INFORMATICS INVESTIGATORY PROJECT

PEGASUS ONLINE BOOKSTORE

SUBMITTED BY: MUSAAB

INFORMATICS INVESTIGATORY PROJECT

CLASS XII CBSE

REGISTER NUMBER:

   This is to certify that the <u>INFORMATICS INVESTIGATORY</u> project titled<u>   JAVA BASED PEGASUS BOOK STORE   </u>has been successfully completed by <u>   MUSAAB   </u>of class XII in practical fulfillment of curriculum of CENTRAL BOARD OF SECONDARY EDUCATION (CBSE) leading to the award of annual examination of the year 2019-2020.

Teacher-in-charge:

Submitted for the Practical Examination on<u>25</u>/<u>01</u>/**2020** held at International Indian School, Ajman.

External Examiner:

ACKNOWLEDGEMENT

In the accomplishment of this project successfully, many people have best owned upon me their blessings and the heart pledged support, this time I am utilizing to thank all the people who have been concerned with the project.

Primarily I would thank God for being able to complete this project with success. Then I would like to thank my Informatics Teacher **MRS.IRFANA** and **MRS.QURAT-UL-AIN(PRINCIPAL),** whose valuable guidance has been the ones that helped me patch this project and make it full proof success their suggestions and her instruction has served as the major contribution of the project.

Then I would like to thank my parents and friends who have helped me with their valuable suggestions and guidance has been helpful in various phases of the completion of the project.

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OBJECTIVES

The main objective of this project is to:

- *Demonstrate the importance of a database system.*

- *Emphasize the need of saving data in the database.*

- *Study the concept of front end and back end of an application software.*

- *Using an object oriented programming tool Java to develop a front end graphic user interface.*

- *Connect a GUI interface with data stored in database.*

- *Use various methods to store and retrieve data from a database.*

- *Write a complete GUI application with database connectivity.*

- *Apply the knowledge gained in commercial business environment.*

INTRODUCTION

In order to connect to a database from within an application, we need a framework that helps us send and execute SQL statements from within the application code. The most popular programming interface for accessing relational database is ODBC (Open Data Base Connectivity). But ODBC is Microsoft's API which cannot be directly used from within Java. If you want to connect to a relational database (e.g., MySQL's or Oracle's) from within a Java application, we can do it using JDBC (Java Data Base Connectivity) API of Java. You may even use JDBC-ODBC connector that is JDBC layer over ODBC but JDBC is a better choice for accessing databases like MySQL.

What Does JDBC do?

JDBC mainly does following tasks from within a Java application code:

•Establish a connection with a database.

•Send SQL statements to database server.

•Process the results obtained.

In this project we will learn how we can establish database connection from our Java applications and process the retrieved.

HARDWARE AND SOFTWARE REQUIREMENTS

HARDWARE

1. Processor   -   Intel core i3-3240 CPU

2. Memory   -   1.8 GB

3. O.S Type   -   64 bit

4. Disk   -   490.1 GB

5. Graphics   -   Intel Ivy Bridge Desktop

SOFTWARE

1. Front End   -   NetBeans

2. Back End   -   MySQL

3. Operating System   -   Linux

GUI Applications (The Front end)

The programmer develops applications for showing problems with the help of GUI applications know as Front end. The data entered by us in a front end application will get stored in temporary memory (RAM) and not getting saved on a hard disk (or any other secondary storage device). So, a back end is needed to store the data permanently.

Example: -Net beans programming.
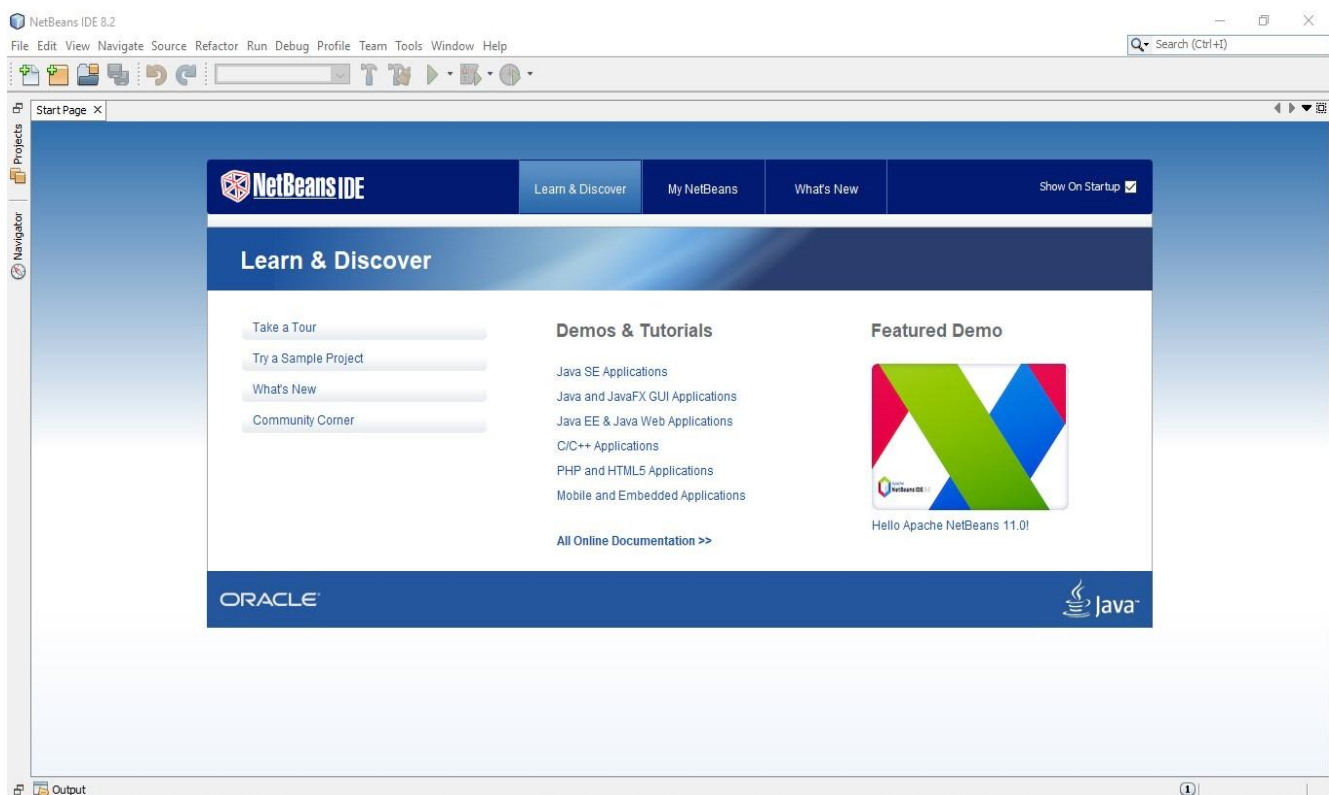
Important features of the frontend applications: -

