Library():

package JavaProject;

import java.util.\*;

import java.sql.\*;

public class Library

{

protected String user\_ref\_id;

protected String user\_name;

final static protected float premium\_fees = 500;

protected String[] book\_list= {"BID-1002","BID-1007","BID-1256","BID-2004","BID-324","BID-604","BID-682","BID-906","BID-1024","BID-1010"};

Stack<String> book\_stack = new Stack<String>();

Library(String user\_ref\_id,String user\_name)

{

this.user\_ref\_id = user\_ref\_id;

this.user\_name = user\_name;

for(int i=0;i<book\_list.length;i++)

{

book\_stack.add(book\_list[i]);

}

try

{

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:8080/mydb","root","Mudeprab@04");

Statement stmt = conn.createStatement();

ResultSet myRs = stmt.executeQuery("select \* from library\_;");

while(myRs.next())

{

if(myRs.getBoolean(5)==false)

{

boolean res = book\_stack.remove(myRs.getString(3));

}

}

}

catch(Exception e)

{

e.printStackTrace();

}

}

public void borrowbook()

{

try

{

int bool=0;

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:8080/mydb","root","Mudeprab@04");

Statement stmt = conn.createStatement();

ResultSet myRs = stmt.executeQuery("select \* from library\_;");

while(myRs.next())

{

if(user\_ref\_id.equals(myRs.getString(1)))

{

if(myRs.getBoolean(5)==false)

{

bool=1;

}

}

}

if(bool==1)

{

System.out.print("You have not returned the previous book\nKindly return the previous book to boorow a new one");

return;

}

System.out.println("List of books available:");

for(int i=0;i<book\_stack.size();i++)

{

System.out.println((i+1)+". "+book\_stack.elementAt(i));

}

Scanner s = new Scanner(System.in);

System.out.println("Enter the index next to the book id");

int bookch = s.nextInt();

bookch--;

stmt.executeUpdate("insert into library\_ values('"+user\_ref\_id+"','"+user\_name+"','"+book\_stack.elementAt(bookch)+"',CURRENT\_DATE,false);");

System.out.println("Borrow succesfull!!!");

}

catch(Exception e)

{

e.printStackTrace();

}

}

public void returnbook()

{

try

{

Scanner s = new Scanner(System.in);

int bool=0;

String borrowedbook="";

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:8080/mydb","root","Mudeprab@04");

Statement stmt = conn.createStatement();

ResultSet myRs = stmt.executeQuery("select \* from library\_;");

while(myRs.next())

{

if(user\_ref\_id.equals(myRs.getString(1)))

{

if(myRs.getBoolean(5)==false)

{

bool=1;

borrowedbook = myRs.getString(3);

}

}

}

if(bool==0)

{

System.out.println("You do not have any borrowed book currently");

return;

}

System.out.println("Are you sure You need to return the Book: "+borrowedbook);

System.out.println("Enter: 1-Yes/2-No");

int userch = s.nextInt();

if(userch==1)

{

System.out.println("Book returned Successfully!!!");

stmt.executeUpdate("update library\_ set returned=true where book\_id='"+borrowedbook+"';");

}

}

catch(Exception e)

{

e.printStackTrace();

}

}

}

Staff():

package JavaProject;

import java.sql.\*;

import java.util.\*;

public abstract class staff

{

protected String staff\_id;

protected String name;

protected String staff\_dept;

protected float staff\_pay;

static protected float staff\_incentive=5000.0f;

sports\_house sh;

Library libr;

staff(String staff\_id)

{

this.staff\_id = staff\_id;

sh = new sports\_house();

try

{

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:8080/mydb","root","Mudeprab@04");

Statement stmt = conn.createStatement();

ResultSet myRs = stmt.executeQuery("select \* from staff");

while(myRs.next())

{

if(staff\_id.equals(myRs.getString(1)))

{

name = myRs.getString(2);

staff\_dept = myRs.getString(3);

staff\_pay = myRs.getFloat(4);

}

}

}

catch(Exception e)

{

e.printStackTrace();

}

libr = new Library(staff\_id,name);

}

public void view\_staff\_details()

{

System.out.println("Staff id: "+staff\_id);

System.out.println("Name: "+name);

System.out.println("Department: "+staff\_dept);

System.out.println("staff Pay: "+staff\_pay);

System.out.println("staff Incentive: "+staff\_incentive);

}

public void access\_library()

{

Scanner s = new Scanner(System.in);

System.out.println("Enter\n1. If you want to Borrow Book\n2. If you want to Return book");

int libch = s.nextInt();

if(libch==1)

{

libr.borrowbook();

}

else if(libch==2)

{

libr.returnbook();

}

}

public void access\_leaderboard()

{

Scanner s = new Scanner(System.in);

sh.view\_leader\_board();

