**package** com.dxc.main;

**import** java.util.\*;

**import** com.dxc.dao.\*;

**import** com.dxc.dbcon.\*;

**import** java.sql.\*;

**import** com.dxc.model.\*;

**public** **class** Main

{

**public** Main()

{

}

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

{

TrainingDAO trainingDAO = **new** TrainingDAOImpl();

UsersDAO usersDAO = **new** UsersDAOImpl();

**if**(*loginApp*()) {

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

System.***out***.println("\n\*\*\*\*\*\*\*\*\*\*\*Welcome to Training Assessment App\*\*\*\*\*\*\*\*\*\*");

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");

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

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

**int** choice = 0;

System.***out***.println("Choose one option: ");

choice = sc.nextInt();

**switch**(choice)

{

**case** 1:

System.***out***.println(trainingDAO.getAllRecord());

**break**;

**case** 2:

List<Training> allTrainingRecord = **new** ArrayList<Training>();

allTrainingRecord = trainingDAO.getAllRecord();

Iterator<Training> iterator = allTrainingRecord.iterator();

**while**(iterator.hasNext()) {

Training training = **new** Training();

training = iterator.next();

System.***out***.println(training.toString());

**if**(training.getPercentage()==0) {

System.***out***.print("Please enter the percentage: ");

**int** percentage = sc.nextInt();

trainingDAO.updatePercentage(training.getSapId(),percentage);

}

**else** {

System.***out***.println("Percentages already exist.");

}

}

**break**;

**case** 3:

System.***out***.println("Thank you");

System.*exit*(0);

**break**;

**default**:

System.***out***.println("Invalid Option");

}

}

}

}

**private** **static** **boolean** loginApp() {

UsersDAO usersDAO = **new** UsersDAOImpl();

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

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

String userName = sc.next();

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

String password = sc.next();

**if**(usersDAO.validate(userName, password)) {

**return** **true**;

}

**else** {

System.***out***.println("Invalid Username or Password.");

**return** **false**;

}

}

}

**package** com.dxc.model;

**public** **class** Training

{

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

**private** String empName;

**private** String stream;

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

**public** Training()

{

**super**();

}

**public** Training(**int** sapId, String empName, String stream, **int** percentage)

{

**super**();

**this**.sapId = sapId;

**this**.empName = empName;

**this**.stream = stream;

**this**.percentage = percentage;

}

**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;

}

@Override

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

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

**int** result = 1;

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

result = prime \* result + percentage;

result = prime \* result + sapId;

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

Training other = (Training) obj;

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

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

**return** **false**;

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

**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**;

**return** **true**;

}

@Override

**public** String toString() {

**return** "\nSapId: " + sapId + "\nempName: " + empName + "\nstream: " + stream + "\npercentage: " + percentage

+ "\n";

}

}

**package** com.dxc.model;

**public** **class** Users

{

**private** String userName;

**private** String password;

**public** Users()

{

**super**();

}

**public** Users(String userName, String password)

{

**super**();

**this**.userName = userName;

**this**.password = password;

}

**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;

}

@Override

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

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

**int** result = 1;

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

Users other = (Users) obj;

**if** (password == **null**) {

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

**return** **false**;

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

**return** **false**;

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

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

**return** **false**;

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

**return** **false**;

**return** **true**;

}

@Override

**public** String toString() {

**return** "Users [userName=" + userName + ", password=" + password + "]";

}

}

**package** com.dxc.dao;

**import** com.dxc.model.\*;

**public** **interface** UsersDAO

{

**public** **boolean** validate(String userName, String password);

}

**package** com.dxc.dao;

**import** java.sql.\*;

**import** com.dxc.dbcon.\*;

**import** com.dxc.model.\*;

**public** **class** UsersDAOImpl **implements** UsersDAO {

Connection connection = DBConnection.*getConnection*();

**private** **static** **final** String ***FETCH\_DATA\_USERS*** = "select \* from users where userName=? AND password=?";

**public** UsersDAOImpl()

{

}

**public** **boolean** validate(String userName,String password)

{

**boolean** userExist = **false**;

**try** {

PreparedStatement preparedStatement = connection.prepareStatement(***FETCH\_DATA\_USERS***);

preparedStatement.setString(1, userName);

preparedStatement.setString(2, password);

ResultSet res = preparedStatement.executeQuery();

**if**(res.next()) {

userExist = **true**;

}

**else** {

userExist = **false**;

}

} **catch** (SQLException e) {

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

e.printStackTrace();

}

**return** userExist;

}

}

**package** com.dxc.dao;

**import** com.dxc.model.\*;

**import** java.util.\*;

**public** **interface** TrainingDAO

{

**public** List<Training> getAllRecord();

**public** **void** updatePercentage(**int** sapId,**int** percentage);

}

**package** com.dxc.dao;

**import** java.sql.\*;

**import** java.util.\*;

**import** com.dxc.dbcon.\*;

**import** com.dxc.model.\*;

**public** **class** TrainingDAOImpl **implements** TrainingDAO

{

Connection connection = DBConnection.*getConnection*();

**private** **static** **final** String ***FETCH\_DATA\_TRAINING*** = "select \* from training";

**public** TrainingDAOImpl()

{

}

List<Training> allTrainings = **new** ArrayList<Training>();

**public** List<Training> getAllRecord(){

List<Training> allTrainings = **new** ArrayList<Training>();

**try** {

Statement stat = connection.createStatement();

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

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

Training training = **new** Training();

training.setSapId(res.getInt(1));

training.setEmpName(res.getString(2));

training.setStream(res.getString(3));

training.setPercentage(res.getInt(4));

allTrainings.add(training);

}

} **catch** (SQLException e) {

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

e.printStackTrace();

}

**return** allTrainings;

}

**public** **void** updatePercentage(**int** sapId,**int** percentage) {

**try** {

PreparedStatement preparedStatement = connection.prepareStatement("update training set percentage=? where sapId=?");

preparedStatement.setInt(1, percentage);

preparedStatement.setInt(2, sapId);

preparedStatement.executeUpdate();

} **catch** (SQLException e) {

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

e.printStackTrace();

}

}

}

**package** com.dxc.dbcon;

**import** java.sql.\*;

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

**public** DBConnection() {

}

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

**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;

}

}