- *Consistency: -*

Every actions and events are stable in all forms which makes the user easy to understand the designing and coding.

- *Make it convenient for the user: -*

By setting or modify the properties we can make a good appearance for the applications.

Some of the controls needed are jLabel, jTextField, jButton, jRadioButton, jTextArea, etc.

DATABASE (BACK END)

Back-end means data base. it helps us to save data permanently and keeps data ready for future reference, modification and addition. For performing these activities, we required to learn SQL commands like create, Update, Insert, Delete, etc.

EXAMPLE: MySQL

```
mysql> use kindler;
Database changed
mysql> select * from cart;
+------------------+-------+
| bookname         | price |
+------------------+-------+
| INFINITY GAUNTLET |   500 |
| HOBBIT           |   250 |
| SHAPEOFWATER     |   250 |
| ALBERTEINSTEIN   |   300 |
+------------------+-------+
4 rows in set (0.05 sec)

mysql> select * from delivery;
+------+-------------+------------+
| name | address     | billamount |
+------+-------------+------------+
| john | deira dubai |       1300 |
+------+-------------+------------+
1 row in set (0.00 sec)

mysql> select * from signup;
+---------+----------------------+----------+----------+
| name    | email                | username | password |
+---------+----------------------+----------+----------+
| pegasus | pegasusbstore@gmail.com | PEGASUS | WICK    |
+---------+----------------------+----------+----------+
1 row in set (0.00 sec)

mysql>
```

ABOUT OUR PROJECT

OUR PROJECT IS ABOUT MAKING PROGRAM ABOUT BOOKSTORE. WE OFFER MAINLY FICTION AND NON FICTION BOOKS THAT CONSIST OF MEMOIR, SELF-HELP, AND BIOGRAPHY/AUTOGRAPHY BOOKS. ACTION AND ADVENTURE, FANTASY, COMICS AND SCI-FI BOOKS.WE OFFER AN EXPERNSIVE CATERING OF E-BOOKS AT REASONABLE VALUING.

WE WELCOME MODESTLY EVERY ONE TO OUR PEGASUS BOOK STORE.WE PROVIDE YOU WITH ALL NECESSARY INFORMATION REGARDING BOOKS IN OUR STORE. YOU CAN KEEP IN TOUCH WITH US FOR NEW MUSINGS AT pegasusbstore@gmail.com HELPING US TO AD LIB FOR PERUSER FULFILLMENT.

ABOUT US PAGE

ABOUT US

"I PRONOUNCE AFTER

ALL THERE IS

NO PLEASURE LIKE PERUSING!"   *- JANE,PRIDE AND PREJUDICE*

DEAR READERS,

WE OFFER TREMENDOUS GATHERING OF BOOKS IN VARIOUS CLASSIFICATION OF FICTION AND NON FICTION TYPES OF BOOK,THATS AUTOBIOGRAPHY/ BIOGRAPHY MEMOIR AND SELF-HELP BOOKS AND ACTION AND ADVENTURE,FANTASY,COMICS AND SCI-FI BOOKS.WE ALSO SUPPORT TO OFFER AN EXPANSIVE GATERING OF E-BOOKS AT REASONABLE VALUING.

