

DIGITAL ASSIGNMENT  
JAVA PROGRAMMING (CSE 1007)  
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Developing an application for retail shop to maintain stocks as well as for billing purposes.

Stocks and billing are connected through a database.

As the commodity gets sold, it is subtracted from, database.

Corresponding java code for the application:

```
import javafx.application.Application;
import javafx.event.ActionEvent;
import javafx.geometry.*;
import javafx.event.EventHandler;
import javafx.scene.Scene;
import javafx.scene.layout.*;
import javafx.geometry.Insets;
import javax.swing.JOptionPane;
import javafx.scene.control.TextField;
import javafx.scene.control.TextArea;
import javafx.scene.control.Button;
```

```
import javafx.scene.effect.Light;
import javafx.scene.effect.Lighting;
import javafx.scene.paint.Color;
import javafx.scene.shape.Rectangle;
import javafx.stage.Stage;
import javafx.scene.text.Font;
import javafx.scene.text.FontWeight;
import javafx.scene.text.Text;
import javafx.scene.layout.GridPane;
import java.sql.*;

public class e_mart extends Application{

    public static int objp=0;

    @Override
    public void start(Stage primaryStage) throws Exception {

        // TODO Auto-generated method stub

        GridPane root1=new GridPane();
        GridPane root2=new GridPane();
        GridPane sell=new GridPane();
        GridPane stock=new GridPane();
        GridPane bill=new GridPane();

        Scene scene1=new Scene(root1,3000,990);
        Scene scene2=new Scene(root2,3000,990);
        Scene scene3=new Scene(sell,3000,990);
        Scene scene4=new Scene(stock,3000,990);
```

```
Scene scene5=new Scene(bill,3000,990);  
Text t1= new Text();  
t1.setFont(Font.font("Comic Sans MS", FontWeight.BOLD, 35));  
t1.setTextOrigin(VPos.TOP);  
t1.setText("WELCOME TO E-MART");  
t1.setFill(Color.RED);  
Text t2=new Text();  
t2.setText("FOR SELLING PORTAL:");  
t2.setFill(Color.GREEN);  
t2.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,25));  
Text t3=new Text();  
t3.setText("FOR UPDATING STOCKS:");  
t3.setFill(Color.GREEN);  
t3.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,25));  
Text t4=new Text();  
t4.setText("E-MART SELLING COUNTER");  
t4.setFill(Color.RED);  
t4.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,25));  
Text t5=new Text();  
t5.setText("OBJECT NAME");  
t5.setFill(Color.BLACK);  
t5.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,17));  
Text t6=new Text();  
t6.setText("OBJECT PRICE");
```

```
t6.setFill(Color.BLACK);
t6.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,17));
Text t7=new Text();
t7.setText("QUANTITY");
t7.setFill(Color.BLACK);
t7.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,17));
Text t8=new Text();
t8.setText("E-MART FINAL BILLING");
t8.setFill(Color.RED);
t8.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,25));
Text t9=new Text();
t9.setText("TOTAL PAYABLE AMOUNT");
t9.setFill(Color.BLACK);
t9.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,17));
Text t10= new Text();
t10.setText("MENU");
t10.setFill(Color.RED);
t10.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,35));
Text t11= new Text();
t11.setText("STOCKS");
t11.setFill(Color.RED);
t11.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,35));
Text t12=new Text();
t12.setText("OBJECT NAME");
```

```
t12.setFill(Color.BLACK);
t12.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,17));
Text t13=new Text();
t13.setText("ADD QUANTITY");
t13.setFill(Color.BLACK);
t13.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,17));
TextField tf1=new TextField();
tf1.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,15));
TextField tf2=new TextField();
tf2.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,15));
TextField tf3=new TextField();
tf3.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,15));
TextField tf4=new TextField();
tf4.setEditable(false);
TextField tf5=new TextField();
tf5.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,15));
TextField tf6=new TextField();
tf6.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,15));
tf1.setStyle("-fx-text-fill: green");
tf2.setStyle("-fx-text-fill: green");
tf3.setStyle("-fx-text-fill: green");
tf4.setStyle("-fx-text-fill: red");
tf5.setStyle("-fx-text-fill: green");
tf6.setStyle("-fx-text-fill: green");
```

```
TextArea ta1=new TextArea();
ta1.setEditable(false);
ta1.setStyle("-fx-text-fill: red");
ta1.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,16));
TextArea ta2=new TextArea();
ta2.setEditable(false);
ta2.setStyle("-fx-text-fill: red");
ta2.setFont(Font.font("Comic Sans MS",FontWeight.BOLD,16));
Light.Spot light = new Light.Spot();
light.setPointsAtX(0);
light.setPointsAtY(0);
light.setPointsAtZ(-50);
light.setSpecularExponent(5);
Lighting lighting = new Lighting();
t1.setEffect(lighting);t2.setEffect(lighting);
t3.setEffect(lighting);t4.setEffect(lighting);

t8.setEffect(lighting);t10.setEffect(lighting);t11.setEffect(lighting);
Button btn1=new Button("LOGIN FOR E-MART STAFF ONLY");
Button btn2=new Button("SELLING PORTAL");
Button btn3=new Button("UPDATING STOCKS");
Button back1=new Button("BACK");
Button back2=new Button("BACK");
Button enter=new Button("ENTER");
```

```

Button close1=new Button("EXIT");
Button bb=new Button("BILL REVIEW");
Button paid=new Button("PAID");
Button print=new Button("PRINT INVOICE");
Button update=new Button("UPDATE");
Button add=new Button("ADD NEW OBJECT");
Button close2=new Button("EXIT");
btn1.setMaxSize(1000,2);
close1.setStyle("-fx-border-color: #000000; -fx-border-width:
2px;-fx-background-color: #ff0000");
close2.setStyle("-fx-border-color: #000000; -fx-border-width:
2px;-fx-background-color: #ff0000");
btn1.setOnAction(new EventHandler<ActionEvent>() {

@Override
public void handle(ActionEvent arg0) {int i=0;
while(i<3){
i++;

String input = JOptionPane.showInputDialog(null,"ENTER
PASSWORD: ","SECURED
ENTRY",JOptionPane.INFORMATION_MESSAGE);
if(input.equals("19BEE0214"))
{
primaryStage.setScene(scene2);
break;
}
}
}

