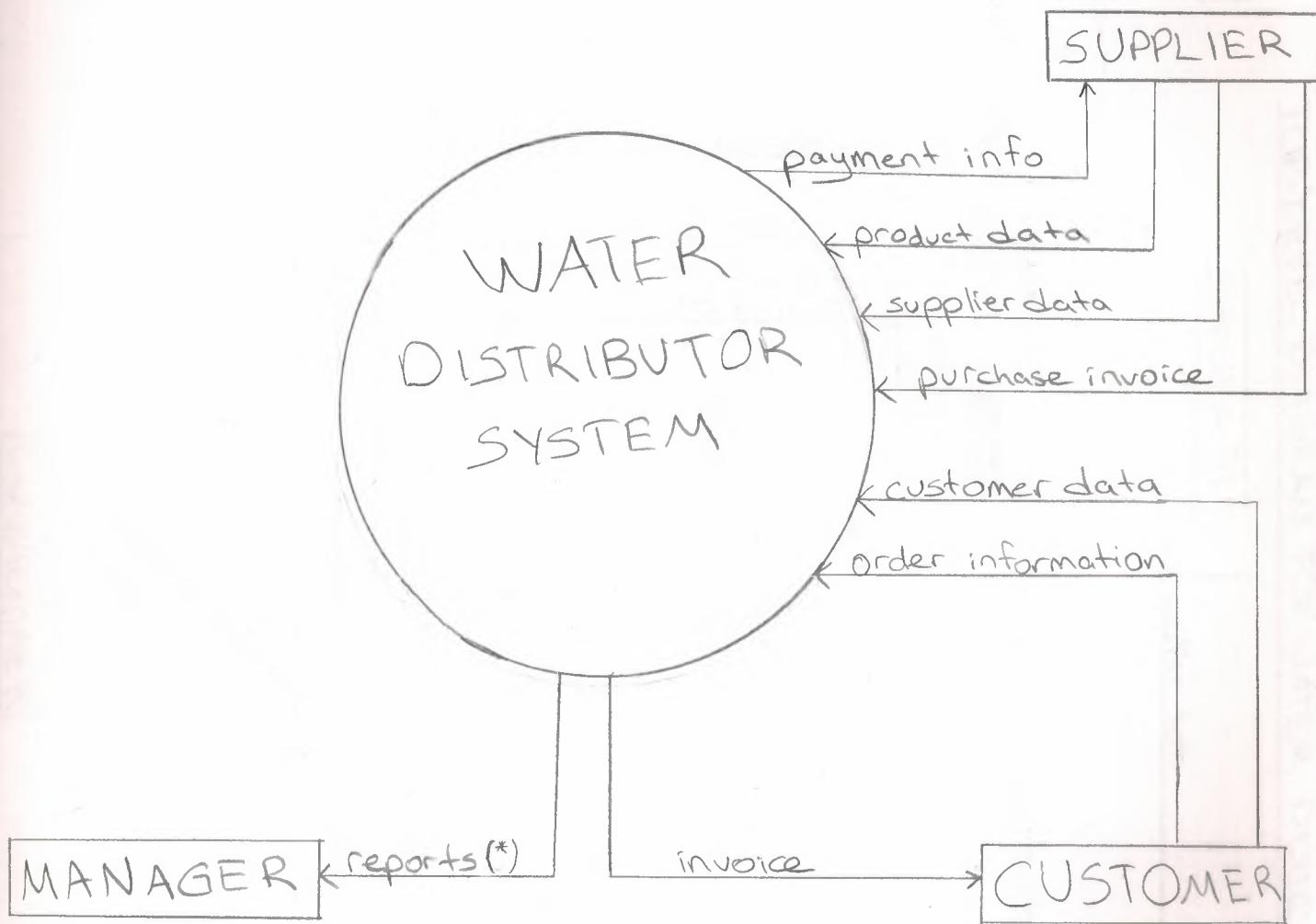
### 5. Stocks

The recorded products' quantity information are stored here.

### 6. Suppliers

The companies which we purchase our stocks are stored here

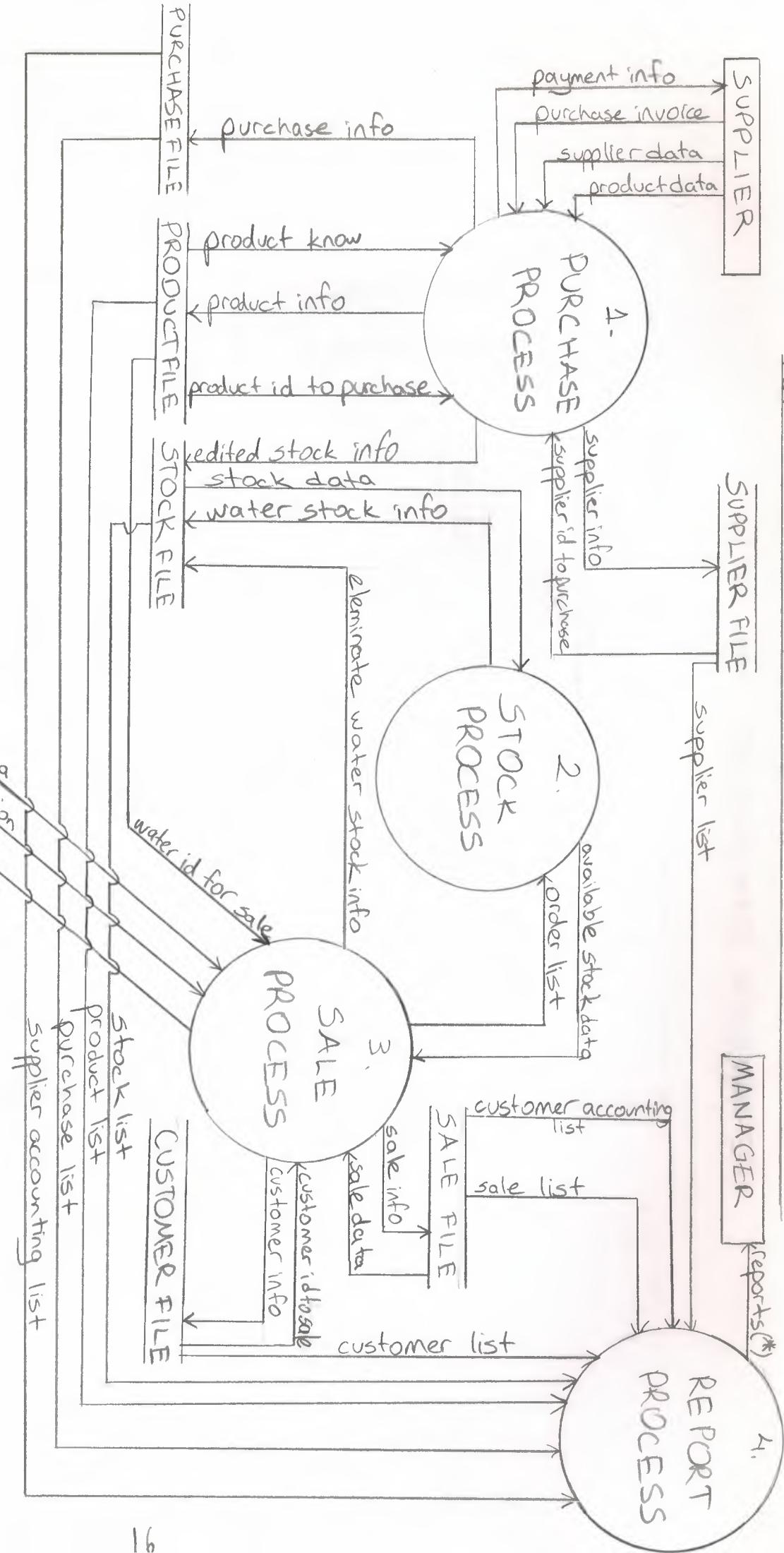
## CONTEXT DIAGRAM FOR WATER DISTRIBUTOR SYSTEM



### REPORTS(\*)

- 1-Customer List
- 2-Supplier List
- 3-Purchase List
- 4-Sale List
- 5-Product List
- 6-Customer Accounting List
- 7-Supplier Accounting List
- 8-Stock List

