**National University of Modern Languages**

Logo

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**Assignment#01**

**Roll # 2340**

**Class: BSCS 5B Morning**

**Subject: ADVANCE OOP**

**Submitted to: Mr. Imran Ahsan**

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**About:** This assignment is about the Library Management System. After login the form there is some functionality that the management system does. It takes student and Book records. Students can Issue & Return books.

**DAO LAYERS:**

**AccountDao**

import java.sql.\*;

import javax.swing.JOptionPane;

public class AccountDao {

Connection con = null;

void Connection() {

try {

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

String url = "jdbc:mysql://localhost:3306/LibraryManagement";

con = DriverManager.getConnection(url, "root", "");

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

}

int Insert(Account A) {

Connection();

int res = 0;

try {

String qry = "insert into Account values (?,?,?,?,?)";

PreparedStatement pst = con.prepareStatement(qry);

pst.setString(1, A.Username);

pst.setString(2, A.Name);

pst.setInt(3, A.Password);

pst.setString(4,A.Sec\_Q);

pst.setString(5,A.Answer);

res = pst.executeUpdate();

con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

ResultSet Search(Account A){

Connection();

ResultSet res=null;

try {

String qry="select \* from Account where Username = ?";

PreparedStatement pst = con.prepareStatement(qry);

pst.setString(1,A.Username);

res = pst.executeQuery();

// con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

ResultSet Retrieve(Account A){

Connection();

ResultSet res=null;

try {

String qry="select \* from Account where Answer = ?";

PreparedStatement pst = con.prepareStatement(qry);

pst.setString(1,A.Answer);

res = pst.executeQuery();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

ResultSet Authenticate(Account A){

Connection();

ResultSet res=null;

try {

String qry="select \* from Account where Username = ? and Password=?";

PreparedStatement pst = con.prepareStatement(qry);

pst.setString(1,A.Username);

pst.setInt(2, A.Password);

res = pst.executeQuery();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

}

**BookDao:**

import java.sql.\*;

import javax.swing.JOptionPane;

public class BookDao {

Connection con = null;

void Connection() {

try {

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

String url = "jdbc:mysql://localhost:3306/LibraryManagement";

con = DriverManager.getConnection(url, "root", "");

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

}

int Insert(Book b) {

Connection();

int res = 0;

try {

String qry = "insert into Book values (?,?,?,?,?,?)";

PreparedStatement pst = con.prepareStatement(qry);

pst.setInt(1, b.Book\_Id);

pst.setString(2, b.Name);

pst.setInt(3, b.Edition);

pst.setString(4, b.Publisher);

pst.setInt(5, b.Price);

pst.setInt(6, b.Page);

res = pst.executeUpdate();

con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

}

**StudentDao:**

import java.sql.\*;

import javax.swing.JOptionPane;

public class StudentDao {

Connection con = null;

void Connection() {

try {

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

String url = "jdbc:mysql://localhost:3306/LibraryManagement";

con = DriverManager.getConnection(url, "root", "");

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

}

int Insert(NewStudent s) {

Connection();

int res = 0;

try {

String qry = "insert into NewStudent values (?,?,?,?)";

PreparedStatement pst = con.prepareStatement(qry);

pst.setInt(1,s.StudentId );

pst.setString(2, s.Name);

pst.setString(3, s.Course);

pst.setInt(4,s.Semster);

res = pst.executeUpdate();

con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

int Update(NewStudent s) {

Connection();

int res = 0;

try {

String qry = "update newstudent set Name=?, Course=?, Semster=? where StudentId=?";

PreparedStatement pst = con.prepareStatement(qry);

pst.setString(1, s.Name);

pst.setString(2, s.Course);

pst.setInt(3,s.Semster);

pst.setInt(4,s.StudentId );

res = pst.executeUpdate();

con.close();

} catch (Exception ex) {

System.out.println(ex.toString());

}

return res;

}

}

**IssueDao:**

import java.sql.\*;

import javax.swing.JOptionPane;

public class IssueDao {

Connection con = null;

void Connection() {

try {

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

String url = "jdbc:mysql://localhost:3306/LibraryManagement";

con = DriverManager.getConnection(url, "root", "");

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

}

ResultSet Search(Book b) {

Connection();