```

```

    }
    else{
        JOptionPane.showMessageDialog(null, "WRONG
PASSWORD....TRY AGAIN "+(3-i)+" CHANCES LEFT", "OOPS",
JOptionPane.ERROR_MESSAGE);
    }
    if(i==3){System.exit(0);}
}

}
});
btn2.setOnAction(new EventHandler<ActionEvent>() {

```

```

    @Override
    public void handle(ActionEvent arg0) {
        primaryStage.setScene(scene3);
    }
});
btn3.setOnAction(new EventHandler<ActionEvent>() {

```

```

    @Override
    public void handle(ActionEvent arg0) {
        primaryStage.setScene(scene4);
        try

```



```

    {
        ta2.appendText("CURRENT STOCK\n");
        Class.forName( "com.mysql.cj.jdbc.Driver" );
        String
url="jdbc:mysql://localhost:3306/e_mart?verifyServerCertificate=false&useSSL=true";
        Connection conn =
DriverManager.getConnection(url,"root","1605409") ;
        Statement stmt = conn.createStatement() ;
        ResultSet rs = stmt.executeQuery( "SELECT * FROM stocks
;" ) ;

        while( rs.next())
            ta2.appendText(
"\n"+rs.getString(1)+"\t\t"+rs.getString(2)) ;
            rs.close() ;
            stmt.close() ;
            conn.close() ;
    }
    catch( Exception e )
    {
        System.out.println(e) ;
    }
}

});

back1.setOnAction(new EventHandler<ActionEvent>() {

```

```
@Override  
public void handle(ActionEvent arg0) {  
    tf1.setText(null);tf2.setText(null);ta1.setText(null);objp=0;  
    primaryStage.setScene(scene2);  
}  
});  
back2.setOnAction(new EventHandler<ActionEvent>() {
```

```
@Override  
public void handle(ActionEvent arg0) {  
    primaryStage.setScene(scene2);  
}  
});  
close1.setOnAction(new EventHandler<ActionEvent>() {
```

```
@Override  
public void handle(ActionEvent arg0) {  
    System.exit(0);  
}  
});  
close2.setOnAction(new EventHandler<ActionEvent>() {
```

```
@Override
```

```

    public void handle(ActionEvent arg0) {
        System.exit(0);
    }
});
enter.setOnAction(new EventHandler<ActionEvent>() {

```

```

    @Override
    public void handle(ActionEvent arg0) {
        String objn=tf1.getText();
        int qt=Integer.parseInt(tf3.getText());
        int temp=Integer.parseInt(tf2.getText());
        objp+=(temp*qt);
        ta1.appendText(objn+"\t\t\t"+temp+"\t\t\t"+qt+"\n");
        tf1.setText(null);tf2.setText(null);tf3.setText(null);
        tf4.setText("\u20B9"+ " "+objp);
        try{
            Class.forName( "com.mysql.cj.jdbc.Driver" ) ;
            String
url="jdbc:mysql://localhost:3306/e_mart?verifyServerCertificate=false&useSSL=true";
            Connection conn =
DriverManager.getConnection(url,"root","1605409") ;
            Statement stmt = conn.createStatement() ;
            stmt.executeUpdate("update stocks set quant=(quant-
"+qt+" ) where name=\""+objn+"\";" ) ;

```

```

        stmt.close() ;
        conn.close() ;
    }
    catch( Exception e )
    {
        System.out.println(e) ;
    }
}
});
bb.setOnAction(new EventHandler<ActionEvent>() {