WE MODESTLY WELCOME EVERY ONE OF MERCHANT AROUND INTERNATIONAL TO BAND TOGETHER WITH US. WE WILL WITHOUT A DOUBT GIVE YOU STAGE TO MANY SHIMMERING AREAS AND DEVELOP THE "PEGASUS BOOKSTORE". WE MIGHT WANT YOU TO THANK YOU ALL FOR SHOPPING WITH US AND VISITING OUR STORE. YOU CAN KEEP IN TOUCH WITH US FOR ANY NEW MUSINGS AT "pegasusbstore@gmail.com" HELPING US TO AD LIB FOR PERUSER FULFILLMENT.
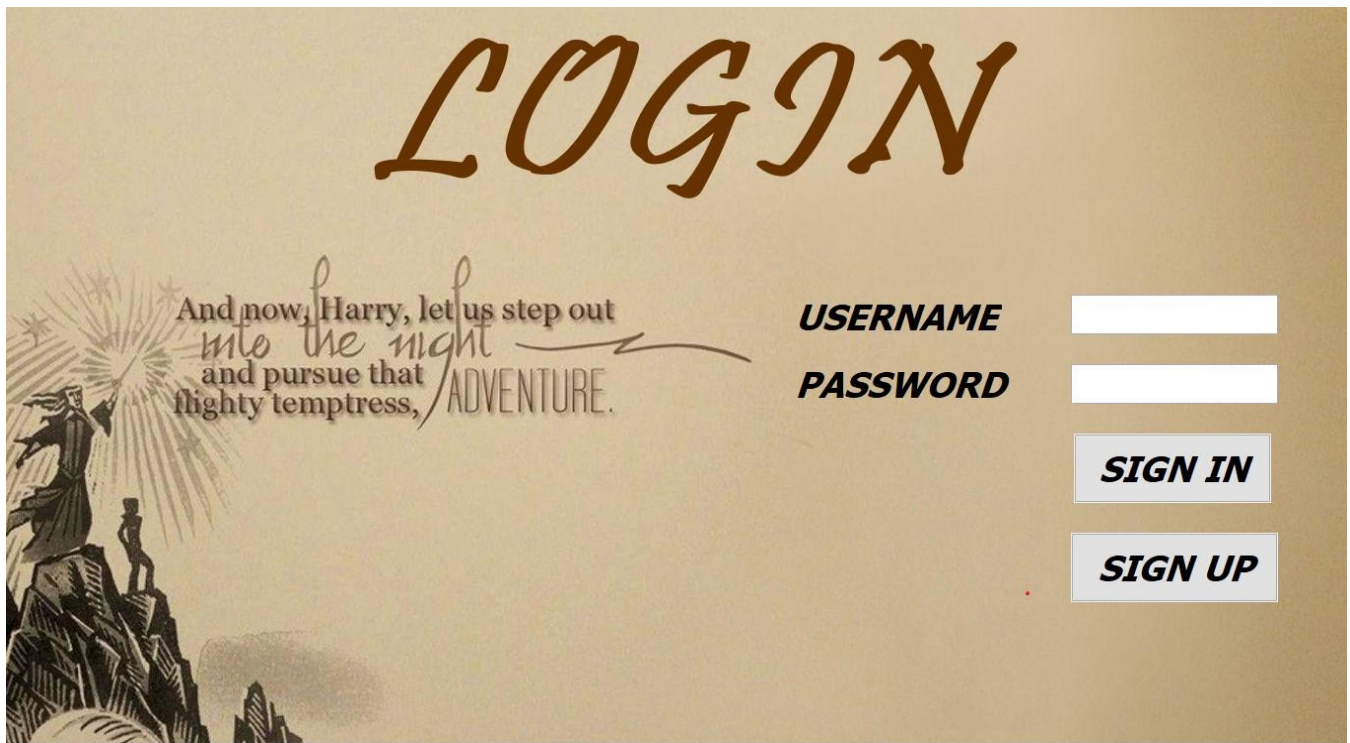
SIGN UP PAGE


```java
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

String name=jTextField1.getText();

String email=jTextField2.getText();

String username=jTextField3.getText();

String password= new String(jPasswordField1.getPassword());

try

{

Class.forName("java.sql.DriverManager");

Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");

Statement stmt=(Statement)con.createStatement();

String query="insert into signup values('"+name+"','"+email+"','"+username+"','"+password+"');";

stmt.executeUpdate(query);

JOptionPane.showMessageDialog(this,"Registered");

}


catch(Exception e)

{

    JOptionPane.showMessageDialog(this,e.getMessage());
```

LOGIN PAGE


```java
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

String username=jTextField1.getText();

String password=new String(jPasswordField1.getPassword());

try

{

Class.forName("java.sql.DriverManager");

Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");

Statement stmt=(Statement)con.createStatement();

String query="Select * from signup;";

ResultSet rs=stmt.executeQuery(query);

while(rs.next())

{

if(password.equals(rs.getString("password")))

{

JOptionPane.showMessageDialog(this,"Login Successfull");

home h=new home();

h.setVisible(true);

}

else
```