ResultSet res = null;

try {

String qry = "select \* from book where Book\_Id = ?";

PreparedStatement pst = con.prepareStatement(qry);

pst.setInt(1, b.Book\_Id);

res = pst.executeQuery();

//con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

ResultSet Search(NewStudent s) {

Connection();

ResultSet res = null;

try {

String qry = "select \* from newstudent where StudentId = ?";

PreparedStatement pst = con.prepareStatement(qry);

pst.setInt(1, s.StudentId);

res = pst.executeQuery();

//con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

int Insert(Issue I) {

Connection();

int res = 0;

try {

String qry = "insert into issue values (?,?,?,?,?,?,?,?,?,?,?)";

PreparedStatement pst = con.prepareStatement(qry);

pst.setInt(1, I.Book\_Id);

pst.setString(2, I.BName);

pst.setString(3, I.Edition);

pst.setString(4,I.Publisher);

pst.setInt(5, I.Price);

pst.setInt(6, I.Page);

pst.setInt(7, I.S\_Id);

pst.setString(8, I.SName);

pst.setString(9, I.Course);

pst.setInt(10, I.Semster);

pst.setString(11, I.Date\_of\_Issue);

res = pst.executeUpdate();

con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

}

**ReturnDao:**

import java.sql.\*;

import javax.swing.JOptionPane;

public class ReturnDao {

Connection con = null;

void Connection() {

try {

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

String url = "jdbc:mysql://localhost:3306/LibraryManagement";

con = DriverManager.getConnection(url, "root", "");

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

}

ResultSet Search(Issue I) {

Connection();

ResultSet res = null;

try {

String qry = "select \* from Issue where S\_Id = ?";

PreparedStatement pst = con.prepareStatement(qry);

pst.setInt(1, I.S\_Id);

res = pst.executeQuery();

//con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

int Delete(Issue I){

Connection();

int res=0;

try {

String qry ="delete from Issue where S\_Id=?";

PreparedStatement pst = con.prepareStatement(qry);

pst.setInt(1,I.S\_Id);

res = pst.executeUpdate();

con.close();

} catch (Exception ex) {

System.out.println(ex.toString());

}

return res;

}

int Insert(Return R) {

Connection();

int res = 0;

try {

String qry = "insert into Return\_Book values (?,?,?,?,?,?,?,?,?,?,?,?)";

PreparedStatement pst = con.prepareStatement(qry);

pst.setInt(1, R.S\_Id);

pst.setString(2, R.SName);

pst.setString(3, R.Course);

pst.setInt(4, R.Semster);

pst.setInt(5, R.Book\_Id);

pst.setString(6, R.BName);

pst.setString(7, R.Edition);

pst.setString(8,R.Publisher);

pst.setInt(9, R.Price);

pst.setInt(10, R.Page);

pst.setString(11, R.Date\_of\_Issue);

pst.setString(12, R.Date\_of\_Return);

res = pst.executeUpdate();

con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

System.out.println("insert problem");

}

return res;

}

ResultSet Record(Issue I) {

Connection();

ResultSet res = null;

try {

String qry = "select Book\_Id, S\_Id,Semster,Date\_of\_Issue from Issue";

Statement pst = con.createStatement();

res = pst.executeQuery(qry);

//con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

ResultSet Record2(Return R) {

Connection();

ResultSet res = null;

try {

String qry = "select Book\_Id, S\_Id,Semster,Date\_of\_Return from Return\_Book";

Statement pst = con.createStatement();

res = pst.executeQuery(qry);

//con.close();

} catch (Exception ex) {

JOptionPane.showMessageDialog(null, ex.toString());

}

return res;

}

}

**SCREENSHOTS OF GUI**

**Graphical user interface, application

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Graphical user interface, application

Description automatically generated

***AFTER CREATING AN ACCOUNT THEN LOG IN IF FORGET THE PASSWORD IN THIS MANAGEMENT SYSTEM YOU HAVE AN OPTION TO GET THE AGAIN PASSWORD THEN LOGIN INTO THE MANAGEMENT SYSTEM***

Graphical user interface, application

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Graphical user interface

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**Student Record**

Graphical user interface

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Graphical user interface

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Graphical user interface

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