# TOP-LEVEL DIAGRAM FOR WATER DISTRIBUTOR SYSTEM

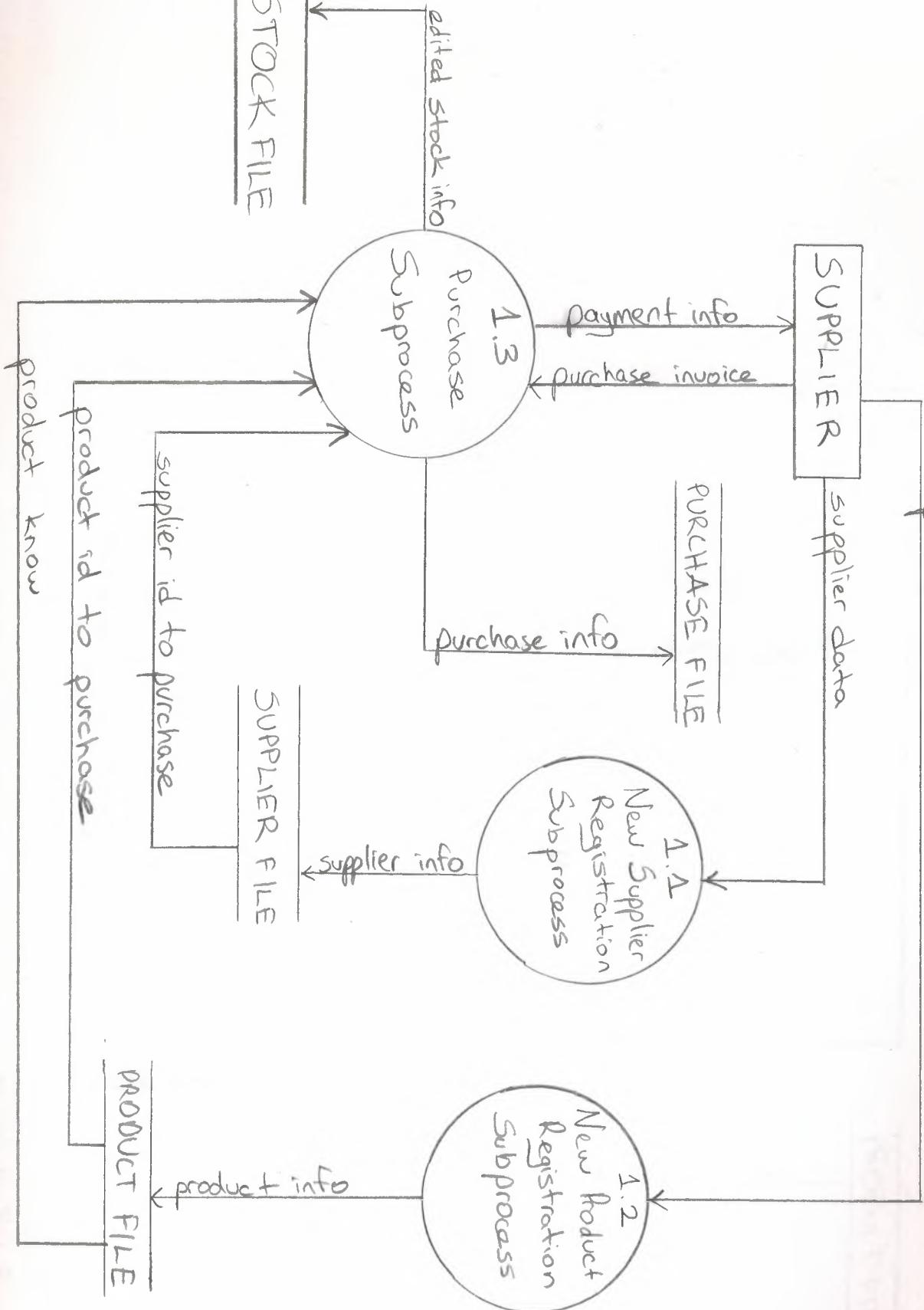


## REPORTS(\*)

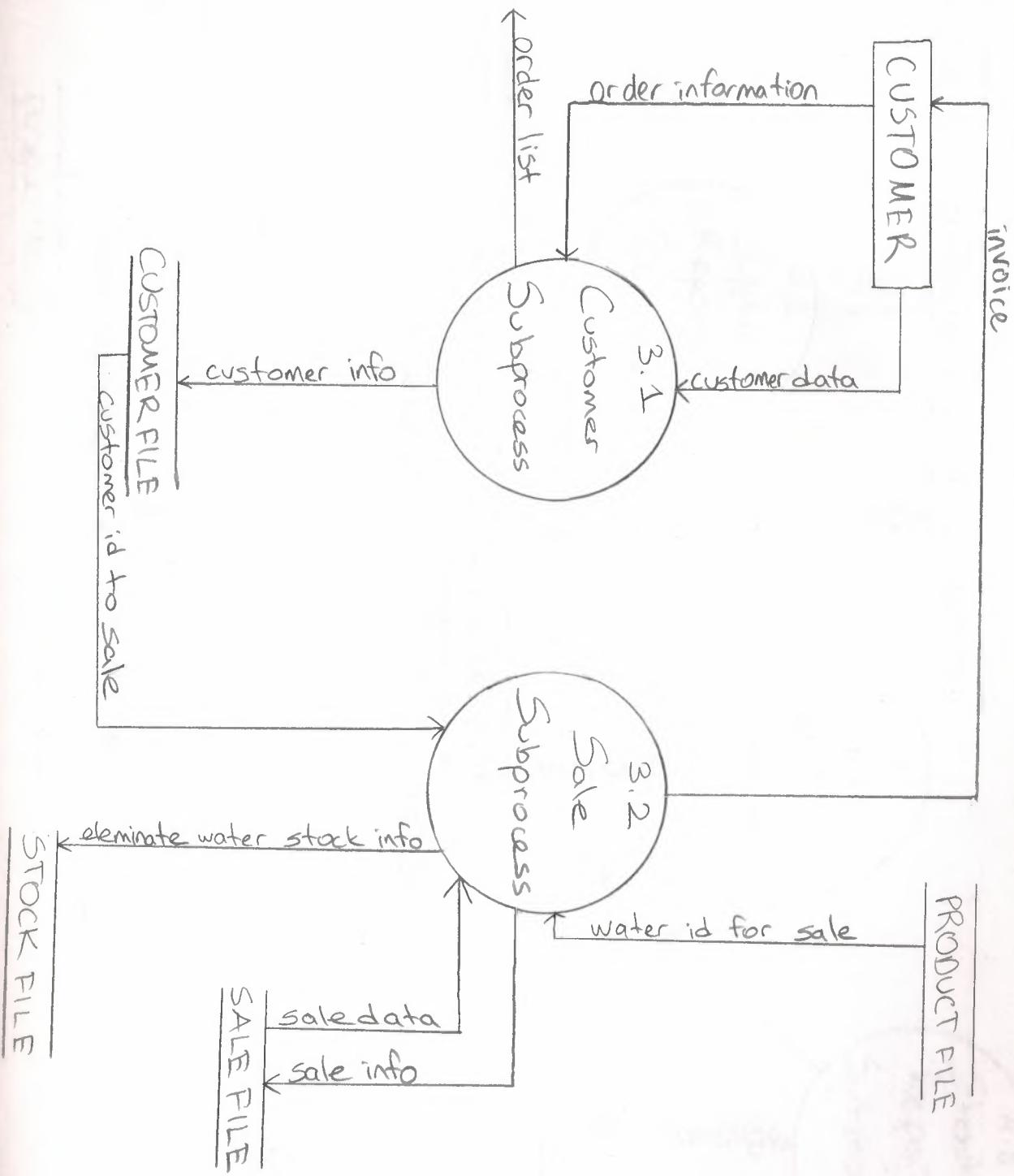
- 1-Customer List
- 2-Supplier List
- 3-Purchase List
- 4-Sale List
- 5-Product List
- 6-Customer Accounting List
- 7-Supplier Accounting List

