UI based book store application:::

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mainUIpack::

package mainUIpack;

import Custop.Custoperationimpl;

import bookop.BookOperationimpl;

import model.Book;

import java.util.ArrayList;

import java.util.Scanner;

public class BookStoreMain {

public static void main(String[] args){

Scanner sc = new Scanner(System.in);

BookOperationimpl boi = new BookOperationimpl();

while(true)

{

System.out.println("1. Add a Book"); // Admin

System.out.println("2. List all the Books"); // Admin , Customer

System.out.println("3. Get a Book"); // Admin , Customer

System.out.println("4. Update a Book Price"); // Admin

System.out.println("5. Add to cart and Bill"); // Customer

System.out.println("6. Exit");

System.out.println("Enter your choice:");

int choice = sc.nextInt();

switch(choice)

{

case 1:

{

System.out.println("enter the details of book");

int BookId=sc.nextInt();

String bookName = sc.next();

int bookPrice = sc.nextInt();

Book book = new Book(BookId,bookName,bookPrice);

System.out.println(boi.addBook(book));

break;

}

case 2:

{

ArrayList<Book> blist = boi.getAllBooks();

for(Book b:blist){

System.out.println(b);

}

break;

}

case 3:

{

System.out.println("enter the book id to search");

int bookId = sc.nextInt();

Book book = boi.getABook(bookId);

if(book != null)

System.out.println(book);

else

System.out.println("book not found");

break;

}

case 4:

{

System.out.println("enter the book id");

int bookId = sc.nextInt();

System.out.println("enter the updated price of the book ");

int upPrice = sc.nextInt();

System.out.println(boi.setBookPrice(bookId,upPrice));

break;

}

case 5:

{

Custoperationimpl cust = new Custoperationimpl();

while(true)

{

String ch="Y";

System.out.println("Enter the book Id to add to cart ");

int bookId = sc.nextInt();

System.out.println("Enter the no. of copies:");

int qty = sc.nextInt();

Book book = boi.getABook(bookId);

cust.addToCart(book,qty);

System.out.println("Do you want to continue adding:");

ch = sc.next();

if (ch.charAt(0)=='N')

break;

}

System.out.println("Transaction Id :"+cust.getTid()+" Bill amout:"+ cust.getBill() );

break;

}

default:

{

sc.close();

System.out.println("BYE!!");

System.exit(0);

}

}

}

}

}

BookOperationimpl:::

package bookop;

import model.Book;

import java.sql.\*;

import java.util.ArrayList;

public class BookOperationimpl implements BookOperations {

public static Connection con=null;

@Override

public String addBook(Book book) {

PreparedStatement ps = null;

con = DBManger.getConnection();

String str = "insert into book values(?,?,?)";

try {

ps = con.prepareStatement(str);

ps.setInt(1,book.getBookid());

ps.setString(2,book.getBookname());

ps.setInt(3,book.getBookprice());

ps.executeUpdate();

return "One row inserted: Book inserted successfully...";

} catch (SQLException e) {

//e.printStackTrace();

return "insertion failed due to exception...";

}

}

@Override

public ArrayList<Book> getAllBooks() {

ArrayList<Book> blist = new ArrayList<Book>();

con = DBManger.getConnection();

try {

Statement st = con.createStatement();

ResultSet rs = st.executeQuery("select \* from book");

while(rs.next()){

Book book = new Book(rs.getInt(1),rs.getString(2),rs.getInt(3));

blist.add(book);

}

} catch (SQLException e) {

e.printStackTrace();

}

return blist;

}

@Override

public Book getABook(int bookId) {

con = DBManger.getConnection();

Book book= null;

try {

Statement st = con.createStatement();

ResultSet rs = st.executeQuery("select \* from book where bookid="+bookId);

while(rs.next()){

book = new Book(rs.getInt(1),rs.getString(2),rs.getInt(3));

}

} catch (SQLException e) {

e.printStackTrace();

}

return book;

}

@Override

public String setBookPrice(int bookid, int upPrice) {

PreparedStatement ps = null;

String str = "update book set bookprice = ? where bookid=?";

con = DBManger.getConnection();

try {

ps=con.prepareStatement(str);

ps.setInt(1,upPrice);

ps.setInt(2,bookid);

ps.executeUpdate();

return "one row updated ... book price updated successfully";

} catch (SQLException e) {

//e.printStackTrace();

return "updation failed...";

}

}

}

BookOperations::

package bookop;

import model.Book;

import java.util.ArrayList;

public interface BookOperations {

String addBook(Book book);

ArrayList<Book> getAllBooks();