HOME PAGE

```java
private void jMenu1MenuSelected(javax.swing.event.MenuEvent evt) {
home f1=new home();
f1.setVisible(true);  }


private void jMenu2MenuSelected (javax.swing.event.MenuEvent evt) {
ABT f1=new ABT();
f1.setVisible(true);  }


private void jMenu3MenuSelected(javax.swing.event.MenuEvent evt) {
login f1=new login();
f1.setVisible(true); }


private void jMenu4MenuSelected(javax.swing.event.MenuEvent evt) {
signup f1=new signup();
f1.setVisible(true);    }
```
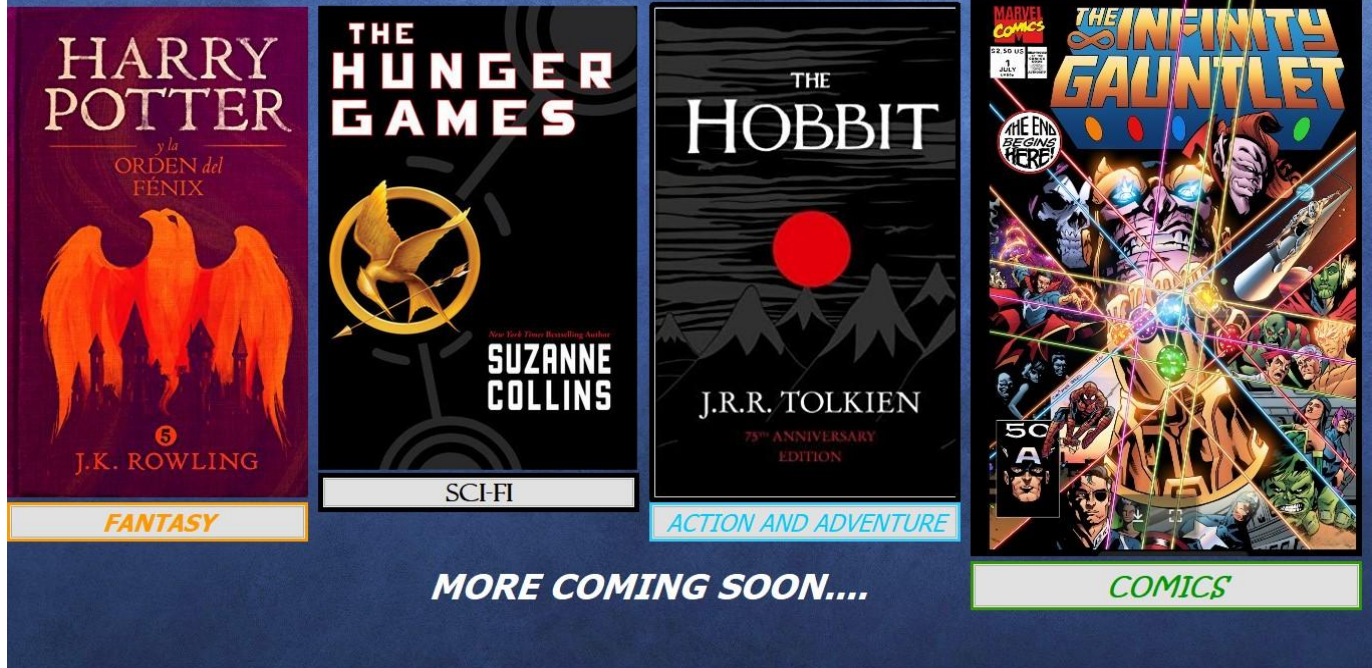
FICTION BOOKS


```
    private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {

        comic f1= new comic();

        f1.setVisible(true);      }


    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {

        action f1= new action();

        f1.setVisible(true);          }


    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

        fantasy f1= new fantasy();

        f1.setVisible(true);          }


    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {

        sci f1= new sci();

        f1.setVisible(true);              }
```
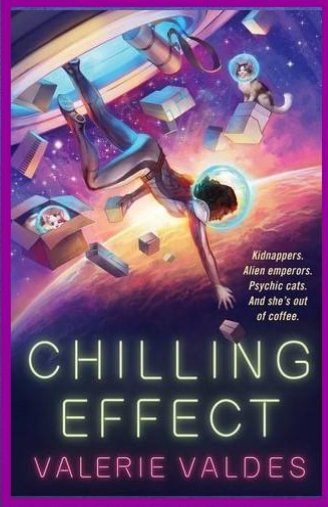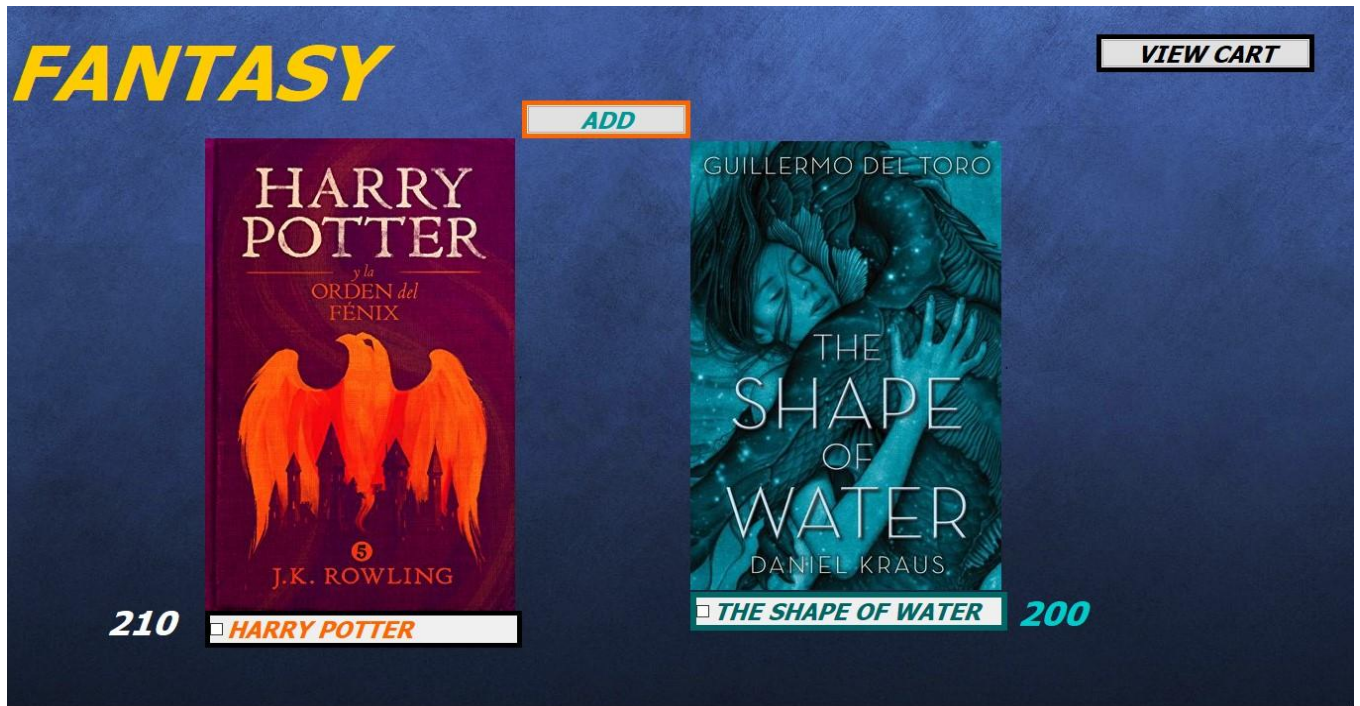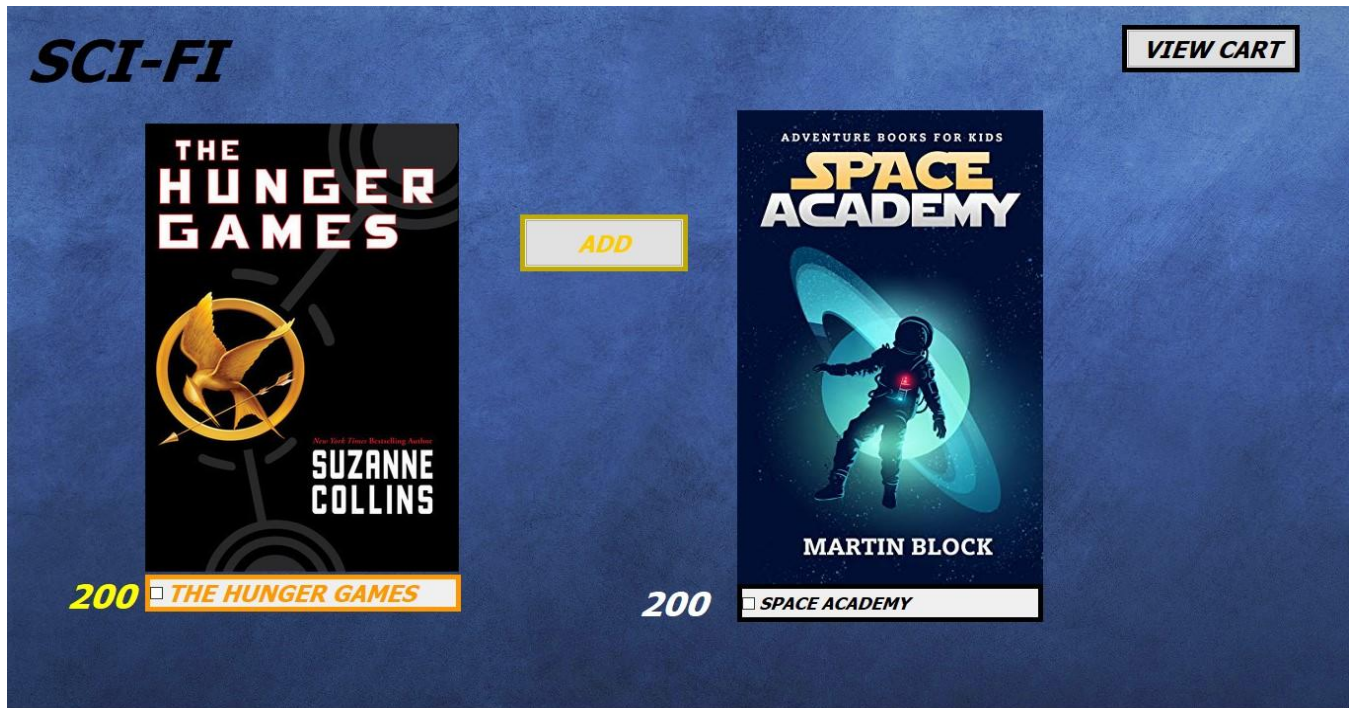
ACTION AND ADVENTURE BOOKS
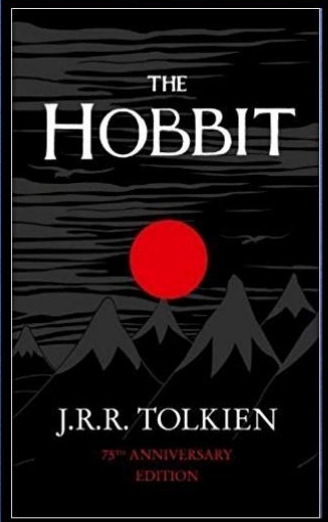

```java
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
try
{
int price;
String bookname;
if(jCheckBox1.isSelected())
{
 bookname="CHILLINGEFFECT";
 price=200;
 Class.forName("java.sql.DriverManager");
Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");
Statement stmt=(Statement)con.createStatement();
String query="insert into cart values('"+bookname+"','"+price+"');";
stmt.executeUpdate(query);
JOptionPane.showMessageDialog(this,"added to cart");
}
}
catch(Exception e)
```