## DETAIL DFD FOR PURCHASE PROCESS

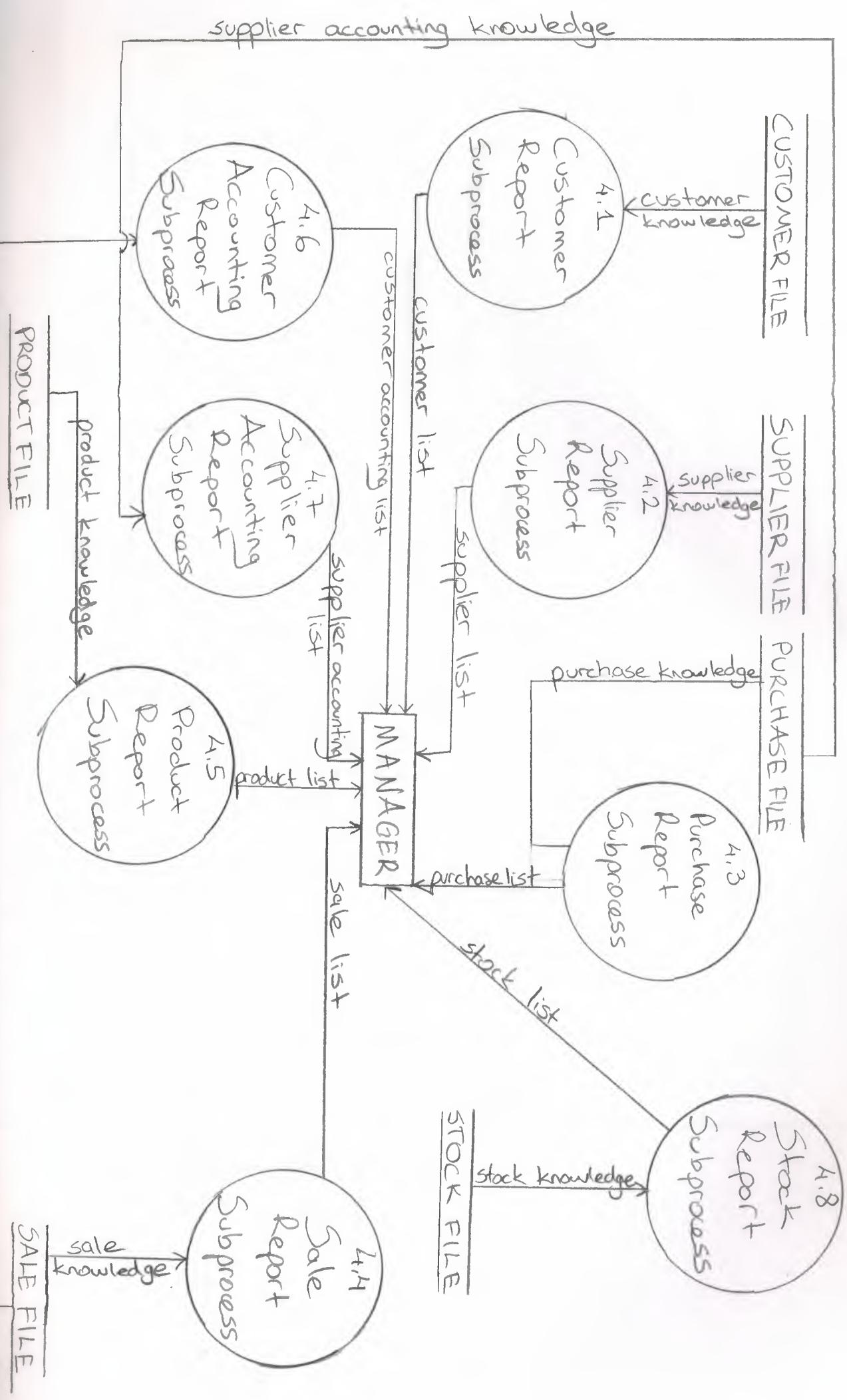
product data



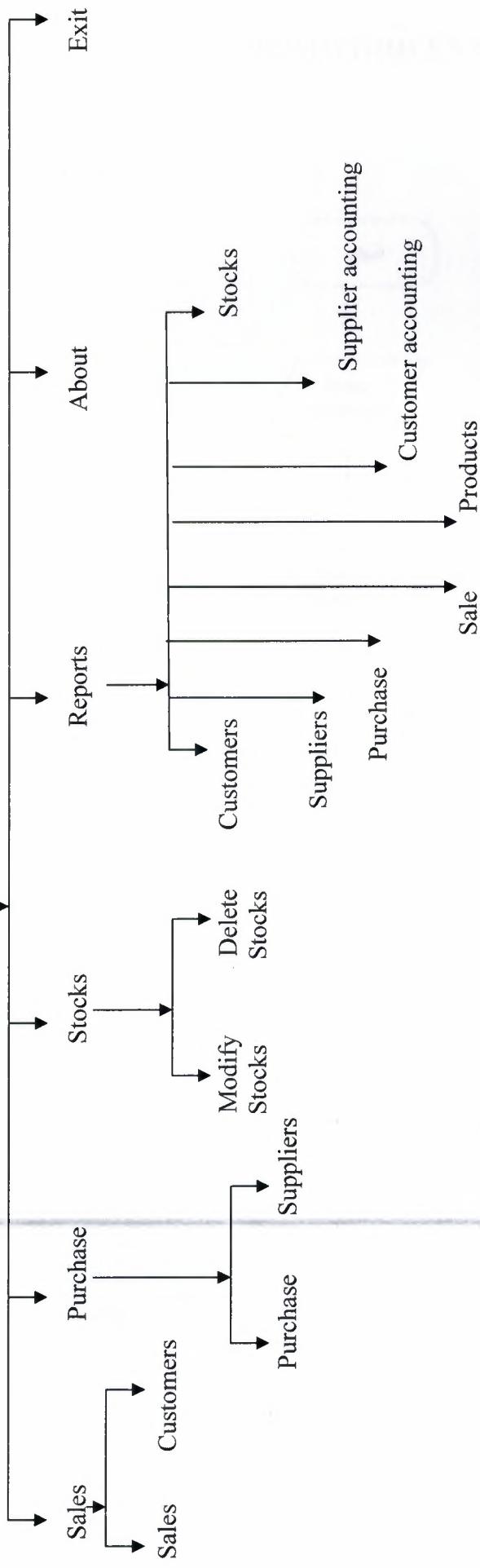
# DETAIL DFD FOR SALE PROCESS



# DETAIL DFD FOR REPORT PROCESS

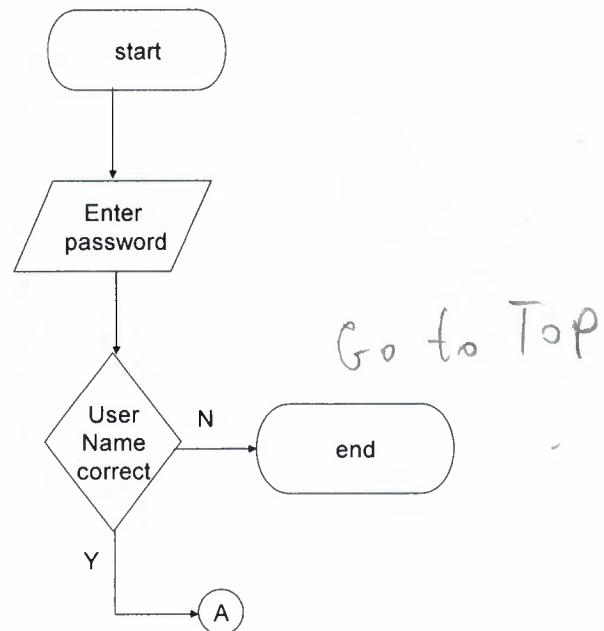


## MAIN MENU

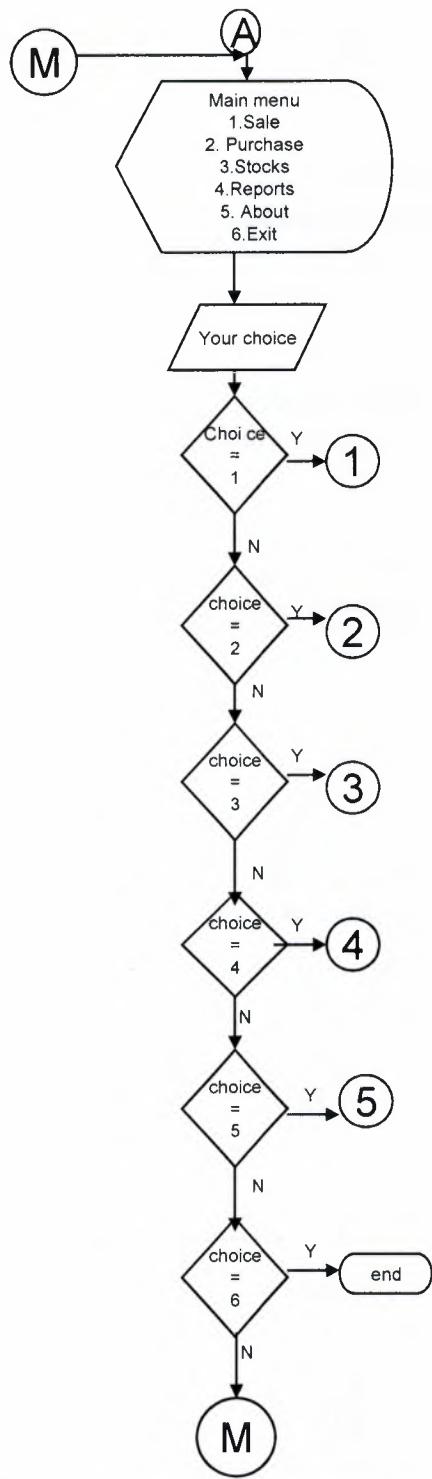


# FLOWCHARTS

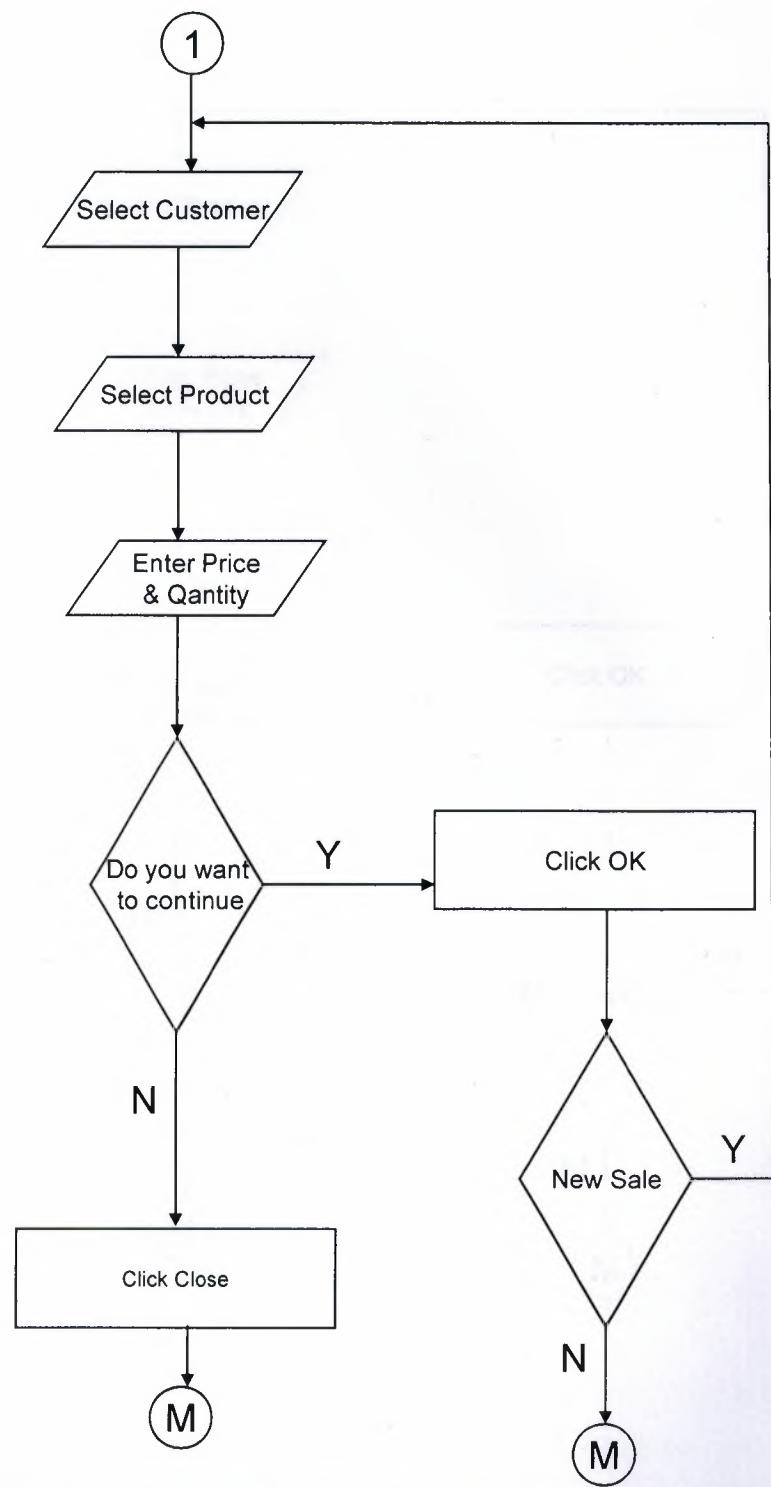
## PASSWORD ENTRY



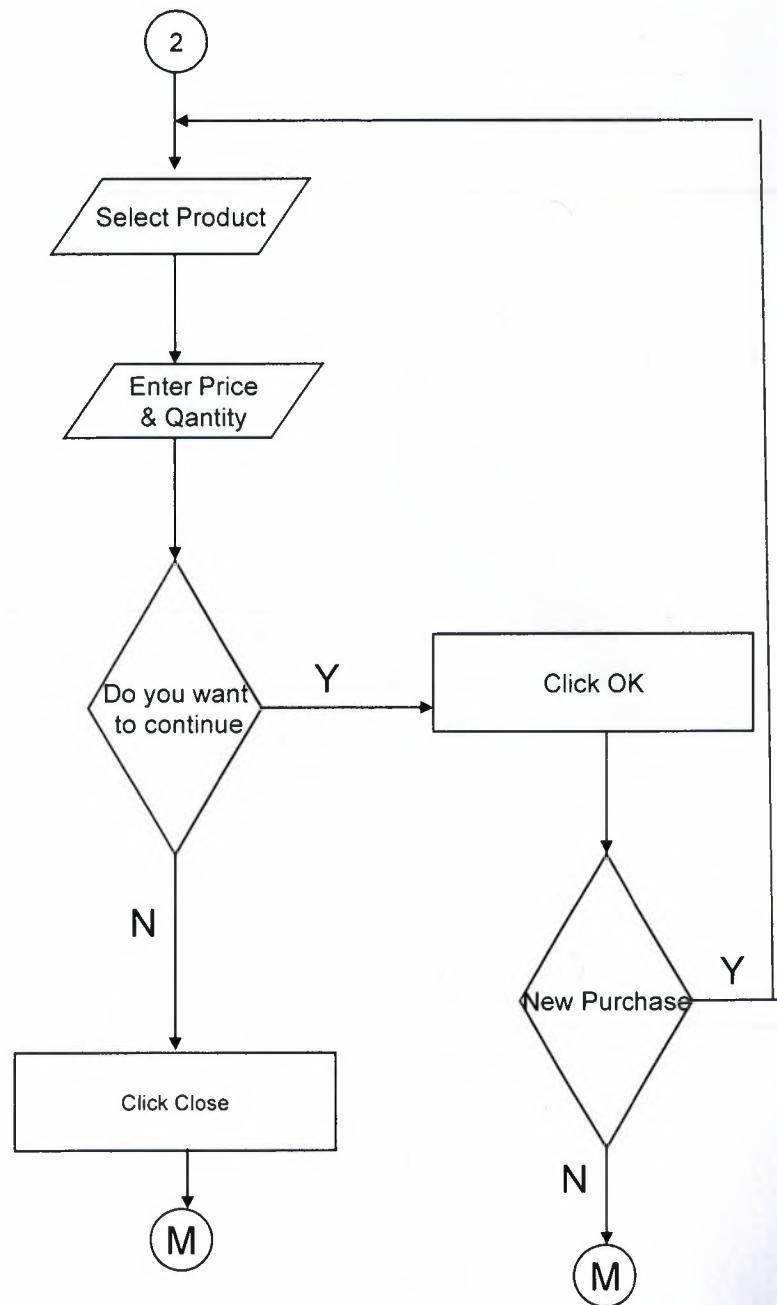
## MAIN MENU



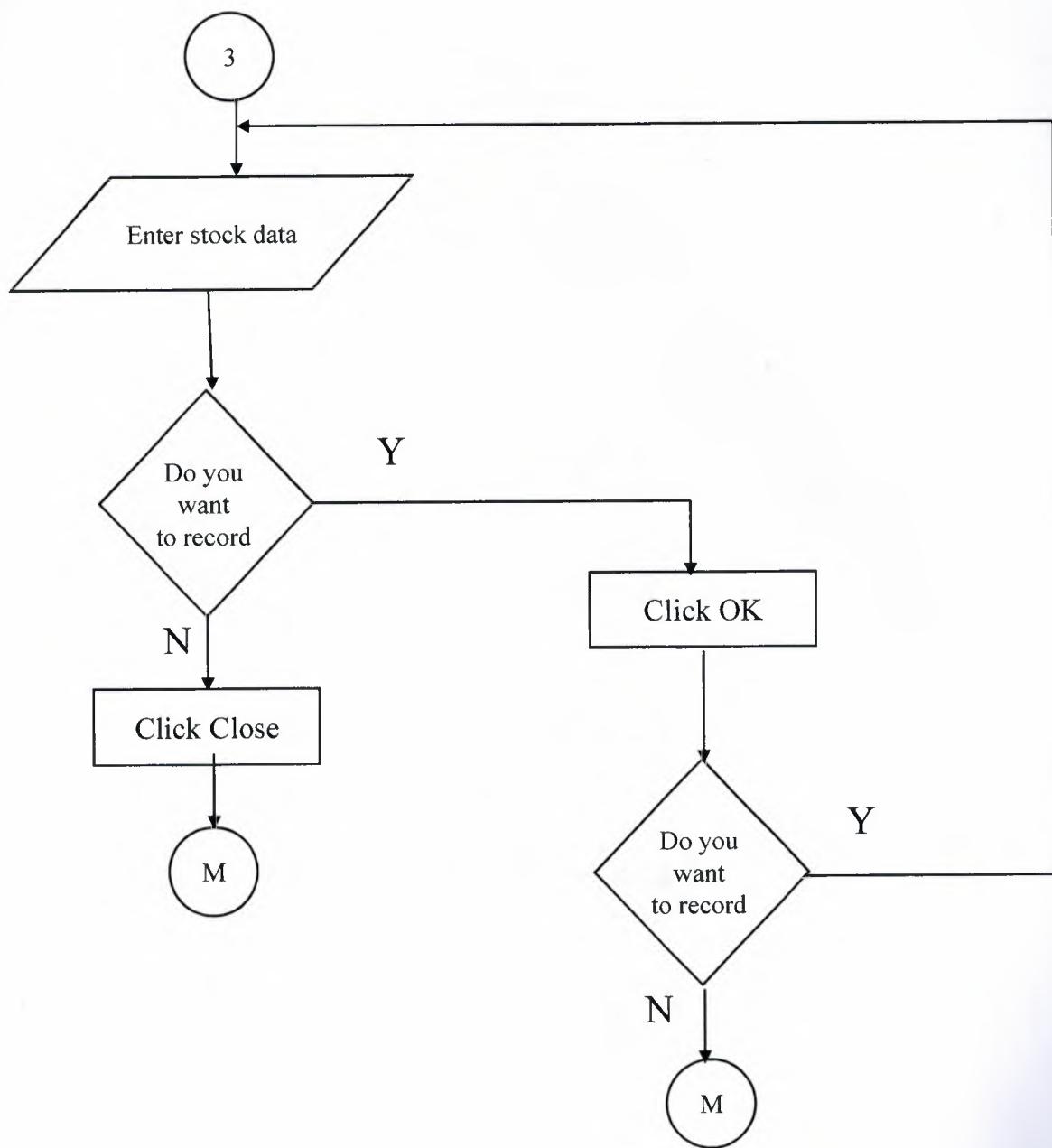
## SALE



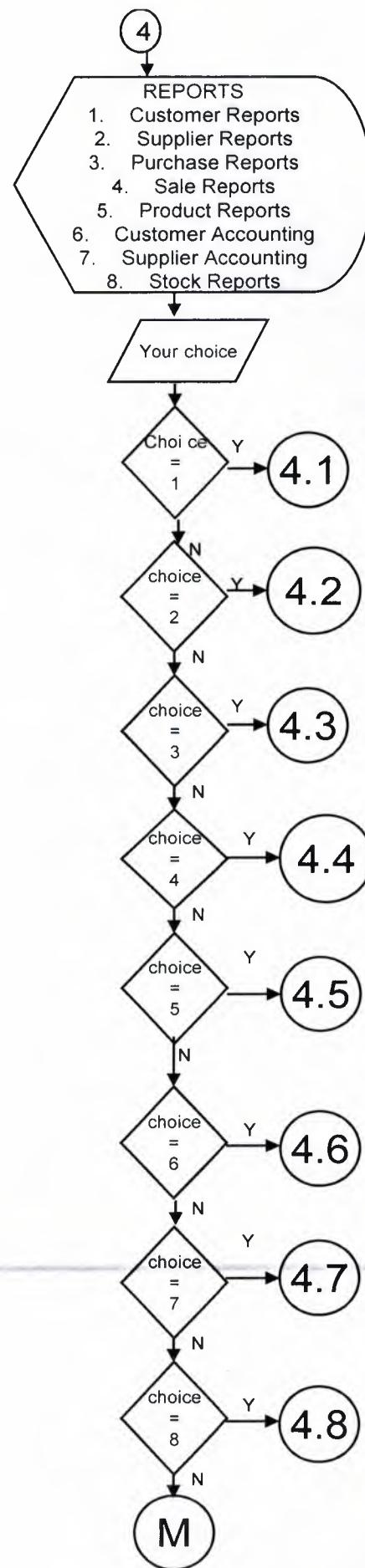
## PURCHASE



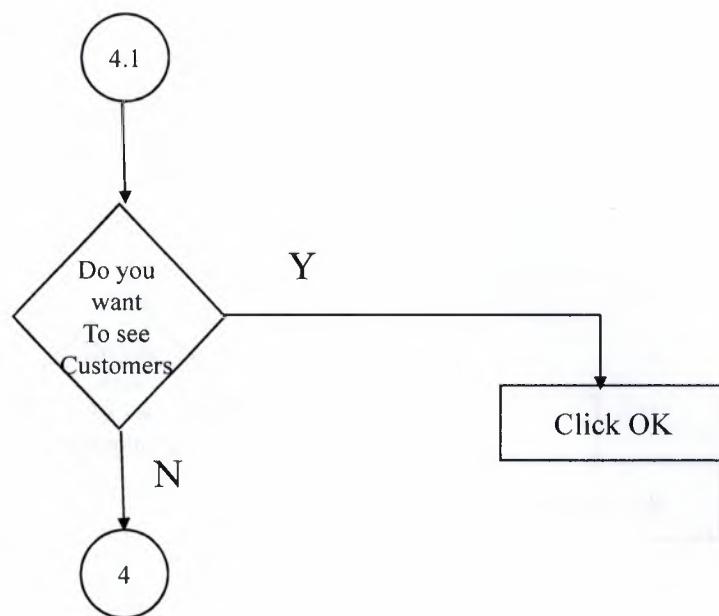
## STOCKS



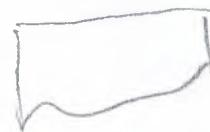
## REPORTS



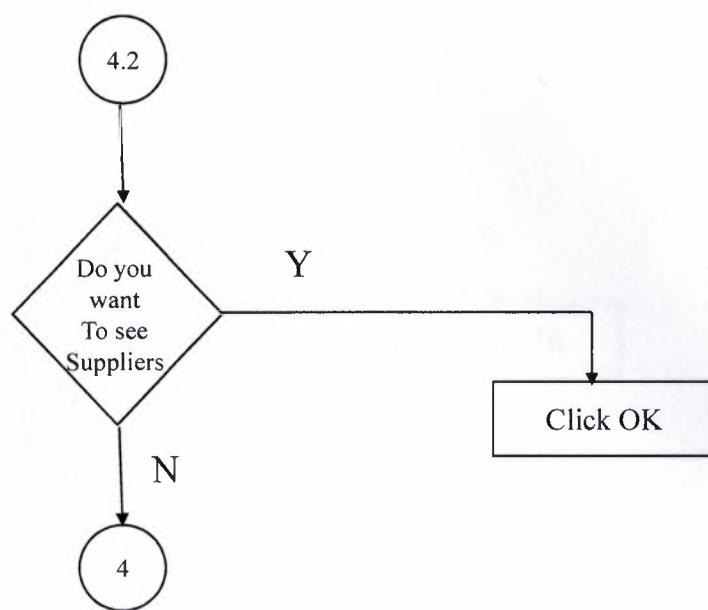