Book getABook(int bookId);

String setBookPrice(int bookId,int upPrice );

}

DBManger::

package bookop;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.SQLException;

public class DBManger {

public static Connection con;

public static Connection getConnection()

{

try {

con = DriverManager.getConnection("jdbc:mysql://localhost:3306/bookdatabase","root","Venkatesh@1999");

} catch (SQLException e) {

//e.printStackTrace();

}

return con;

}

}

Custop: Customerationimpl

package Custop;

import bookop.DBManger;

import model.Book;

import java.sql.Connection;

import java.sql.PreparedStatement;

import java.sql.SQLException;

import java.util.ArrayList;

import java.util.HashMap;

import java.util.Map;

import java.util.Random;

public class Custoperationimpl implements Custoperations{

private static int count=0;

private final int tid;

private ArrayList<Book> slist = new ArrayList<Book>();

private Map<Integer,Integer> smap = new HashMap<Integer,Integer>();

public Custoperationimpl() {

this.tid=getCount();

}

private static int getCount() {

Random rand = new Random();

count = (int)(rand.nextInt(5000)+1000);

return count;

}

public int getTid() {

return tid;

}

@Override

public void addToCart(Book book, int qty) {

slist.add(book);

smap.put(book.getBookid(),book.getBookprice()\*qty);

}

@Override

public double getBill() {

int totamt =0;

for (Integer key:smap.keySet())

{

totamt+=smap.get(key);

}

PreparedStatement ps = null;

Connection con = DBManger.getConnection();

String str = "insert into custtranscation values (?,?)";

try {

ps = con.prepareStatement(str);

ps.setInt(1,tid);

ps.setDouble(2,totamt);

ps.executeUpdate();

} catch (SQLException e) {

e.printStackTrace();

}

return totamt;

}

}

Custoperations:::

package Custop;

import model.Book;

public interface Custoperations {

void addToCart(Book book, int qty);

double getBill();

}

package model;

public class Book {

private int bookid;

private String bookname;

private int bookprice;

public Book(int bookid, String bookname, int bookprice) {

this.bookid = bookid;

this.bookname = bookname;

this.bookprice = bookprice;

}

public int getBookid() {

return bookid;

}

public String getBookname() {

return bookname;

}

public int getBookprice() {

return bookprice;

}

@Override

public String toString() {

return "Book{" +

"bookId=" + bookid +

", bookName='" + bookname + '\'' +

", bookPrice=" + bookprice +

'}';

}

public void setBookPrice(int bookPrice) {

this.bookprice = bookPrice;

}

}

output:::

1. Add a Book

2. List all the Books

3. Get a Book

4. Update a Book Price

5. Add to cart and Bill

6. Exit

Enter your choice:

2

Book{bookId=1, bookName='Java', bookPrice=250}

Book{bookId=2, bookName='Python', bookPrice=300}

Book{bookId=3, bookName='Java Script', bookPrice=275}

Book{bookId=100, bookName='comsci', bookPrice=350}

Book{bookId=101, bookName='C++', bookPrice=400}

1. Add a Book

2. List all the Books

3. Get a Book

4. Update a Book Price

5. Add to cart and Bill

6. Exit

Enter your choice:

5

Enter the book Id to add to cart

1

Enter the no. of copies:

10

Do you want to continue adding:

y

Enter the book Id to add to cart

2

Enter the no. of copies:

10

Do you want to continue adding:

y

Enter the book Id to add to cart

3

Enter the no. of copies:

10

Do you want to continue adding:

N

Transaction Id :4640 Bill amout:8250.0

1. Add a Book

2. List all the Books

3. Get a Book

4. Update a Book Price

5. Add to cart and Bill

6. Exit

Enter your choice:

6

BYE!!

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JDBC metadata:::

import java.sql.\*;  
  
public class Main {  
 public static void main(String[] args) throws SQLException {  
  
 Connection con = DriverManager.getConnection("jdbc:mysql://localhost:3306/bookdatabase","root","Venkatesh@1999");  
 // create a statement object  
 Statement st = con.createStatement();  
 // execute the query  
 ResultSet rs = st.executeQuery("select \* from book");  
  
 ResultSetMetaData rsmd =rs.getMetaData();  
 System.out.println("Total no. of column: "+rsmd.getColumnCount());  
 System.out.println("Column name os 1st column: "+rsmd.getColumnName(1));  
 System.out.println("column type of 1st column: "+rsmd.getColumnTypeName(1));  
  
  
  
 }  
}  
Total no. of column: 3

Column name os 1st column: bookid

column type of 1st column: INT