FANTASY BOOKS


```java
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

try

{

int price;

String bookname;

if(jCheckBox1.isSelected())

{

 bookname="HARRYPOTTER";

 price=200;

 Class.forName("java.sql.DriverManager");

Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");

Statement stmt=(Statement)con.createStatement();

String query="insert into cart values('"+bookname+"','"+price+"');";

stmt.executeUpdate(query);

JOptionPane.showMessageDialog(this,"added to cart");

}

}

catch(Exception e)

{

   JOptionPane.showMessageDialog(this,e.getMessage());  }
```
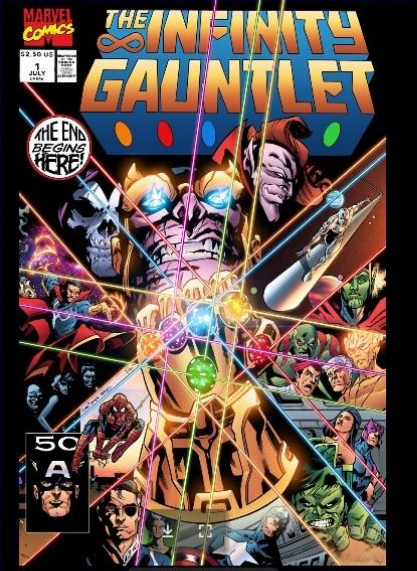
SCI-FI BOOKS


```java
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
try
{
int price;
String bookname;
if(jCheckBox1.isSelected())
{
 bookname="THEHUNGERGAMES";
 price=200;
 Class.forName("java.sql.DriverManager");
Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");
Statement stmt=(Statement)con.createStatement();
String query="insert into cart values('"+bookname+"','"+price+"');";
stmt.executeUpdate(query);
JOptionPane.showMessageDialog(this,"added to cart");
}
}
catch(Exception e)
{
   JOptionPane.showMessageDialog(this,e.getMessage());
```