```

```

    @Override
    public void handle(ActionEvent arg0) {
        ta1.setText(null);
        primaryStage.setScene(scene5);
    }
});
paid.setOnAction(new EventHandler<ActionEvent>() {

```

```

    @Override
    public void handle(ActionEvent arg0) {
        String[] options = {"SELLING COUNTER", "MENU",};
        int x = JOptionPane.showOptionDialog(null, "CHOOSE
WHERE TO GO",

```

```

        "PAID SUCCESSFULLY!!",
        JOptionPane.DEFAULT_OPTION,
        JOptionPane.INFORMATION_MESSAGE, null, options, options[0]);
        if(x==0){primaryStage.setScene(scene3);}
        if(x==1){primaryStage.setScene(scene2);}
    }
});
print.setOnAction(new EventHandler<ActionEvent>() {

```

```

    @Override
    public void handle(ActionEvent arg0) {
        JOptionPane.showMessageDialog(null,"NO PRINTER
        CONNECTED","OOPS!!",JOptionPane.WARNING_MESSAGE);
    }
});
update.setOnAction(new EventHandler<ActionEvent>() {

```

```

    @Override
    public void handle(ActionEvent arg0) {
        String objn=tf5.getText();
        int qt=Integer.parseInt(tf6.getText());
        try{
            Class.forName( "com.mysql.cj.jdbc.Driver" ) ;

```

```

        String
url="jdbc:mysql://localhost:3306/e_mart?verifyServerCertificate=false&useSSL=true";

        Connection conn =
DriverManager.getConnection(url,"root","1605409") ;

        Statement stmt=conn.createStatement() ;

        stmt.executeUpdate("update stocks set
quant=(quant+"+qt+") where name=\""+objn+"\";" ) ;

        stmt.close() ;

        conn.close() ;

    }

    catch( Exception e )

    {

        System.out.println(e) ;

    }

    try

    {

        ta2.appendText("CURRENT STOCK\n");

        Class.forName( "com.mysql.cj.jdbc.Driver" ) ;

        String
url="jdbc:mysql://localhost:3306/e_mart?verifyServerCertificate=false&useSSL=true";

        Connection conn =
DriverManager.getConnection(url,"root","1605409") ;

        Statement stmt = conn.createStatement() ;

```

```

        ResultSet rs = stmt.executeQuery( "SELECT * FROM stocks
;" );

        while( rs.next())
            ta2.appendText(
"\n"+rs.getString(1)+"\t\t"+rs.getString(2)) ;

            rs.close() ;
            stmt.close() ;
            conn.close() ;
        }
        catch( Exception e )
        {
            System.out.println(e) ;
        }

        tf5.setText(null);tf6.setText(null);
    }
});

add.setOnAction(new EventHandler<ActionEvent>() {

    @Override
    public void handle(ActionEvent arg0) {
        String objn=tf5.getText();
        int qt=Integer.parseInt(tf6.getText());
        try{
            Class.forName( "com.mysql.cj.jdbc.Driver" ) ;

```

```

        String
url="jdbc:mysql://localhost:3306/e_mart?verifyServerCertificate=false&useSSL=true";

        Connection conn =
DriverManager.getConnection(url,"root","1605409") ;

        Statement stmt=conn.createStatement() ;

        stmt.executeUpdate("insert into stocks
values(\""+objn+"\", "+qt+" );" );

        stmt.close() ;

        conn.close() ;

    }

    catch( Exception e )

    {

        System.out.println(e) ;

    }

    try

    {

        ta2.appendText("CURRENT STOCK\n");

        Class.forName( "com.mysql.cj.jdbc.Driver" ) ;

        String
url="jdbc:mysql://localhost:3306/e_mart?verifyServerCertificate=false&useSSL=true";

        Connection conn =
DriverManager.getConnection(url,"root","1605409") ;

        Statement stmt = conn.createStatement() ;

```



```

        ResultSet rs = stmt.executeQuery( "SELECT * FROM stocks
;" );

        while( rs.next())

            ta2.appendText(
"\n"+rs.getString(1)+"\t\t"+rs.getString(2)) ;

            rs.close() ;

            stmt.close() ;

            conn.close() ;

        }

        catch( Exception e )

        {

            System.out.println(e) ;

        }

        tf5.setText(null);tf6.setText(null);

    }

});

root1.setPadding(new Insets(100, 00, 00,0));
root2.setPadding(new Insets(100, 00, 00,0));
sell.setPadding(new Insets(100, 00, 00,0));
bill.setPadding(new Insets(100, 00, 00,0));
stock.setPadding(new Insets(100, 00, 00,0));
root1.setHgap(50);
root1.setVgap(50);
root2.setHgap(50);