## CUSTOMERS REPORT



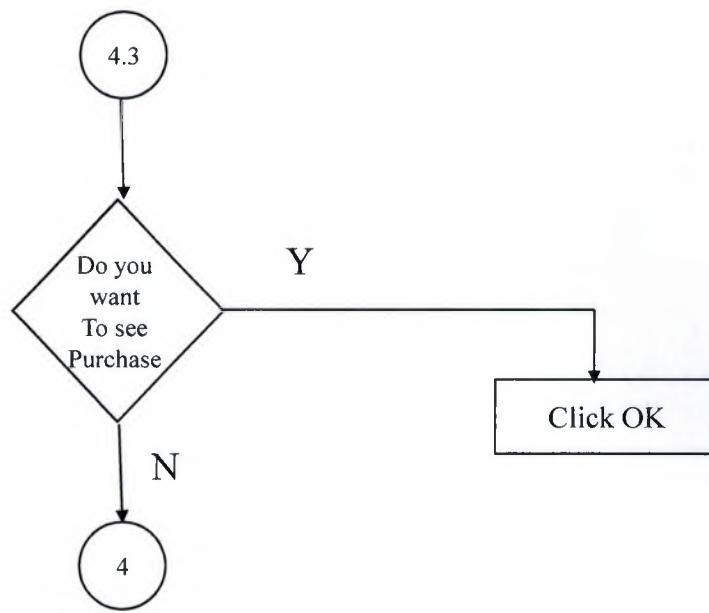
7  
Customer  
Report

A handwritten note in blue ink. It starts with the number "7" at the top right. Below it, the words "Customer Report" are written in a cursive script. To the left of the main text, there is a small, roughly drawn rectangular box.

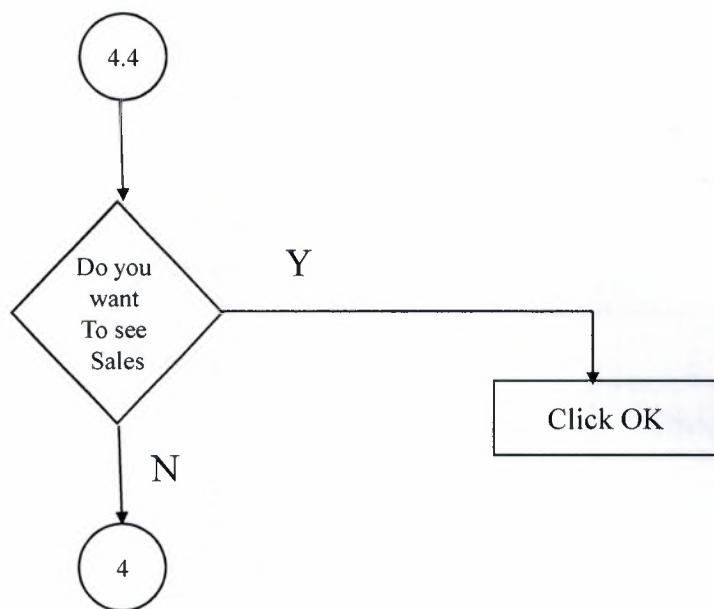
## SUPPLIERS REPORT



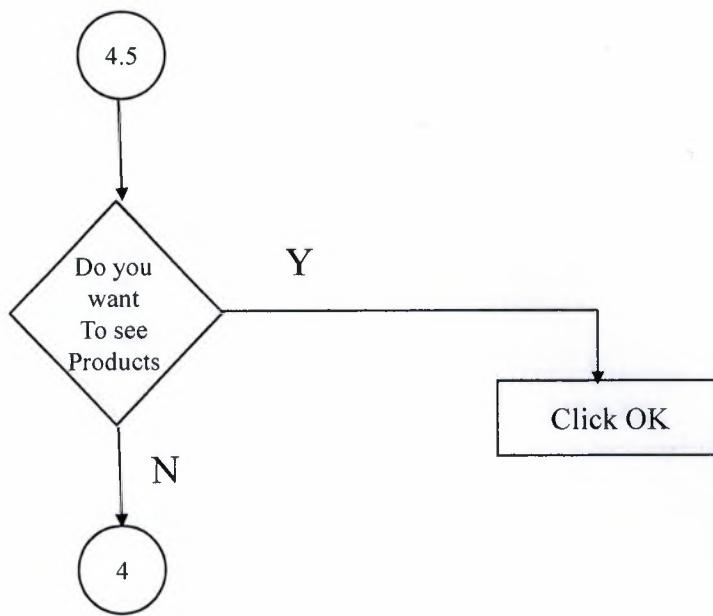
## PURCHASE REPORTS



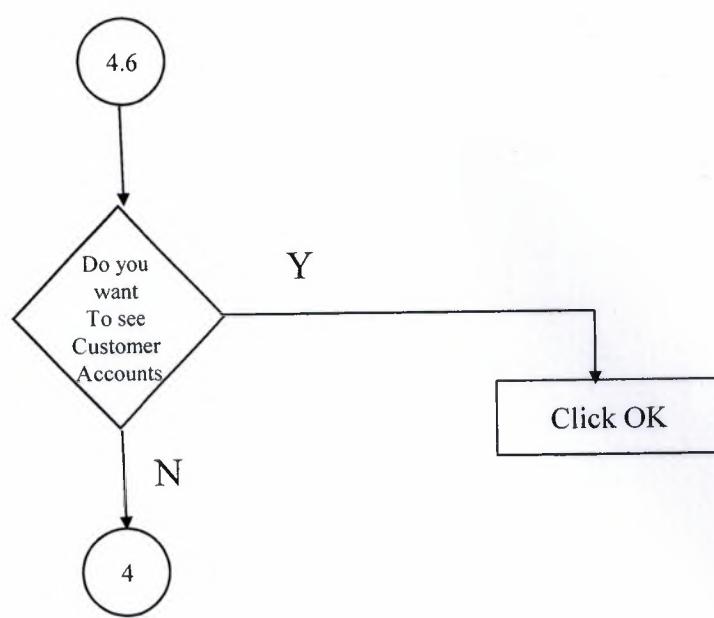
## SALE REPORTS



## PRODUCTS REPORT

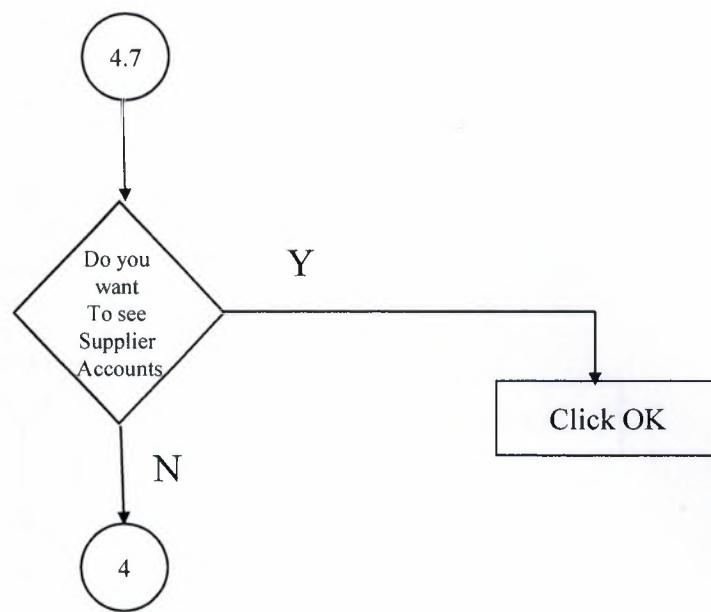


## CUSTOMER ACCOUNTING REPORTS

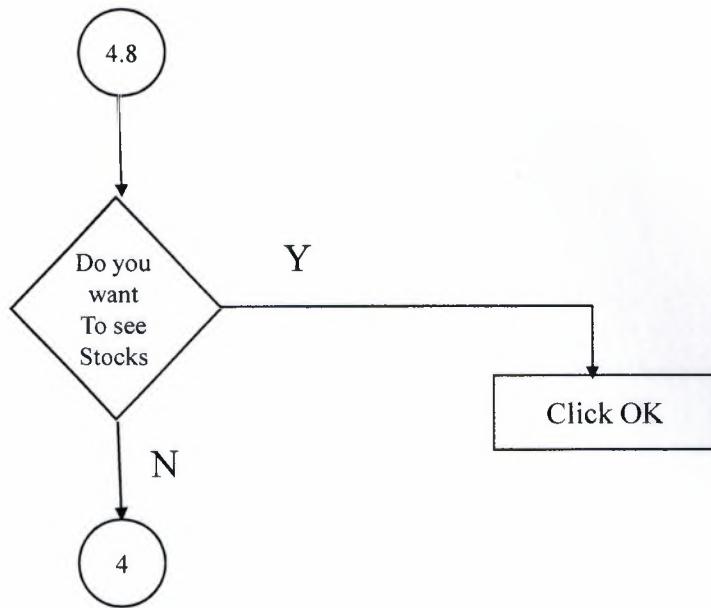


?