COMIC BOOKS

COMICS
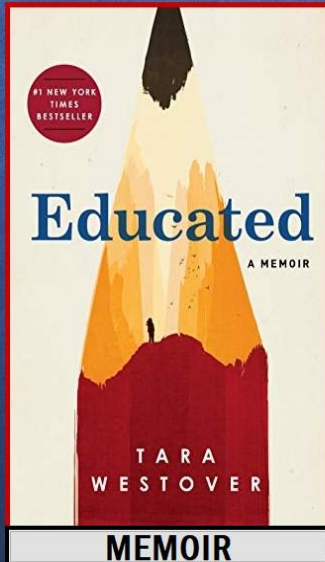
☐ *INFINITY GAUNTLET*

500

☐ *CAPTAIN AMERICA*

550
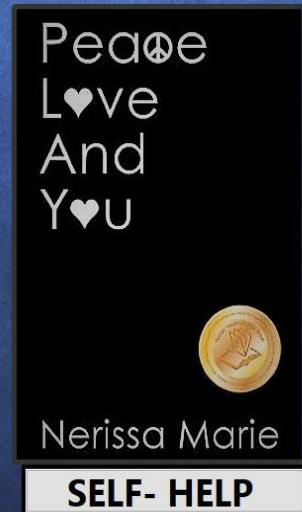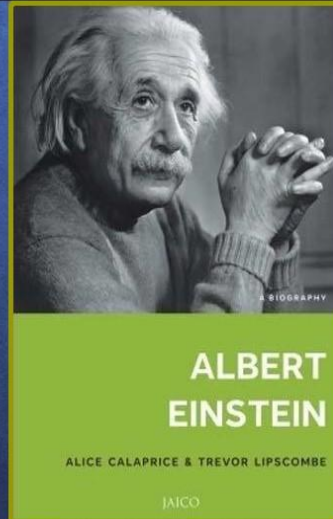
ADD

VIEW CART

private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

try

{

int price;

String bookname;

if(jCheckBox1.isSelected())

{

bookname="INFINITYGAUNTLET";

price=500;

Class.forName("java.sql.DriverManager");

Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");

Statement stmt=(Statement)con.createStatement();

String query="insert into cart values('"+bookname+"','"+price+"');";

stmt.executeUpdate(query);

JOptionPane.showMessageDialog(this,"added to cart");

}

}

catch(Exception e)