```

```
root2.setVgap(50);
sell.setHgap(50);
sell.setVgap(5);
bill.setHgap(50);
bill.setVgap(50);
stock.setHgap(50);
stock.setVgap(50);
root1.add(t1,15,0);
root1.add(btn1,15,7);
root1.add(close1,25,0);
root2.add(t2,9,3);
root2.add(t3,9,6);
root2.add(btn2,12,3);
root2.add(btn3,12,6);
root2.add(t10,12,0);
root2.add(close2,12,9);
sell.add(back1,13,0);
sell.add(t4,8,0);
sell.add(t5,3,25);
sell.add(t6,3,26);
sell.add(t7,3,27);
sell.add(tf1,5,25);
sell.add(tf2,5,26);
sell.add(tf3,5,27);
```

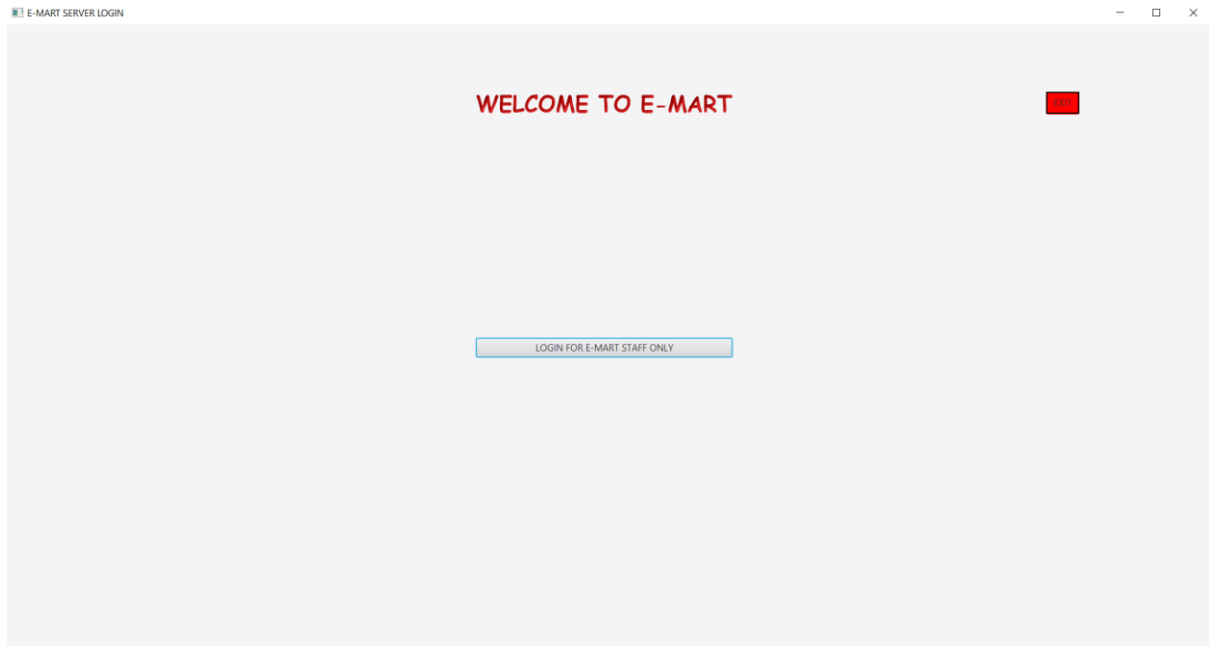
```
sell.add(ta1,8,26);
sell.add(enter,4,42);
sell.add(bb,10,42);
bill.add(t8,8,0);
bill.add(t9,3,3);
bill.add(tf4,6,3);
bill.add(paid,8,8);
bill.add(print,9,8);
stock.add(back2,13,0);
stock.add(t11,10,0);
stock.add(t12,5,3);
stock.add(t13,5,4);
stock.add(tf5,6,3);
stock.add(tf6,6,4);
stock.add(update,9,3);
stock.add(add,9,4);
stock.add(ta2,10,3);
primaryStage.setTitle("E-MART SERVER LOGIN");
primaryStage.setScene(scene1);
primaryStage.show();
}

public static void main (String args[])
{
    launch(args);
}
```