## SUPPLIER ACCOUNTING REPORTS

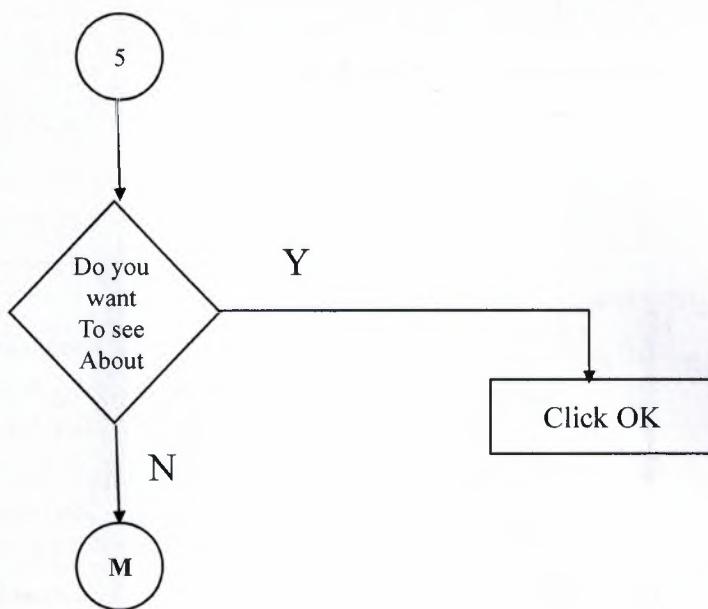


## STOCKS REPORT



?