{

NON-FICTION BOOKS

BIOGRAPHY/AUTOBIOGRAPHY

MEMOIR

SELF- HELP

MORE COMING SOON....

```
private void jButton9ActionPerformed(java.awt.event.ActionEvent evt) {
    self f1= new self();
    f1.setVisible(true);
    }


private void jButton8ActionPerformed(java.awt.event.ActionEvent evt) {
    biography f1= new biography();
    f1.setVisible(true);
    }


private void jButton7ActionPerformed(java.awt.event.ActionEvent evt) {
    memoir f1= new memoir();
    f1.setVisible(true);     }
```
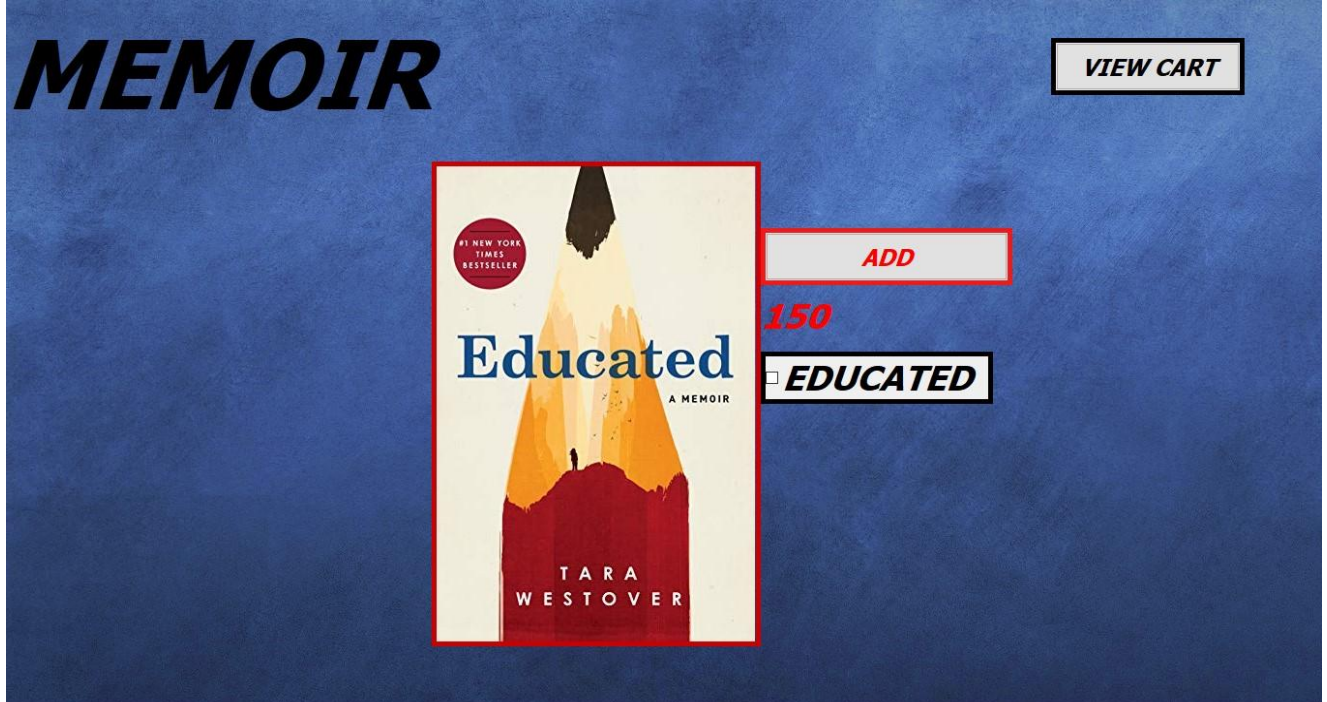
MEMOIR BOOKS

MEMOIR

VIEW CART

ADD

150

EDUCATED
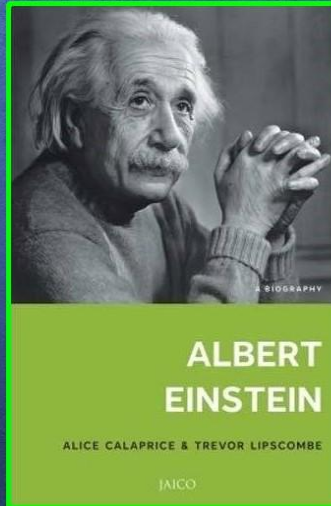
```java
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt){
try
{
int price;
String bookname;
if(jCheckBox1.isSelected())
{
 bookname="EDUCATED";
 price=150;
 Class.forName("java.sql.DriverManager");
Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");
Statement stmt=(Statement)con.createStatement();
String query="insert into cart values('"+bookname+"','"+price+"');";
stmt.executeUpdate(query);
JOptionPane.showMessageDialog(this,"added to cart");
}
}
catch(Exception e)
{
   JOptionPane.showMessageDialog(this,e.getMessage());  }      }
```

AUTOBIOGRAPHY/BIOGRAPHY BOOKS

BIOGRAPHY/AUTOBIOGRAPHY

ALBERT EINSTEIN

ADD   900

VIEW CART

```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
try
{
int price;
String bookname;
if(jCheckBox1.isSelected())
{
 bookname="ALBERTEINSTEIN";
 price=900;
 Class.forName("java.sql.DriverManager");
Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");
Statement stmt=(Statement)con.createStatement();
String query="insert into cart values('"+bookname+"','"+price+"');";
stmt.executeUpdate(query);
```

SELF-HELP BOOKS



```
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {

try

{

int price;

String bookname;

if(jCheckBox1.isSelected())

{

 bookname="PEACELOVEANDYOU";

 price=150;

 Class.forName("java.sql.DriverManager");

Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");

Statement stmt=(Statement)con.createStatement();

String query="insert into cart values('"+bookname+"','"+price+"');";

stmt.executeUpdate(query);

JOptionPane.showMessageDialog(this,"added to cart");  }

}

catch(Exception e)  {

  JOptionPane.showMessageDialog(this,e.getMessage());   }       }
```

