**package** com.dxc.assess.jdbc;

**import** java.sql.Connection;

**import** java.sql.DriverManager;

**import** java.sql.SQLException;

**public** **class** DBConnection {

**public** DBConnection() {

}

**public** **static** Connection getConnection() {

// **TODO** Auto-generated method stub

**try** {

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

} **catch** (ClassNotFoundException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

Connection connection = **null**;

**try** {

connection = DriverManager.*getConnection*("jdbc:mysql://localhost:3306/dxc", "root", "root");

} **catch** (SQLException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

**return** connection;

}

}

**package** com.dxc.assess.model;

**public** **class** User {

**private** String userName;

**private** String passWord;

**private** **int** sapId;

**private** String empName;

**private** String stream;

**private** **int** percentage;

**public** User() {

**super**();

// **TODO** Auto-generated constructor stub

}

**public** User(String userName, String passWord) {

**super**();

**this**.userName = userName;

**this**.passWord = passWord;

}

**public** User(**int** sapId, String empName, String stream, **int** percentage) {

**super**();

**this**.sapId = sapId;

**this**.empName = empName;

**this**.stream = stream;

**this**.percentage = percentage;

}

@Override

**public** **int** hashCode() {

**final** **int** prime = 31;

**int** result = 1;

result = prime \* result + ((empName == **null**) ? 0 : empName.hashCode());

result = prime \* result + ((passWord == **null**) ? 0 : passWord.hashCode());

result = prime \* result + percentage;

result = prime \* result + sapId;

result = prime \* result + ((stream == **null**) ? 0 : stream.hashCode());

result = prime \* result + ((userName == **null**) ? 0 : userName.hashCode());

**return** result;

}

@Override

**public** **boolean** equals(Object obj) {

**if** (**this** == obj)

**return** **true**;

**if** (obj == **null**)

**return** **false**;

**if** (getClass() != obj.getClass())

**return** **false**;

User other = (User) obj;

**if** (empName == **null**) {

**if** (other.empName != **null**)

**return** **false**;

} **else** **if** (!empName.equals(other.empName))

**return** **false**;

**if** (passWord == **null**) {

**if** (other.passWord != **null**)

**return** **false**;

} **else** **if** (!passWord.equals(other.passWord))

**return** **false**;

**if** (percentage != other.percentage)

**return** **false**;

**if** (sapId != other.sapId)

**return** **false**;

**if** (stream == **null**) {

**if** (other.stream != **null**)

**return** **false**;

} **else** **if** (!stream.equals(other.stream))

**return** **false**;

**if** (userName == **null**) {

**if** (other.userName != **null**)

**return** **false**;

} **else** **if** (!userName.equals(other.userName))

**return** **false**;

**return** **true**;

}

**public** **int** getSapId() {

**return** sapId;

}

**public** **void** setSapId(**int** sapId) {

**this**.sapId = sapId;

}

**public** String getEmpName() {

**return** empName;

}

**public** **void** setEmpName(String empName) {

**this**.empName = empName;

}

**public** String getStream() {

**return** stream;

}

**public** **void** setStream(String stream) {

**this**.stream = stream;

}

**public** **int** getPercentage() {

**return** percentage;

}

**public** **void** setPercentage(**int** percentage) {

**this**.percentage = percentage;

}

**public** String getUserName() {

**return** userName;

}

**public** **void** setUserName(String userName) {

**this**.userName = userName;

}

**public** String getPassWord() {

**return** passWord;

}

**public** **void** setPassWord(String passWord) {

**this**.passWord = passWord;

}

}

**package** com.dxc.assess.client;

**public** **class** Main {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

UserApp user = **new** UserApp();

user.validate();

}

}

**package** com.dxc.assess.client;

**import** java.util.Scanner;

**import** com.dxc.assess.dao.UserDAO;

**import** com.dxc.assess.dao.UserDAOImpl;

**import** com.dxc.assess.model.User;

**public** **class** UserApp {

**public** **void** validate() {

UserDAO userDAO = **new** UserDAOImpl();