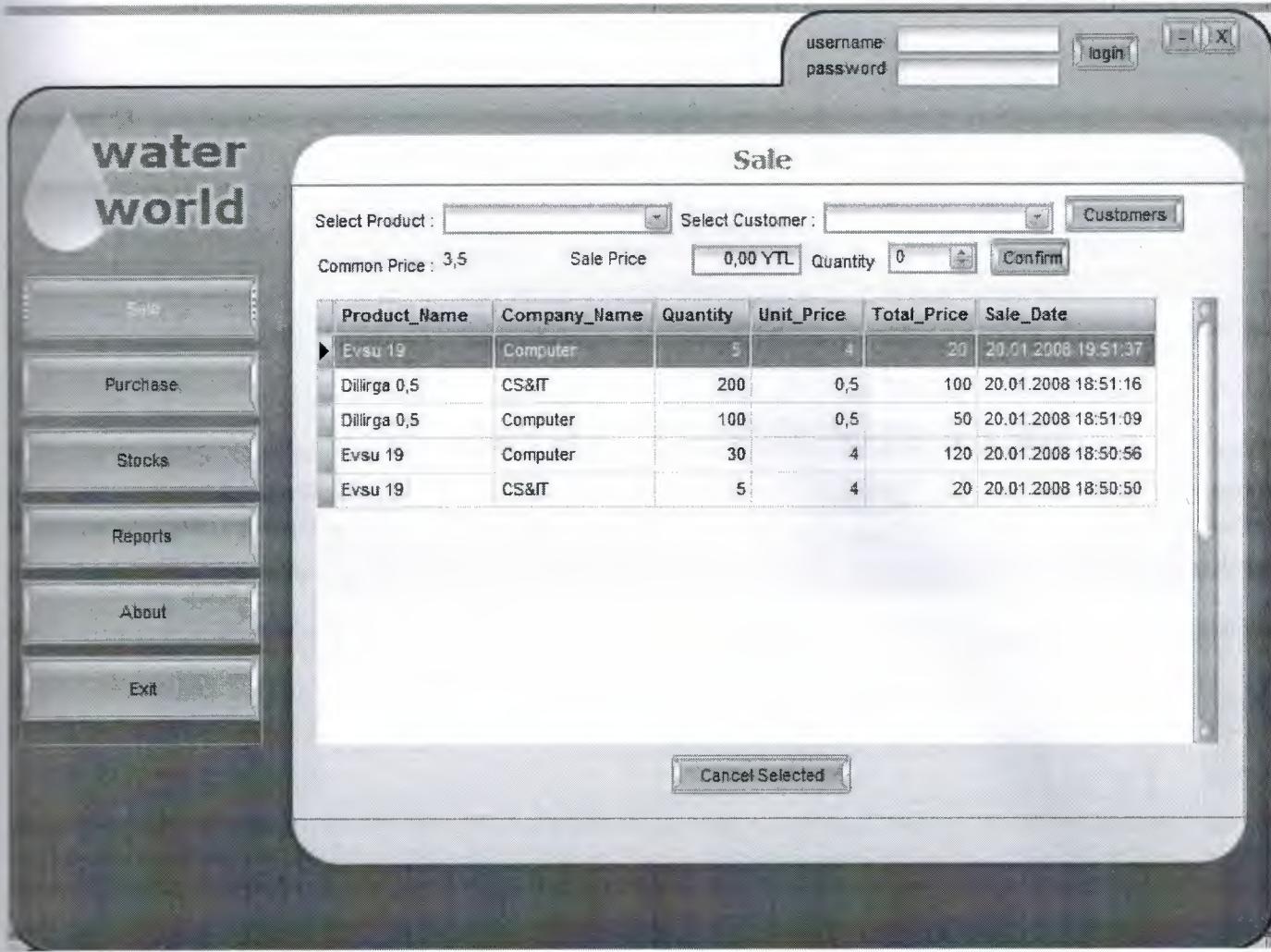
## ABOUT



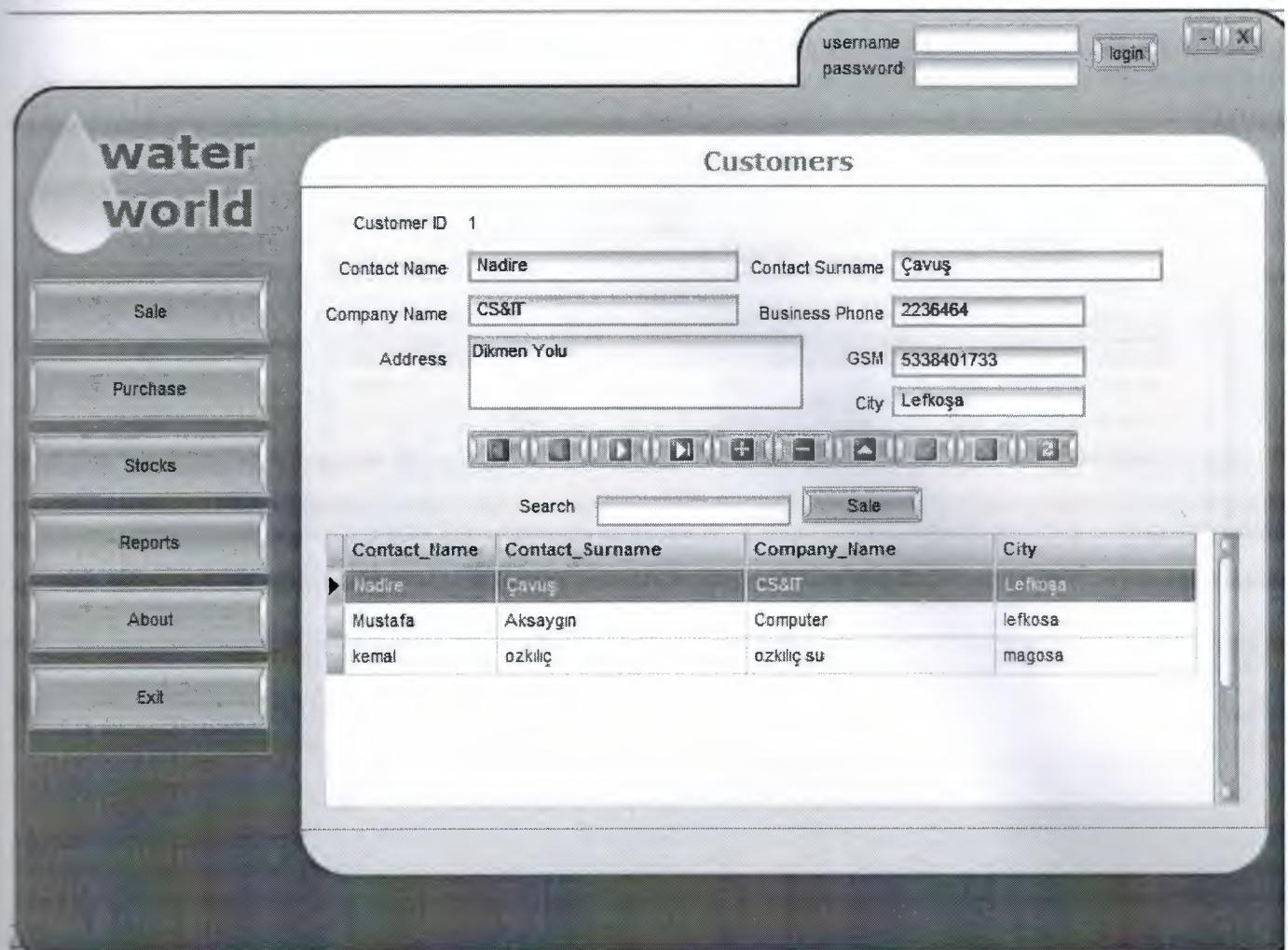
## SCREENSHOTS



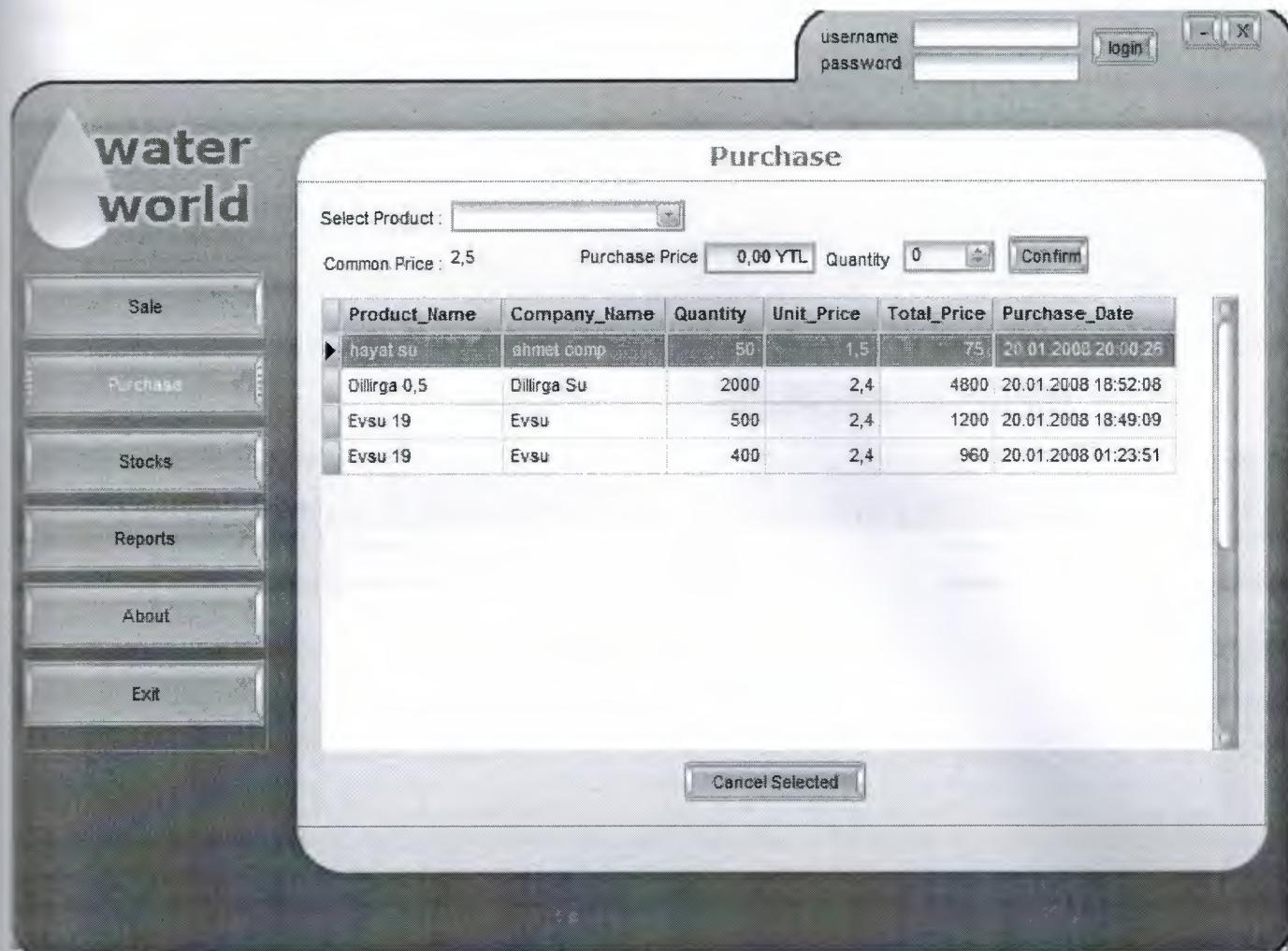
MAIN MENU



**SALE**



## CUSTOMERS



## PURCHASE

# water world

Sale

Purchase

Stocks

Reports

About

Exit

username  password  login X

## Suppliers

Supplier ID 1

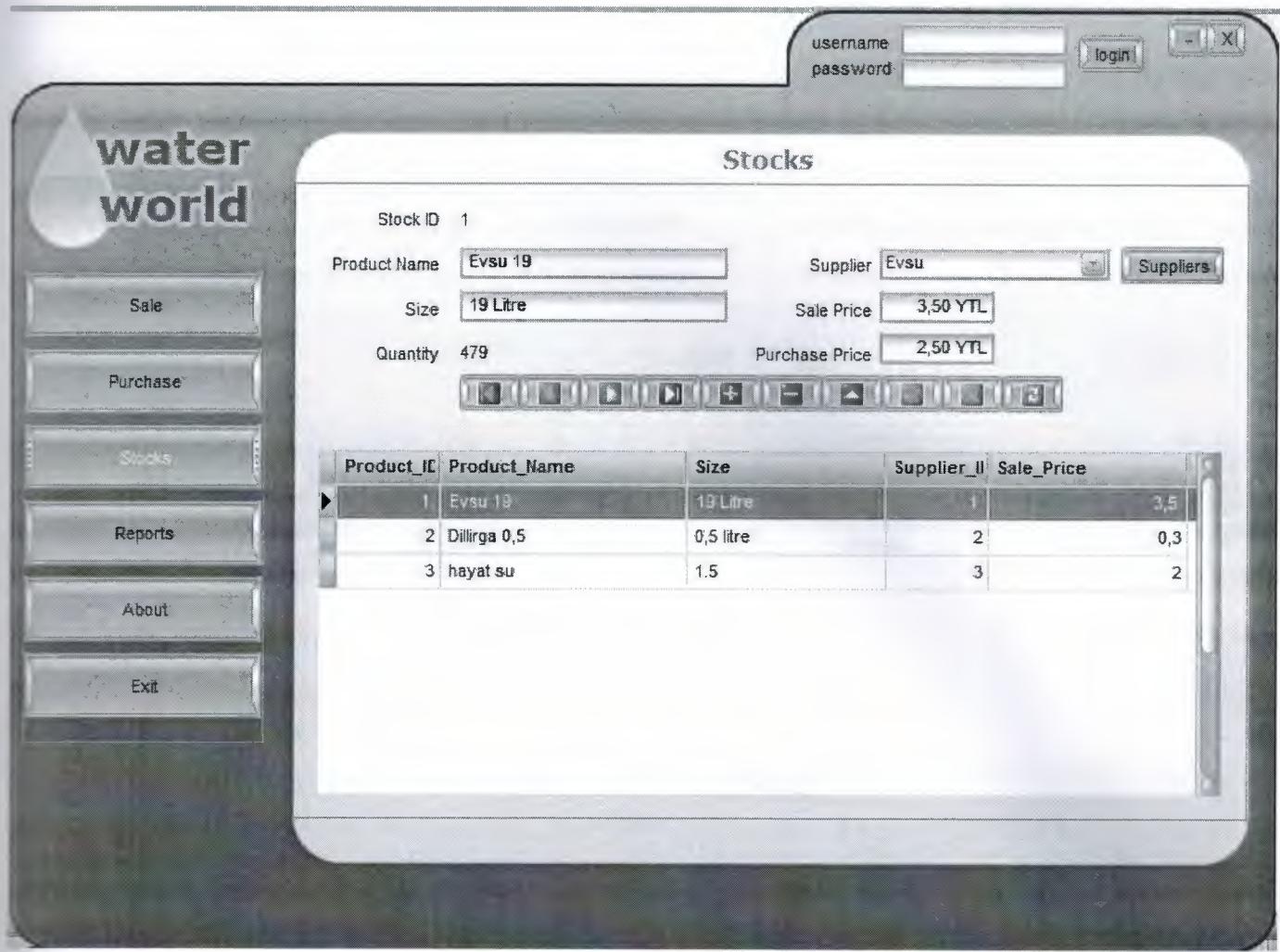
Company Name  Phone

Contact Name  Fax

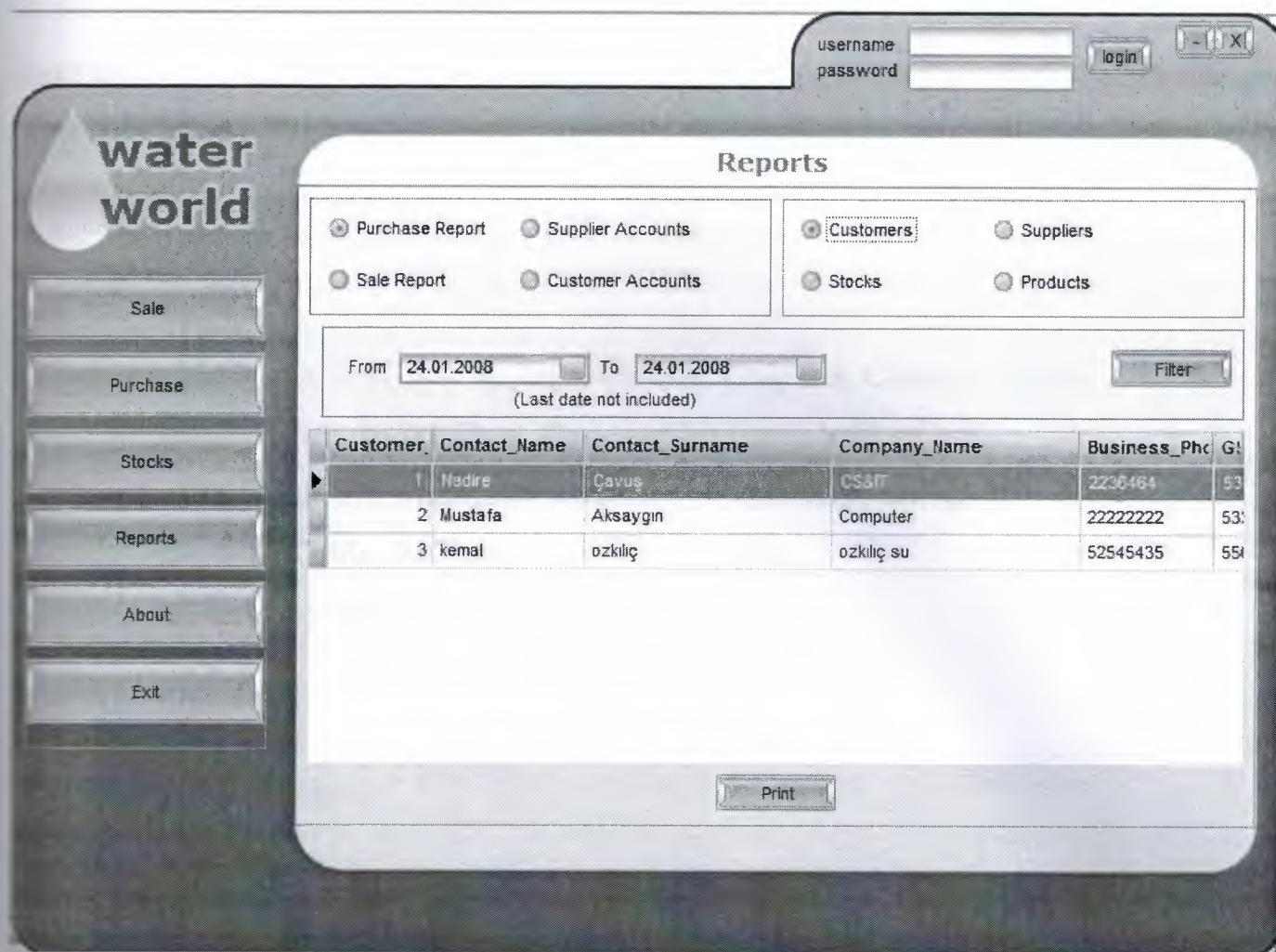
City

Company_Name	Contact_Name	City
Evsu	Ahmet Bey	Lefkoşa
Dillirga Su	Yalçın Bey	Girne
ahmet comp	ahmet baba	lefkosa