System.out.println("Do you want to edit leader board?(1-Yes/2-No)");

int editch = s.nextInt();

if(editch==1)

{

sh.modify\_leader\_board();

System.out.println("Updated Leaderboard:");

sh.view\_leader\_board();

}

}

public void load\_address(address a,int choice)

{

try

{

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:8080/mydb","root","Mudeprab@04");

Statement stmt = conn.createStatement();

ResultSet myRs = stmt.executeQuery("select \* from address;");

while(myRs.next())

{

if(staff\_id.equals(myRs.getString(1)))

{

a.set\_city(myRs.getString(3));

a.set\_pincode(myRs.getInt(4));

a.set\_street(myRs.getString(2));

}

}

if(choice==1)

{

System.out.println("Address: "+a.get\_street()+" "+a.get\_city()+" "+a.get\_pincode());

}

else if(choice==2)

{

a.modify\_address();

stmt.executeUpdate("Update address set street='"+a.get\_street()+"',city='"+a.get\_city()+"',pincode="+a.get\_pincode()+" where reference\_id='"+staff\_id+"';");

System.out.println("Update Succesfull!!!");

}

}

catch(Exception e)

{

e.printStackTrace();

}

}

public void allocate\_marks()

{

try

{

int ch=0;

do

{

Stack<String> stack = new Stack<String>();

float[] marks = new float[5];

Scanner sc = new Scanner(System.in);

System.out.println("Enter the roll no of the student whose marks you want to enter:");

String roll\_no = sc.next();

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:8080/mydb","root","Mudeprab@04");

Statement stmt = conn.createStatement();

ResultSet myRs = stmt.executeQuery("select \* from course\_registration;");

while(myRs.next())

{

if(roll\_no.equals(myRs.getString(1)))

{

boolean aa = stack.add(myRs.getString(2));

}

}

if(stack.isEmpty())

{

System.out.println("Student has not enrolled in any courses");

}

else

{

for(int i=0;i<5;i++)

{

System.out.println("Enter the mark for the subject: "+stack.elementAt(i));

marks[i] = sc.nextFloat();

}

stmt.executeUpdate("Update marks set mark1="+marks[0]+" where roll\_no='"+roll\_no+"';");

stmt.executeUpdate("Update marks set mark2="+marks[1]+" where roll\_no='"+roll\_no+"';");

stmt.executeUpdate("Update marks set mark3="+marks[2]+" where roll\_no='"+roll\_no+"';");

stmt.executeUpdate("Update marks set mark4="+marks[3]+" where roll\_no='"+roll\_no+"';");

stmt.executeUpdate("Update marks set mark5="+marks[4]+" where roll\_no='"+roll\_no+"';");

System.out.println("Updated values:");

for(int i=0;i<5;i++)

{

System.out.println(roll\_no+"'s Mark in the Subject: "+stack.elementAt(i)+" is: "+marks[i]);

}

}

System.out.println("Do you want to enter marks for any other student?(1-Yes/2-No)");

ch = sc.nextInt();

}while(ch==1);

}

catch(Exception e)

{

e.printStackTrace();

}

}

}

Support\_staff:

package JavaProject;

import java.sql.\*;

import java.util.\*;

public class support\_staff extends staff

{

protected String staff\_id;

protected float overtime\_pay;;

support\_staff(String staff\_id)

{

super(staff\_id);

this.staff\_id = staff\_id;

try

{

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:8080/mydb","root","Mudeprab@04");

Statement stmt = conn.createStatement();

ResultSet myRs = stmt.executeQuery("select \* from support\_staff");

while(myRs.next())

{

if(staff\_id.equals(myRs.getString(1)))

{

overtime\_pay = myRs.getFloat(2);

}

}

}

catch(Exception e)

{

e.printStackTrace();

}

}

public void view\_staff\_details()

{

super.view\_staff\_details();

System.out.println("Overtime Pay: "+overtime\_pay);

}

}

Teaching staff():

package JavaProject;

import java.sql.\*;

import java.util.\*;

public class teaching\_staff extends staff

{

protected String staff\_id;

protected float subscription\_allotment;

teaching\_staff(String staff\_id)

{

super(staff\_id);

this.staff\_id = staff\_id;

try

{

Connection conn = DriverManager.getConnection("jdbc:mysql://localhost:8080/mydb","root","Mudeprab@04");

Statement stmt = conn.createStatement();

ResultSet myRs = stmt.executeQuery("select \* from teaching\_staff");

while(myRs.next())

{

if(staff\_id.equals(myRs.getString(1)))

{

subscription\_allotment = myRs.getFloat(2);

}

}

}

catch(Exception e)

{

e.printStackTrace();

}

}

public void view\_staff\_details()

{

super.view\_staff\_details();

System.out.println("Subscription Allotment: "+subscription\_allotment);

}

}