CART
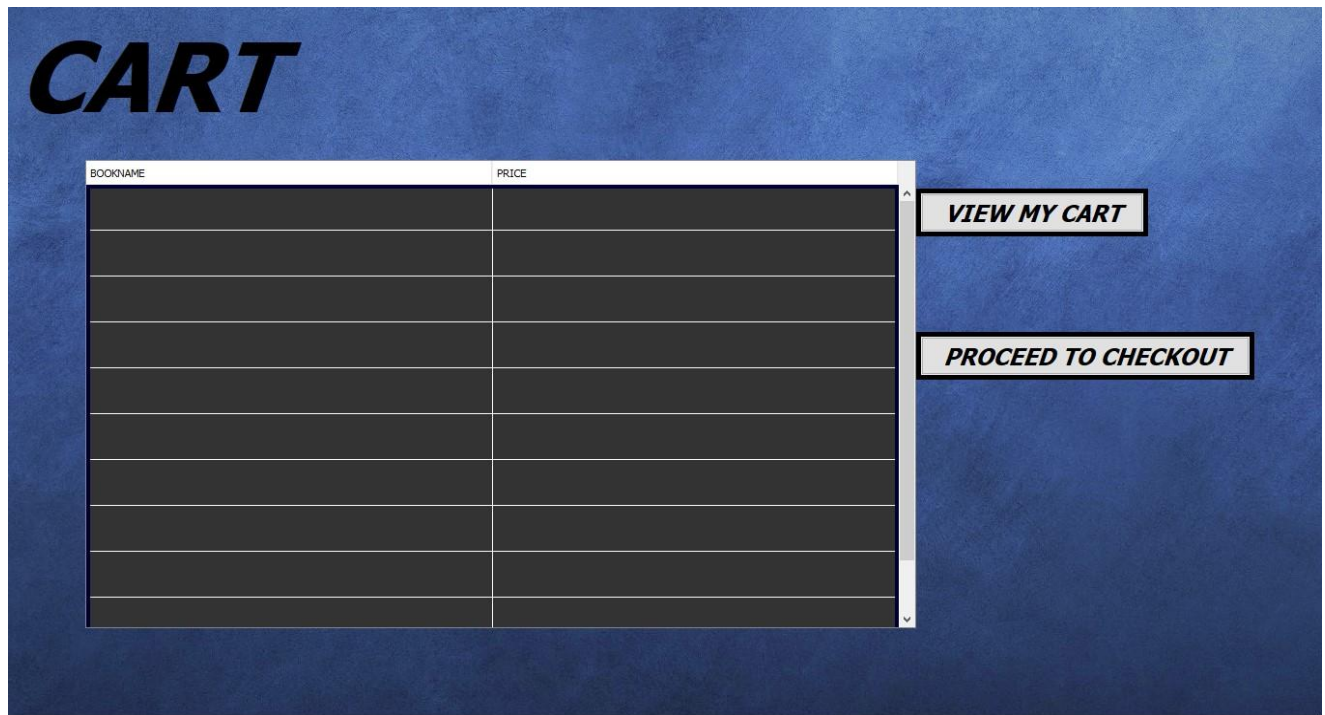

```java
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
try
{
    DefaultTableModel model=(DefaultTableModel)jTable1.getModel();
Class.forName("java.sql.DriverManager");
Connection con=(Connection)DriverManager.getConnection("jdbc:mysql://localhost:3306/kindler","root","admin");
Statement stmt=(Statement)con.createStatement();
String query="select * from cart";
ResultSet rs=stmt.executeQuery(query);
while(rs.next())
{
String bookname=rs.getString("bookname");
String price=rs.getString("price");
model.addRow(new Object[]{bookname,price});    }
}
catch(Exception e)
{
    JOptionPane.showMessageDialog(null,e.getMessage());    }    }
```

CHECKOUT

CHECKOUT

NAME

ADDRESS

MODE OF PAYMENT
- ○ CREDIT CARD
- ○ DEBIT CARD
- ○ CASH ON DELIVERY

CARD NUMBER

TOTAL BILL AMOUNT

CHECKOUT

```java
public checkout() {

 initComponents();

 String type = null;

if(jRadioButton1.isSelected())

{

 type="credit";

}

else if(jRadioButton2.isSelected())

{

   type="debit";

}

else if(jRadioButton3.isSelected())

{

 type="cod";

}

jTextField3.setText(type);

 try

{

 Class.forName("java.sql.DriverManager");
```

DATABASE DESIGN

SHOW TABLE

TABLE: signup

Select* from signup;

TABLE: cart

Select* from cart;

TABLE: delivery

Select* from delivery;

```
mysql> use kindler;
Database changed
mysql> select * from cart;
+------------------+-------+
| bookname         | price |
+------------------+-------+
| INFINITY GAUNTLET |   500 |
| HOBBIT            |   250 |
| SHAPEOFWATER      |   250 |
| ALBERTEINSTEIN    |   300 |
+------------------+-------+
4 rows in set (0.05 sec)

mysql> select * from delivery;
+------+-------------+-----------+
| name | address     | billamount |
+------+-------------+-----------+
| john | deira dubai |      1300 |
+------+-------------+-----------+
1 row in set (0.00 sec)

mysql> select * from signup;
+---------+------------------------+----------+----------+
| name    | email                  | username | password |
+---------+------------------------+----------+----------+
| pegasus | pegasusbstore@gmail.com | PEGASUS  | WICK     |
+---------+------------------------+----------+----------+
1 row in set (0.00 sec)

mysql>
```

CONCLUSION

This project was a great opportunity to connect theoretical knowledge to practical implementation in a real time work scenario.

On successful completion of this project, we were able to understand and implement the following:

- *Create Java programs that solves simple business problems*
- *Understand the importance of system analysis, system designing, data structure creation, program coding, testing, decoding the errors and implementation aspects in a software development.*
- *Validate user input.*
- *Create data structure using MySQL.*
- *Connects the front end JAVA pages to the back end MySQL.*
- *Troubleshoot the program error and rectify the errors.*
- *Perform a test plan to validate a JAVA program.*
- *Document a JAVA program.*

BIBILIOGRAPHY

1)JAVA NETBEANS

2)MYSQL

3)GOOGLE IMAGES

4)GOOGLE.COM

5)BING