## SUPPLIERS



## STOCKS



## REPORTS

## SOURCE CODES

```
unit Unit1;

interface

uses

Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
Dialogs, jpeg, ExtCtrls, bsSkinData, BusinessSkinForm, bsSkinCtrls,
bsSkinBoxCtrls, StdCtrls, Mask, bsMessages, DB, ADODB, bsdbctrls,
bsSkinGrids, bsDBGrids, frxClass, frxDBSet, OleCtrls,
ShockwaveFlashObjects_TLB;

type
TForm1 = class(TForm)
Image1: TImage;
bsBusinessSkinForm1: TbsBusinessSkinForm;
bsSkinData1: TbsSkinData;
bsCompressedStoredSkin1: TbsCompressedStoredSkin;
bsSkinButton1: TbsSkinButton;
bsSkinButton2: TbsSkinButton;
bsSkinStdLabel1: TbsSkinStdLabel;
bsSkinStdLabel2: TbsSkinStdLabel;
bsSkinEdit1: TbsSkinEdit;
bsSkinMaskEdit1: TbsSkinMaskEdit;
bsSkinButton3: TbsSkinButton;
bsSkinStdLabel3: TbsSkinStdLabel;
bsSkinPanel1: TbsSkinPanel;
bsSkinButton4: TbsSkinButton;
bsSkinButton5: TbsSkinButton;
bsSkinButton6: TbsSkinButton;
bsSkinButton7: TbsSkinButton;
```

```
bsSkinMessage1: TbsSkinMessage;
bsSkinPanel2: TbsSkinPanel;
ADOConnection1: TADOConnection;
bsSkinTextLabel1: TbsSkinTextLabel;
bsSkinTextLabel2: TbsSkinTextLabel;
bsSkinDBText1: TbsSkinDBText;
bsSkinDBEdit1: TbsSkinDBEdit;
bsSkinDBEdit2: TbsSkinDBEdit;
bsSkinDBEdit3: TbsSkinDBEdit;
bsSkinDBEdit4: TbsSkinDBEdit;
bsSkinDBMemo1: TbsSkinDBMemo;
bsSkinDBEdit5: TbsSkinDBEdit;
bsSkinDBEdit6: TbsSkinDBEdit;
bsSkinDBNavigator1: TbsSkinDBNavigator;
bsSkinDBGrid1: TbsSkinDBGrid;
bsSkinScrollBar1: TbsSkinScrollBar;
ADOTable1: TADOTable;
DataSource1: TDataSource;
bsSkinPanel3: TbsSkinPanel;
bsSkinTextLabel3: TbsSkinTextLabel;
bsSkinTextLabel4: TbsSkinTextLabel;
bsSkinDBText2: TbsSkinDBText;
bsSkinDBEdit7: TbsSkinDBEdit;
bsSkinDBEdit8: TbsSkinDBEdit;
bsSkinDBEdit9: TbsSkinDBEdit;
bsSkinDBEdit10: TbsSkinDBEdit;
bsSkinDBEdit11: TbsSkinDBEdit;
bsSkinDBNavigator2: TbsSkinDBNavigator;
bsSkinDBGrid2: TbsSkinDBGrid;
bsSkinScrollBar2: TbsSkinScrollBar;
DataSource2: TDataSource;
```

```
ADOTable2: TADOTable;
bsSkinPanel4: TbsSkinPanel;
bsSkinTextLabel5: TbsSkinTextLabel;
bsSkinTextLabel6: TbsSkinTextLabel;
bsSkinDBText3: TbsSkinDBText;
bsSkinDBEdit12: TbsSkinDBEdit;
bsSkinDBNavigator3: TbsSkinDBNavigator;
bsSkinDBGrid3: TbsSkinDBGrid;
bsSkinScrollBar3: TbsSkinScrollBar;
bsSkinDBLookupComboBox1: TbsSkinDBLookupComboBox;
ADOTable3: TADOTable;
DataSource3: TDataSource;
bsSkinDBEdit13: TbsSkinDBEdit;
bsSkinDBCurrencyEdit1: TbsSkinDBCurrencyEdit;
bsSkinDBCurrencyEdit2: TbsSkinDBCurrencyEdit;
ADOQuery1: TADOQuery;
bsSkinDBText4: TbsSkinDBText;
DataSource4: TDataSource;
bsSkinPanel5: TbsSkinPanel;
bsSkinTextLabel7: TbsSkinTextLabel;
bsSkinDBGrid4: TbsSkinDBGrid;
bsSkinScrollBar4: TbsSkinScrollBar;
bsSkinDBLookupComboBox2: TbsSkinDBLookupComboBox;
bsSkinDBText5: TbsSkinDBText;
bsSkinStdLabel4: TbsSkinStdLabel;
bsSkinStdLabel5: TbsSkinStdLabel;
bsSkinCurrencyEdit1: TbsSkinCurrencyEdit;
bsSkinSpinEdit1: TbsSkinSpinEdit;
bsSkinButton11: TbsSkinButton;
ADOTable4: TADOTable;
DataSource5: TDataSource;
```

```
ADOQuery2: TADOQuery;
bsSkinButton12: TbsSkinButton;
bsSkinPanel6: TbsSkinPanel;
bsSkinTextLabel8: TbsSkinTextLabel;
bsSkinDBText6: TbsSkinDBText;
bsSkinStdLabel6: TbsSkinStdLabel;
bsSkinStdLabel7: TbsSkinStdLabel;
bsSkinDBGrid5: TbsSkinDBGrid;
bsSkinScrollBar5: TbsSkinScrollBar;
bsSkinDBLookupComboBox3: TbsSkinDBLookupComboBox;
bsSkinCurrencyEdit2: TbsSkinCurrencyEdit;
bsSkinSpinEdit2: TbsSkinSpinEdit;
bsSkinButton13: TbsSkinButton;
bsSkinButton14: TbsSkinButton;
bsSkinTextLabel9: TbsSkinTextLabel;
bsSkinDBLookupComboBox4: TbsSkinDBLookupComboBox;
bsSkinButton15: TbsSkinButton;
bsSkinStdLabel8: TbsSkinStdLabel;
bsSkinEdit2: TbsSkinEdit;
bsSkinButton16: TbsSkinButton;
ADOTable5: TADOTable;
DataSource6: TDataSource;
ADOQuery3: TADOQuery;
DataSource7: TDataSource;
DataSource8: TDataSource;
ADOQuery4: TADOQuery;
bsSkinPanel7: TbsSkinPanel;
bsSkinGroupBox1: TbsSkinGroupBox;
bsSkinCheckRadioBox1: TbsSkinCheckRadioBox;
bsSkinCheckRadioBox2: TbsSkinCheckRadioBox;
bsSkinCheckRadioBox3: TbsSkinCheckRadioBox;
```

```
bsSkinCheckRadioBox4: TbsSkinCheckRadioBox;
bsSkinPanel8: TbsSkinPanel;
bsSkinDateEdit1: TbsSkinDateEdit;
bsSkinDateEdit2: TbsSkinDateEdit;
bsSkinStdLabel9: TbsSkinStdLabel;
bsSkinStdLabel10: TbsSkinStdLabel;
bsSkinButton17: TbsSkinButton;
bsSkinDBLookupComboBox5: TbsSkinDBLookupComboBox;
bsSkinStdLabel11: TbsSkinStdLabel;
bsSkinStdLabel12: TbsSkinStdLabel;
bsSkinDBLookupComboBox6: TbsSkinDBLookupComboBox;
ADOQuery5: TADOQuery;
DataSource9: TDataSource;
bsSkinDBGrid6: TbsSkinDBGrid;
bsSkinStdLabel13: TbsSkinStdLabel;
frxReport1: TfrxReport;
frxDBDataset1: TfrxDBDataset;
bsSkinButton18: TbsSkinButton;
frxReport2: TfrxReport;
bsSkinGroupBox2: TbsSkinGroupBox;
bsSkinCheckRadioBox5: TbsSkinCheckRadioBox;
bsSkinCheckRadioBox6: TbsSkinCheckRadioBox;
bsSkinCheckRadioBox7: TbsSkinCheckRadioBox;
bsSkinCheckRadioBox8: TbsSkinCheckRadioBox;
bsSkinButton19: TbsSkinButton;
bsSkinButton8: TbsSkinButton;
bsSkinButton9: TbsSkinButton;
swf1: TShockwaveFlash;
bsSkinPanel9: TbsSkinPanel;
bsSkinTextLabel10: TbsSkinTextLabel;
procedure bsSkinSpeedButton1Click(Sender: TObject);
```

```
procedure bsSkinSpeedButton2Click(Sender: TObject);
procedure bsSkinButton1Click(Sender: TObject);
procedure bsSkinButton2Click(Sender: TObject);
procedure bsSkinButton3Click(Sender: TObject);
procedure FormCreate(Sender: TObject);
procedure bsSkinButton9Click(Sender: TObject);
procedure allinv;
procedure bsSkinButton10Click(Sender: TObject);
procedure bsSkinButton6Click(Sender: TObject);
procedure ADOTable3AfterPost(DataSet: TDataSet);
procedure DataSource3DataChange(Sender: TObject; Field: TField);
procedure bsSkinButton5Click(Sender: TObject);
procedure bsSkinButton11Click(Sender: TObject);
procedure bsSkinButton12Click(Sender: TObject);
procedure bsSkinButton4Click(Sender: TObject);
procedure bsSkinEdit2Change(Sender: TObject);
procedure bsSkinButton16Click(Sender: TObject);
procedure bsSkinButton15Click(Sender: TObject);
procedure bsSkinButton13Click(Sender: TObject);
procedure ADOTable4AfterPost(DataSet: TDataSet);
procedure ADOQuery3AfterOpen(DataSet: TDataSet);
procedure ADOQuery4AfterOpen(DataSet: TDataSet);
procedure bsSkinButton14Click(Sender: TObject);
procedure ADOTable5AfterPost(DataSet: TDataSet);
procedure bsSkinButton7Click(Sender: TObject);
procedure bsSkinCheckRadioBox3Click(Sender: TObject);
procedure bsSkinButton17Click(Sender: TObject);
procedure bsSkinCheckRadioBox4Click(Sender: TObject);
procedure bsSkinCheckRadioBox1Click(Sender: TObject);
procedure bsSkinCheckRadioBox2Click(Sender: TObject);
procedure bsSkinButton18Click(Sender: TObject);
```

```
procedure bsSkinCheckRadioButton5Click(Sender: TObject);
procedure bsSkinCheckRadioButton8Click(Sender: TObject);
procedure bsSkinCheckRadioButton6Click(Sender: TObject);
procedure bsSkinCheckRadioButton7Click(Sender: TObject);
procedure bsSkinButton19Click(Sender: TObject);
procedure bsSkinButton8Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;

var
  Form1: TForm1;

implementation
var
  tmpstr:string;
  {$R *.dfm}

procedure TForm1.bsSkinSpeedButton1Click(Sender: TObject);
begin
  close;
end;

procedure TForm1.bsSkinSpeedButton2Click(Sender: TObject);
begin
  application.Minimize;
end;

procedure TForm1.bsSkinButton1Click(Sender: TObject);
```

```
begin
application.Minimize;
end;

procedure TForm1.bsSkinButton2Click(Sender: TObject);
begin
if bsskinmessage1.MessageDlg('Are you sure',mtconfirmation,[mbyes,mbno],0)=mryes
then
application.Terminate;
end;

procedure TForm1.bsSkinButton3Click(Sender: TObject);
begin
if(bsskinedit1.Text="") and (bsskinmaskededit1.Text="") then begin
bsskinpanel1.Enabled:=true;
bsskinstdlabel3.Caption:='Login Successful ! Now You Can Use Menu For Processes';
end
else begin
bsskinmessage1.MessageDlg('Invalid Username Or Password !',mterror,[mbok],0);
end;
end;

procedure TForm1.FormCreate(Sender: TObject);
begin
TmpStr:=ExtractFileDir(ParamStr(0));
if TmpStr[Length(TmpStr)]<> '\' Then TmpStr:=TmpStr+'\';
swf1.Movie:=tmpstr+'clock.swf';
swf1.Play;
bsskintextlabel10.Lines.Clear;
bsskintextlabel10.Lines.LoadFromFile(tmpstr+'programmer.txt');
adoconnection1.Connected:=false;
```

```
adoconnection1.ConnectionString:='Provider=Microsoft.Jet.OLEDB.4.0;Data
Source='+tmpstr+'db.mdb;Persist Security Info=False';
adoconnection1.Connected:=true;
adotable1.Active:=true;
bsskindgrid1.Columns[0].Visible:=false;
bsskindgrid1.Columns[4].Visible:=false;
bsskindgrid1.Columns[5].Visible:=false;
bsskindgrid1.Columns[6].Visible:=false;
adotable2.Active:=true;
bsskindgrid2.Columns[0].Visible:=false;
bsskindgrid2.Columns[3].Visible:=false;
bsskindgrid2.Columns[4].Visible:=false;
adotable3.Active:=true;
adotable4.Active:=true;
adotable5.Active:=true;
adoquery3.Open;
adoquery4.Open;
end;
```

```
procedure TForm1.bsSkinButton9Click(Sender: TObject);
begin
if bsskinmessage1.MessageDlg('Are you sure',mtconfirmation,[mbyes,mbno],0)=mryes
then
application.Terminate;
end;
```

```
procedure TForm1.allinv;
begin
Form1.bsskinpanel2.Visible:=false;
Form1.bsskinpanel3.Visible:=false;
Form1.bsskinpanel4.Visible:=false;
```

```
Form1.bsskinpanel5.Visible:=false;
Form1.bsskinpanel6.Visible:=false;
Form1.bsskinpanel7.Visible:=false;
Form1.bsskinpanel9.Visible:=false;
end;

procedure TForm1.bsSkinButton10Click(Sender: TObject);
begin
  allinv;
  bsskinstdlabel3.Caption:='Suppliers';
  bsskinpanel3.Visible:=true;
end;

procedure TForm1.bsSkinButton6Click(Sender: TObject);
begin
  allinv;
  bsskinstdlabel3.Caption:='Stocks';
  bsskinpanel4.Visible:=true;
end;

procedure TForm1.ADOTable3AfterPost(DataSet: TDataSet);
begin
  with adoquery1 do begin
    close;
    sql.Clear;
    sql.Add('select * from Stocks where
Product_ID='+adotable3.FieldName('Product_ID').AsString);
    open;
  end;
  if adoquery1.RecordCount=0 then begin
    adoquery1.Append;
```

```
adoquery1.FieldByName('Product_ID').AsString:=adotable3.FieldByName('Product_ID').  
AsString;  
adoquery1.FieldByName('Quantity').AsInteger:=0;  
adoquery1.Post;  
end;  
end;  
  
procedure TForm1.DataSource3DataChange(Sender: TObject; Field: TField);  
begin  
if bsskindbtext3.Caption<>" then  
with adoquery1 do begin  
close;  
sql.Clear;  
sql.Add('select * from Stocks where  
Product_ID='+adotable3.FieldByName('Product_ID').AsString);  
open;  
end;  
end;  
  
procedure TForm1.bsSkinButton5Click(Sender: TObject);  
begin  
allinv;  
bsskinstdlabel3.Caption:='Purchase';  
bsskinpanel5.Visible:=true;  
end;  
  
procedure TForm1.bsSkinButton11Click(Sender: TObject);  
var  
a,b:integer;  
begin  
with adoquery2 do begin
```

```

close;
sql.Clear;
sql.Add('Select * from Stocks where
Product_ID=' + adotable3.fieldbyname('Product_ID').AsString);
open;
end;
a:=adoquery2.FieldByName('Quantity').AsInteger;
with adotable4 do begin
append;
fieldbyname('Product_ID').AsString:=adotable3.fieldbyname('Product_ID').AsString;
fieldbyname('Quantity').AsString:=bsskinspinedit1.Text;
fieldbyname('Unit_Price').AsString:=floattostr(bsskinurrencyedit1.value);
fieldbyname('Total_Price').AsString:=floattostr(bsskinurrencyedit1.value*bsskinspinedit1
.Value);
fieldbyname('Purchase_Date').AsDateTime:=now;
post;
end;
b:=a+strtoint(bsskinspinedit1.text);
adoquery2.Edit;
adoquery2.FieldByName('Quantity').AsInteger:=b;
adoquery2.Post;
bsskinmessage1.MessageDlg('Purchase Complete !',mtconfirmation,[mbok],0);
end;

procedure TForm1.bsSkinButton12Click(Sender: TObject);
var
a,b:integer;
begin
with adoquery2 do begin
close;
sql.Clear;