Scanner s = **new** Scanner(System.***in***);

System.***out***.println("Enter your Username: ");

String username = s.next();

System.***out***.println("Enter your Password: ");

String password = s.next();

User user = **new** User(username, password);

**if** (!userDAO.userValidate(user)) {

System.*exit*(0);

}

**while** (**true**) {

System.***out***.println("MENU");

System.***out***.println("1. Display All Training Records");

System.***out***.println("2. Display Records one by one and update the percentage");

System.***out***.println("3. Exit");

**int** choice = 0;

System.***out***.println("Please enter your choice: (1-3)");

choice = s.nextInt();

**switch** (choice) {

**case** 1:

userDAO.getAllTrainingDetails();

**break**;

**case** 2:

userDAO.updatePercentage();

**break**;

**case** 3:

System.***out***.println("Thanks For using my App");

System.*exit*(0);

}

}

}

}

**package** com.dxc.assess.dao;

**import** java.util.List;

**import** com.dxc.assess.model.User;

**public** **interface** UserDAO {

**public** **boolean** userValidate(User user);

**public** **void** getAllTrainingDetails();

**public** **void** updatePercentage();

}

**package** com.dxc.assess.dao;

**import** java.sql.Connection;

**import** java.sql.PreparedStatement;

**import** java.sql.ResultSet;

**import** java.sql.ResultSetMetaData;

**import** java.sql.SQLException;

**import** java.sql.Statement;

**import** java.util.Scanner;

**import** com.dxc.assess.jdbc.DBConnection;

**import** com.dxc.assess.model.User;

**public** **class** UserDAOImpl **implements** UserDAO {

**private** **static** **final** String ***FETCH\_ALL\_TRAINING\_DETAILS*** = "SELECT \* FROM training";

**private** **static** **final** String ***VALIDATE\_DETAILS*** = "SELECT \* FROM users WHERE username = ? AND password = ?";

Connection connection = DBConnection.*getConnection*();

**public** **boolean** userValidate(User user) {

**try** {

PreparedStatement stat = connection.prepareStatement(***VALIDATE\_DETAILS***);

stat.setString(1, user.getUserName());

stat.setString(2, user.getPassWord());

ResultSet results = stat.executeQuery();

**if** (results.next()) {

System.***out***.println("User successfully authenticated.");

System.***out***.println("Welcome...");

**return** **true**;

} **else** {

System.***out***.println("User name cannot be authenticated.");

**return** **false**;

}

} **catch** (SQLException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

**return** **false**;

}

}

**public** **void** getAllTrainingDetails() {

**try** {

Statement stat = connection.createStatement();

ResultSet res = stat.executeQuery(***FETCH\_ALL\_TRAINING\_DETAILS***);

**while** (res.next()) {

System.***out***.println(res.getInt(1));

System.***out***.println(res.getString(2));

System.***out***.println(res.getString(3));

System.***out***.println(res.getInt(4));

System.***out***.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

}

} **catch** (SQLException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

}

**public** **void** updatePercentage() {

Scanner s = **new** Scanner(System.***in***);

**try** {

Statement stat = connection.createStatement(ResultSet.***TYPE\_SCROLL\_INSENSITIVE***, ResultSet.***CONCUR\_UPDATABLE***);

ResultSet res = stat.executeQuery("select \* from training");

ResultSetMetaData rsmd = res.getMetaData();

**while** (res.next()) {

System.***out***.println(res.getInt(1));

System.***out***.println(res.getString(2));

System.***out***.println(res.getString(3));

System.***out***.println("Enter the Percentage: ");

**int** percent = s.nextInt();

res.updateInt(4, percent);

res.updateRow();

}

} **catch** (SQLException e) {

// **TODO** Auto-generated catch block

e.printStackTrace();

}

}

}