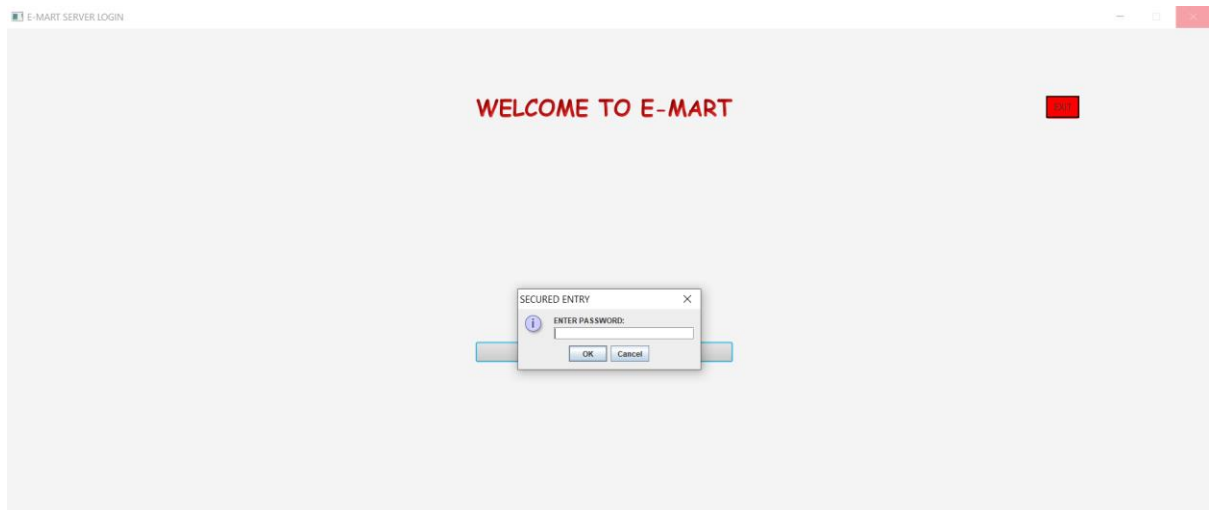
}

}

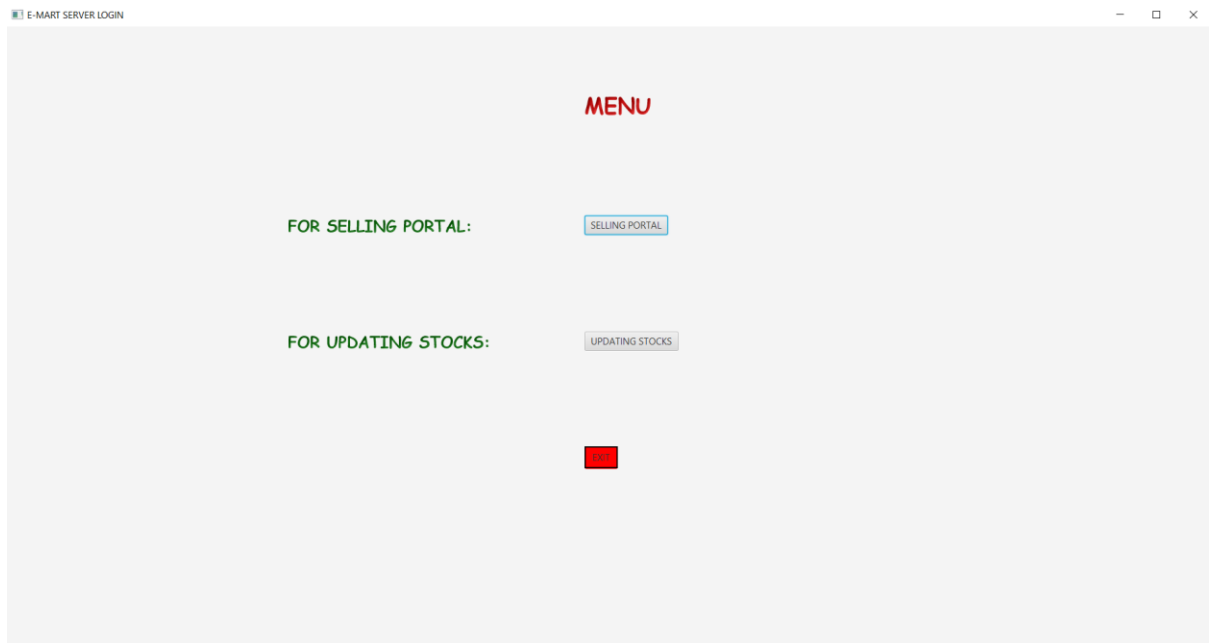
## OUTPUT WINDOWS:



You can press exit to exit or the button to login

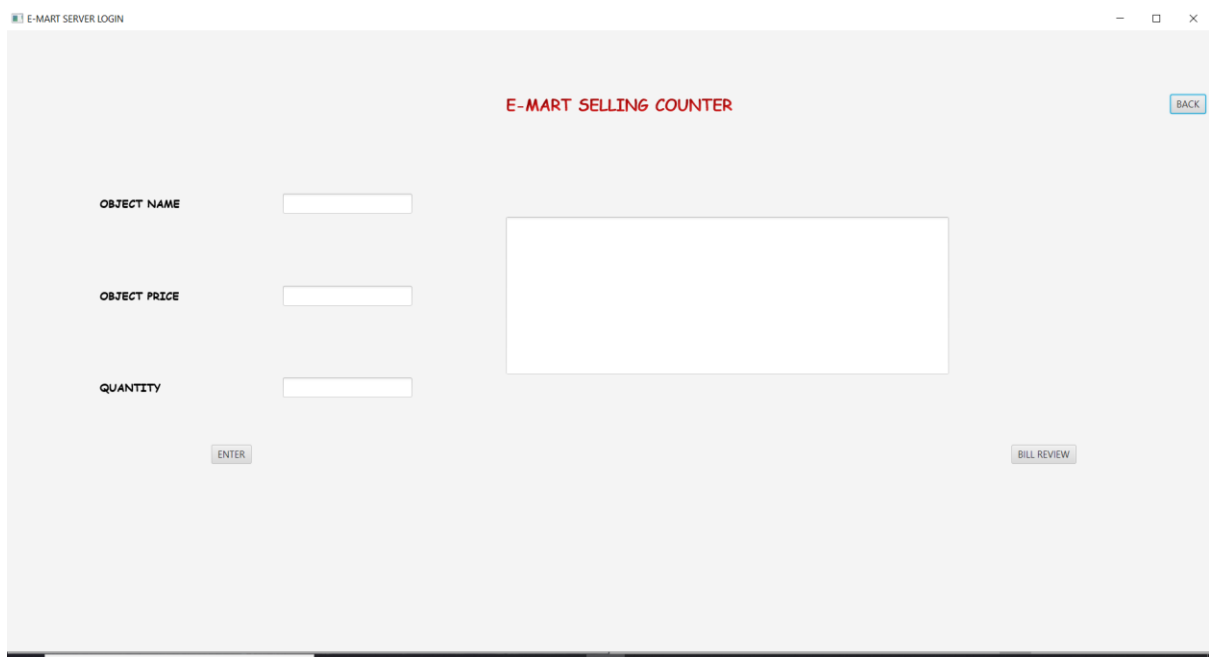


Password is 19BEE0214



You can either click selling portal or updating stocks.

On clicking selling portal :



## On filling values

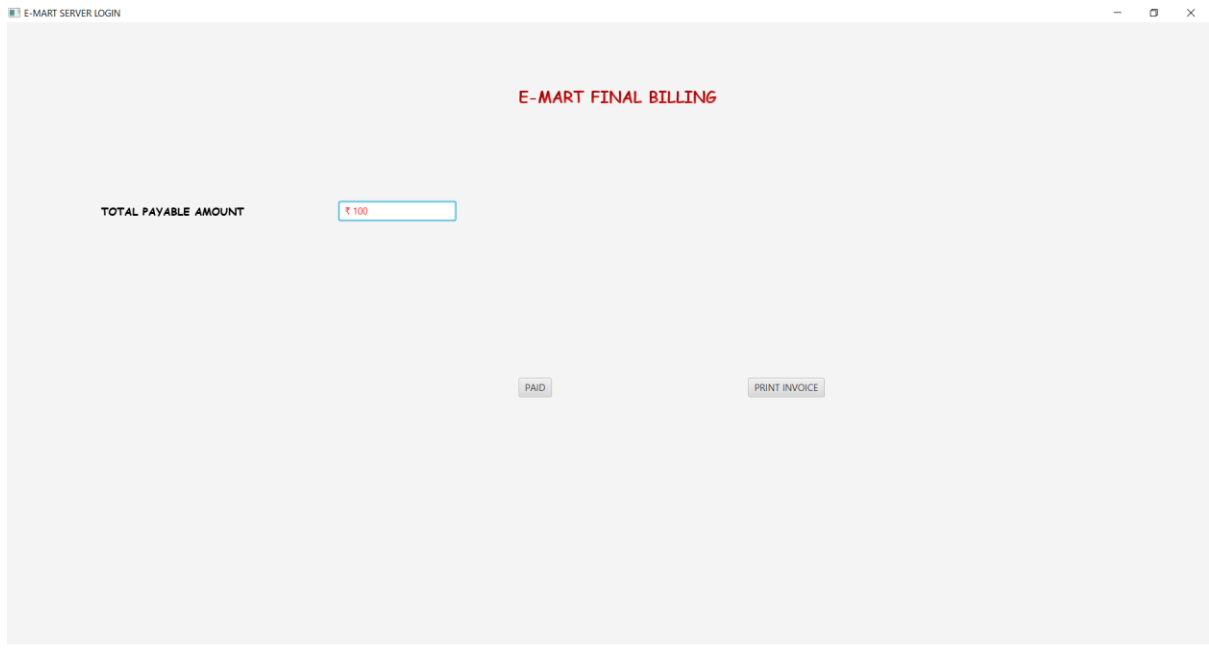
The screenshot shows a web application window titled "E-MART SERVER LOGIN". The main heading is "E-MART SELLING COUNTER". On the right, there is a "BACK" button. The form contains three input fields: "OBJECT NAME" with the value "Ball pen", "OBJECT PRICE" with the value "20", and "QUANTITY" with the value "5". Below the "QUANTITY" field is an "ENTER" button. To the right of the input fields is a large empty rectangular box. At the bottom right, there is a "BILL REVIEW" button.