```

```
sql.Add('Select * from Stocks where  
Product_ID='+adoquery3.fieldbyname('Product_ID').AsString);  
open;  
end;  
a:=adoquery2.FieldByName('Quantity').AsInteger;  
b:=a-adoquery3.fieldbyname('Quantity').AsInteger;  
adoquery2.Edit;  
adoquery2.FieldByName('Quantity').AsInteger:=b;  
adoquery2.Post;  
bsskinmessage1.MessageDlg('Cancel Complete !',mtconfirmation,[mbok],0);  
adotable4.Locate('Product_ID;Purchase_Date',vararrayof([adoquery3.fieldbyname('Produc  
t_ID').AsString,adoquery3.fieldbyname('Purchase_Date').AsString]),[lopartialkey]);  
adotable4.Delete;  
adoquery3.Close;  
adoquery3.Open;  
end;
```

```
procedure TForm1.bsSkinButton4Click(Sender: TObject);  
begin  
allinv;  
bsskinstdlabel3.Caption:='Sale';  
bsskinpanel6.Visible:=true;  
end;
```

```
procedure TForm1.bsSkinEdit2Change(Sender: TObject);  
var  
a,b,c,d,e,f:string;  
begin  
if bsskinedit2.Text<>" then begin  
a='Contact_Name like ';  
b=' Contact_Name like ';
```

```
c:=' Contact_Surname like ';
d:=' GSM like ';
e:=' Business_Phone like ';
f:='%'+bsskinedit2.Text+'%';
adotable1.Filtered:=false;
adotable1.Filter:=a+#39+f+#39+ or ' +b+#39+f+#39+ or '+c+#39+f+#39+ or
'+d+#39+f+#39+ or '+e+#39+f+#39;
adotable1.Filtered:=true;
end
else
adotable1.Filtered:=false;
end;
```

```
procedure TForm1.bsSkinButton16Click(Sender: TObject);
begin
allinv;
bsskinstdlabel3.Caption:='Sale';
bsskinpanel6.Visible:=true;
end;
```

```
procedure TForm1.bsSkinButton15Click(Sender: TObject);
begin
allinv;
bsskinstdlabel3.Caption:='Customers';
bsskinpanel2.Visible:=true;
end;
```

```
procedure TForm1.bsSkinButton13Click(Sender: TObject);
var
a,b:integer;
begin
```

```
with adoquery2 do begin
close;
sql.Clear;
sql.Add('Select * from Stocks where
Product_ID='+adotable3.fieldbyname('Product_ID').AsString);
open;
end;
a:=adoquery2.FieldByName('Quantity').AsInteger;
b:=a-strtoint(bsskinspinedit2.text);
if b>=0 then begin
with adotable5 do begin
append;
fieldbyname('Product_ID').AsString:=adotable3.fieldbyname('Product_ID').AsString;
fieldbyname('Customer_ID').AsString:=adotable1.fieldbyname('Customer_ID').AsString;
fieldbyname('Quantity').AsString:=bsskinspinedit2.Text;
fieldbyname('Unit_Price').AsString:=floattostr(bsskinurrencyedit2.value);
fieldbyname('Total_Price').AsString:=floattostr(bsskinurrencyedit2.value*bsskinspinedit2
.Value);
fieldbyname('Sale_Date').AsDateTime:=now;
post;
end;
adoquery2.Edit;
adoquery2.FieldByName('Quantity').AsInteger:=b;
adoquery2.Post;
bsskinmessage1.MessageDlg('Sale Complete !',mtconfirmation,[mbok],0);
end
else
bsskinmessage1.MessageDlg('You have not enought stock',mtwarning,[mbok],0);
end;
```

```
procedure TForm1.ADOTable4AfterPost(DataSet: TDataSet);
begin
  adoquery3.Close;
  adoquery3.Open;
end;
```

```
procedure TForm1.ADOQuery3AfterOpen(DataSet: TDataSet);
begin
  bsskindbgrid4.Columns[0].Visible:=false;
  bsskindbgrid4.Columns[1].Width:=100;
  bsskindbgrid4.Columns[2].Width:=100;
  bsskindbgrid4.Columns[3].Width:=60;
  bsskindbgrid4.Columns[4].Width:=70;
  bsskindbgrid4.Columns[5].Width:=70;
end;
```

```
procedure TForm1.ADOQuery4AfterOpen(DataSet: TDataSet);
begin
  bsskindbgrid5.Columns[0].Visible:=false;
  bsskindbgrid5.Columns[1].Width:=100;
  bsskindbgrid5.Columns[2].Width:=100;
  bsskindbgrid5.Columns[3].Width:=60;
  bsskindbgrid5.Columns[4].Width:=70;
  bsskindbgrid5.Columns[5].Width:=70;
end;
```

```
procedure TForm1.bsSkinButton14Click(Sender: TObject);
var
  a,b:integer;
begin
  with adoquery2 do begin
```

```
close;
sql.Clear;
sql.Add('Select * from Stocks where
Product_ID='+adoquery4.fieldbyname('Product_ID').AsString);
open;
end;
a:=adoquery2.FieldByName('Quantity').AsInteger;
b:=a+adoquery4.fieldbyname('Quantity').AsInteger;
adoquery2.Edit;
adoquery2.FieldByName('Quantity').AsInteger:=b;
adoquery2.Post;
bsskinmessage1.MessageDlg('Cancel Complete !',mtconfirmation,[mbok],0);
adotable5.Locate('Product_ID;Sale_Date',vararrayof([adoquery4.fieldbyname('Product_ID')
).AsString,adoquery4.fieldbyname('Sale_Date').AsString]),[lopartialkey]);
adotable5.Delete;
adoquery4.Close;
adoquery4.Open;

end;

procedure TForm1.ADOTable5AfterPost(DataSet: TDataSet);
begin
adoquery4.Close;
adoquery4.Open;
end;

procedure TForm1.bsSkinButton7Click(Sender: TObject);
begin
allinv;
bsskinstdlabel3.Caption:='Reports';
bsskinpanel7.Visible:=true;
```

```
end;

procedure TForm1.bsSkinCheckBox3Click(Sender: TObject);
begin
if bsskincheckbox3.Checked=true then begin
bsskinstdlabel11.Visible:=true;
bsskindlookupcombobox5.Visible:=true;
bsskinstdlabel12.Visible:=false;
bsskindlookupcombobox6.Visible:=false;
end
else begin
bsskinstdlabel11.Visible:=false;
bsskindlookupcombobox5.Visible:=false;
end;
end;

procedure TForm1.bsSkinButton17Click(Sender: TObject);
var
tar1,tar2:string;
begin
if bsskincheckbox1.Checked=true then
begin
tar1:=formatdatetime('dd-mm-yyyy',bsskindateedit1.Date);
tar2:=formatdatetime('dd-mm-yyyy',bsskindateedit2.Date);
with adoquery5 do begin
close;
sql.Clear;
sql.Add('SELECT Products.Product_ID, Products.Product_Name,
Suppliers.Company_Name, Purchase.Quantity, Purchase.Unit_Price, Purchase.Total_Price,
Purchase.Purchase_Date');

```

```

sql.Add('FROM (Suppliers INNER JOIN Products ON Suppliers.[Supplier_ID] =
Products.[Supplier_ID]) INNER JOIN Purchase ON Products.[Product_ID] =
Purchase.[Product_ID]');
sql.Add('where Purchase.Purchase_Date between #' + tar1 + '#' and #' + tar2 + '#');
sql.Add('Order By Purchase.Purchase_Date DESC');

open;
end;
end;

if bsskincheckradiobox2.Checked=true then
begin
tar1:=formatdatetime('dd-mm-yyyy',bsskindateedit1.Date);
tar2:=formatdatetime('dd-mm-yyyy',bsskindateedit2.Date);
with adoquery5 do begin
close;
sql.Clear;
sql.Add('SELECT Products.Product_ID, Products.Product_Name,
customers.Company_Name, Sale.Quantity, Sale.Unit_Price, Sale.Total_Price,
Sale.Sale_Date');
sql.Add('FROM Products INNER JOIN (customers INNER JOIN Sale ON
customers.[Customer_ID] = Sale.[Customer_ID]) ON Products.[Product_ID] =
Sale.[Product_ID]');
sql.Add('Where Sale.Sale_Date between #' + tar1 + '#' and #' + tar2 + '#');
sql.Add('Order By Sale.Sale_Date DESC');

open;
end;
end;

if bsskincheckradiobox4.Checked=true then
begin
tar1:=formatdatetime('dd-mm-yyyy',bsskindateedit1.Date);
tar2:=formatdatetime('dd-mm-yyyy',bsskindateedit2.Date);
with adoquery5 do begin

```

```

close;
sql.Clear;
sql.Add('SELECT Products.Product_ID, Products.Product_Name,
Suppliers.Company_Name, Purchase.Quantity, Purchase.Unit_Price, Purchase.Total_Price,
Purchase.Purchase_Date');
sql.Add('FROM (Suppliers INNER JOIN Products ON Suppliers.[Supplier_ID] =
Products.[Supplier_ID]) INNER JOIN Purchase ON Products.[Product_ID] =
Purchase.[Product_ID]');
sql.Add('where Suppliers.Company_Name=' + bsskindblookupcombobox6.Text + ' and
(Purchase.Purchase_Date between #' + tar1 + '#' and #' + tar2 + '#)');
sql.Add('Order By Purchase.Purchase_Date DESC');

open;
end;
end;

if bsskincheckradiobox3.Checked=true then begin
tar1:=formatdatetime('dd-mm-yyyy',bsskindateedit1.Date);
tar2:=formatdatetime('dd-mm-yyyy',bsskindateedit2.Date);
with adoquery5 do begin
close;
sql.Clear;
sql.Add('SELECT Products.Product_ID, Products.Product_Name,
customers.Company_Name, Sale.Quantity, Sale.Unit_Price, Sale.Total_Price,
Sale.Sale_Date');
sql.Add('FROM Products INNER JOIN (customers INNER JOIN Sale ON
customers.[Customer_ID] = Sale.[Customer_ID]) ON Products.[Product_ID] =
Sale.[Product_ID]');
sql.Add('Where
customers.Company_Name=' + bsskindblookupcombobox5.Text + ' and
(Sale.Sale_Date between #' + tar1 + '#' and #' + tar2 + '#)');
sql.Add('Order By Sale.Sale_Date DESC');
open;

```

```
end; end;
end;
end;

procedure TForm1.bsSkinCheckBox4Click(Sender: TObject);
begin
if bsskincheckbox4.Checked=true then begin
bsskinstdlabel12.Visible:=true;
bsskindlookupcombobox6.Visible:=true;
bsskinstdlabel11.Visible:=false;
bsskindlookupcombobox5.Visible:=false;
end
else begin
bsskinstdlabel12.Visible:=false;
bsskindlookupcombobox6.Visible:=false;
end;
end;

procedure TForm1.bsSkinCheckBox1Click(Sender: TObject);
begin
bsskinstdlabel12.Visible:=false;
bsskindlookupcombobox6.Visible:=false;
bsskinstdlabel11.Visible:=false;
bsskindlookupcombobox5.Visible:=false;
end;

procedure TForm1.bsSkinCheckBox2Click(Sender: TObject);
begin
bsskinstdlabel12.Visible:=false;
bsskindlookupcombobox6.Visible:=false;
bsskinstdlabel11.Visible:=false;
```

```
bsskindblookupcombobox5.Visible:=false;  
end;  
  
procedure TForm1.bsSkinButton18Click(Sender: TObject);  
begin  
if (bsskincheckboxradio1.Checked=true) or (bsskincheckboxradio4.Checked=true) then  
frxreport1.ShowReport;  
if (bsskincheckboxradio2.Checked=true) or (bsskincheckboxradio3.Checked=true) then  
frxreport2.ShowReport;  
end;  
  
procedure TForm1.bsSkinCheckRadioBox5Click(Sender: TObject);  
begin  
with adoquery5 do begin  
close;  
sql.Clear;  
sql.Add('SELECT * From Customers');  
open;  
end;  
end;  
  
procedure TForm1.bsSkinCheckRadioBox8Click(Sender: TObject);  
begin  
with adoquery5 do begin  
close;  
sql.Clear;  
sql.Add('SELECT * From Suppliers');  
open;  
end;  
end;
```

```
procedure TForm1.bsSkinCheckRadioBox6Click(Sender: TObject);
begin
  with adoquery5 do begin
    close;
    sql.Clear;
    sql.Add('SELECT * From Products INNER JOIN Stocks ON
(Products.Product_ID=Stocks.Product_ID)');
    open;
  end;
end;
```

```
procedure TForm1.bsSkinCheckRadioBox7Click(Sender: TObject);
begin
  with adoquery5 do begin
    close;
    sql.Clear;
    sql.Add('SELECT * From Products INNER JOIN Suppliers on
(Products.Supplier_ID=Suppliers.Supplier_ID)');
    open;
  end;
end;
```

```
procedure TForm1.bsSkinButton19Click(Sender: TObject);
begin
  allinv;
  bsskinstdlabel3.Caption:='Suppliers';
  bsskinpanel3.Visible:=true;
end;
```

```
procedure TForm1.bsSkinButton8Click(Sender: TObject);
begin
```

```
allinv;  
bsskinstdlabel3.Caption:='Reports';  
bsskinpanel9.Visible:=true;  
end;  
  
end.
```

## **REFERENCES**

### **BOOKS**

- Financial Management : Theory and Practice with Thomson ONE (Harcourt College Publishers Series in Finance) by Eugene F. Brigham
- Financial Accounting : Tools for Business Decision Making by Paul D. Kimmel
- Structured Design: Fundamentals of a Discipline of Computer Program and Systems Design by Edward Yourdon
- Mastering Delphi 7 by Marco Cantù

### **WEBSITES**

[www.delphiturk.com](http://www.delphiturk.com)

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