## Now pressing enter:

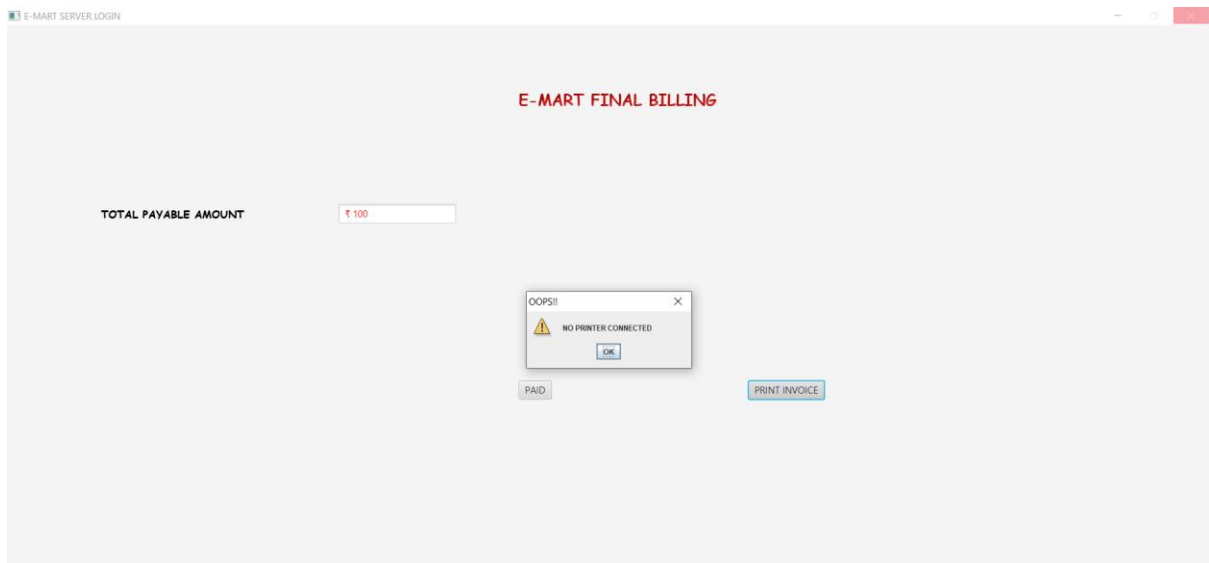
The screenshot shows the same web application window after the "ENTER" button was pressed. The "OBJECT NAME", "OBJECT PRICE", and "QUANTITY" input fields are now empty. The large rectangular box on the right now displays the entered values in red text: "Ball pen", "20", and "5". The "ENTER" button is now highlighted in blue. The "BACK" and "BILL REVIEW" buttons remain in their original positions.

Multiple comodities can be added similarly.

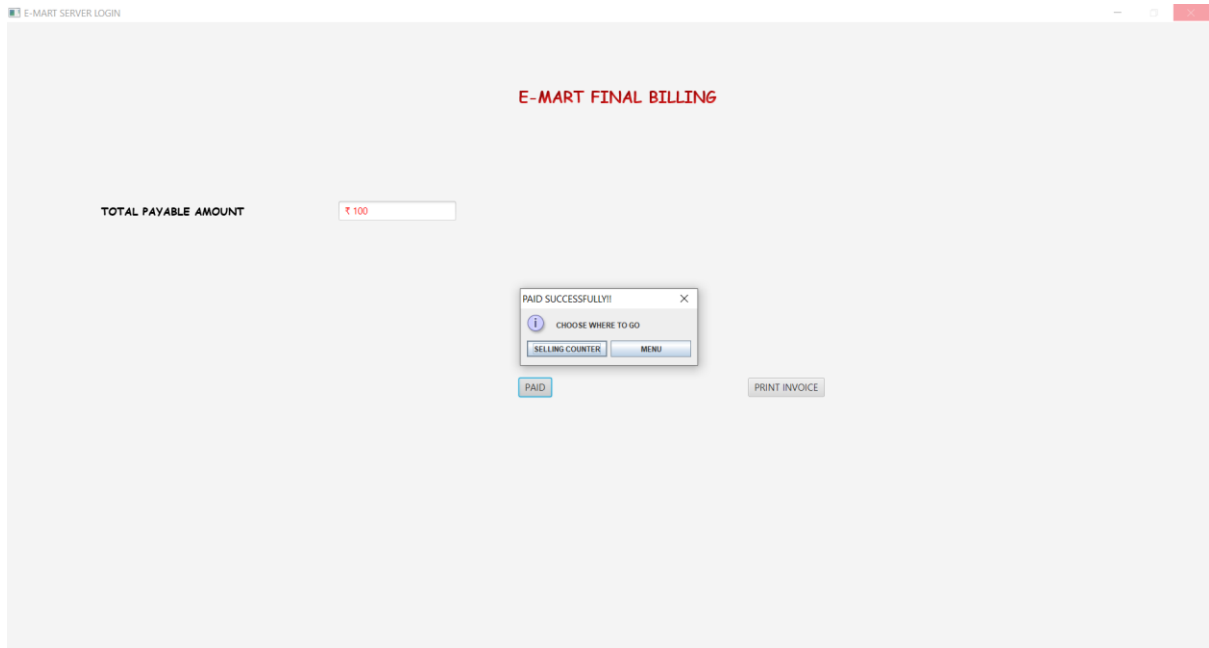
Clicking on bill review:



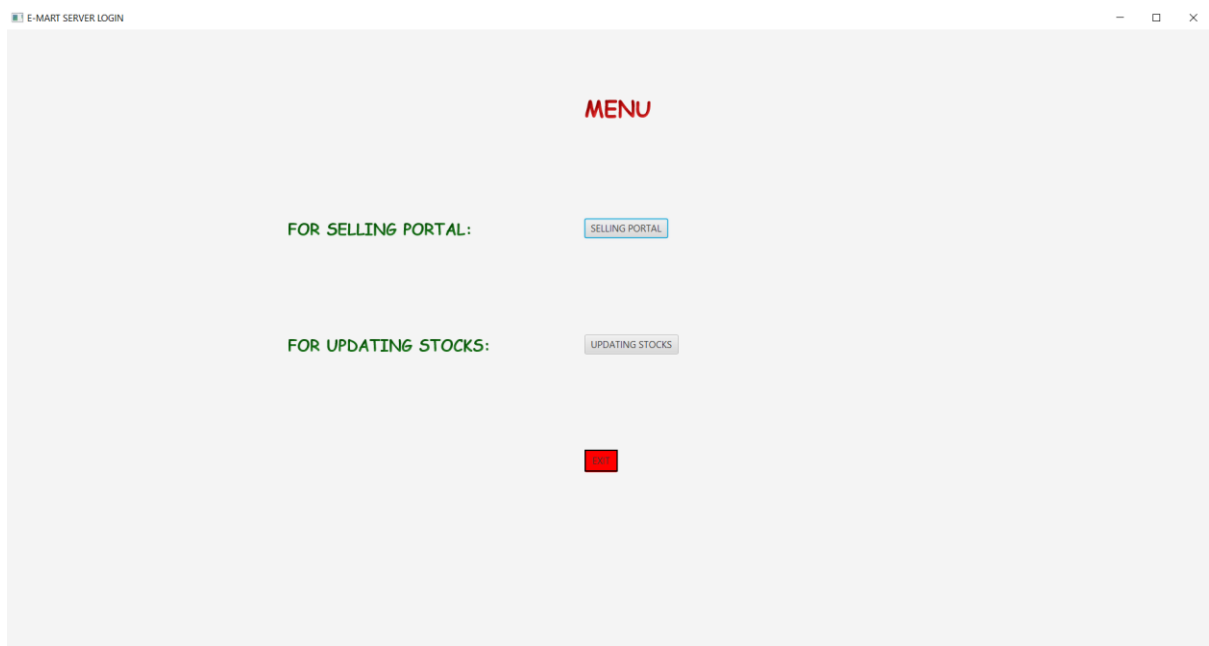
Here on clicking print invoice we get:



On clicking paid:



You will get an option whether to stay in billing portal or go to menu:  
Clicking on menu (to demonstrate updating of stocks):



Here we click on updating stocks:



E-MART SERVER LOGIN

## STOCKS

[BACK](#)

OBJECT NAME

ADD QUANTITY

Bucket	40
Mug	40
Gel Pen	87
Ball Pen	112
Bag	20
Door mat	80
Matress	70
Bedsheet	200
Pillow	200
Pen Stand	30
sugar	60

Here you can see current stocks.

You can add new commodity or update currently present commodity.

Mysql database and table overview:

```
mysql> show databases;
+-----+
| Database |
+-----+
| e_mart   |
| information_schema |
| mysql    |
| performance_schema |
| sakila   |
| sys      |
| world    |
| x        |
+-----+
8 rows in set (1.23 sec)

mysql> use e_mart
Database changed
mysql> show tables;
+-----+
| Tables_in_e_mart |
+-----+
| stocks            |
+-----+
1 row in set (0.25 sec)

mysql> select * from stocks;
+-----+
| name | quant |
+-----+
| Red Bull | 70 |
| Appy Fizz | 35 |
| Frooti | 50 |
| Muffins | 20 |
| Sanitizer | 80 |
| Bucket | 40 |
| Mug | 40 |
| Gel Pen | 87 |
| Ball Pen | 112 |
| Bag | 20 |
| Door mat | 80 |
| Matress | 70 |
| Bedsheet | 200 |
| Pillow | 200 |
| Pen Stand | 30 |
| sugar | 60 |
+-----+
16 rows in set (0.03 sec)
```

Thank you

\*\*\*\*\*