B8

Studentview.java

```
package  student;
public class studentview {
   public void printStddetails(String StudentName,String StudentRollno,Integer Mark1,
         Integer Mark2,Integer Mark3)
   {
      System.out.println("Student Details");
      System.out.println("Name:"+StudentName);
      System.out.println("Student Rollno:"+StudentRollno);
      System.out.println("Subject Mark1:"+Mark1);
      System.out.println("Subject Mark2:"+Mark2);
      System.out.println("Subject Mark3:"+Mark3);
      int total = Mark1+Mark2+Mark3;
      float percentage = total/3;
      String grade;
      if(Mark1<35 || Mark2 <35 || Mark3 < 35){
         grade="Fail";
      }else{
      if(percentage >90){
         grade="A";
      }else if(percentage<=90 && percentage >80){
         grade="B";
      }else if(percentage<=80 && percentage >70){
         grade="C";
      }else if(percentage<=70 && percentage >60){
         grade="D";
      }else{
         grade="E";
      }
      }
```

```
        System.out.println("Total:"+total);
        System.out.println("Grade:"+grade);
    }
}
```

Stdmain.java

```
package student;
import java.util.Scanner;
    class studentcontoller
    {
    private Student model;
    private studentview view;
    public  studentcontoller(Student model,studentview view)
    {
        this.model=model;
        this.view=view;
    }
    public void setStudentName(String name)
    {
        model.setName(name);
    }
    public String getStudentName()
    {
        return model.getName();
    }
    public void setStudentRollno(String rollno)
    {
        model.setRollno(rollno);
    }
    public String getStudentRollno()
    {
```

```
    return model.getRollno();
  }
  public void setStudentMark1(Integer mark1)
  {
    model.setMark1(mark1);
  }
  public Integer getMark1()
  {
    return model.getMark1();
  }
  public void setStudentMark2(Integer mark2)
  {
    model.setMark2(mark2);
  }
  public Integer getMark2()
  {
    return model.getMark2();
  }
   public void setStudentMark3(Integer mark3)
  {
    model.setMark3(mark3);
  }
  public Integer getMark3()
  {
    return model.getMark3();
  }
  public void updateView(){
    view.printStddetails(model.getName(),model.getRollno(),model.getMark1(),
model.getMark2(),model.getMark3());
  }
```

```
 }
public class stdMain{
   public static void main(String[] args)
   {
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter the no.of students:");
      int n = sc.nextInt();
      for(int i =0;i<n;i++)
      {
      studentview view = new studentview();
      Student model = AddInfo();
      studentcontoller controller = new  studentcontoller(model,view);
      controller.updateView();
      }
   }
   private static Student AddInfo()
   {
      Student std = new Student();
      Scanner sc = new Scanner(System.in);
      System.out.println("Enter the Name:");
      std.setName(sc.nextLine());
      System.out.println("Enter the Roll No:");
      std.setRollno(sc.nextLine());
      System.out.println("Enter the Mark1:");
      std.setMark1(sc.nextInt());
      System.out.println("Enter the Mark2:");
      std.setMark2(sc.nextInt());
      System.out.println("Enter the Mark3:");
      std.setMark3(sc.nextInt());
      return std;
   }
```

```
}
```

Student.java

```
package student;
public class Student {
   private String StudentName;
   private String StudentRollno;
   private Integer Mark1;
   private Integer Mark2;
   private Integer Mark3;
   public String getName()
   {
      return StudentName;
   }
   public void setName(String name)
   {
      this.StudentName=name;
   }
   public String getRollno()
   {
      return StudentRollno;
   }
   public void setRollno(String rollno)
   {
      this.StudentRollno=rollno;
   }
   public Integer getMark1()
   {
      return Mark1;
   }
   public void setMark1(Integer mark1)
   {
```

```
        this.Mark1=mark1;
    }
   public Integer getMark2()
    {
        return Mark2;
    }
    public void setMark2(Integer mark2)
    {
        this.Mark2=mark2;
    }
   public Integer getMark3()
    {
        return Mark3;
    }
    public void setMark3(Integer mark3)
    {
        this.Mark3=mark3;
    }
}
```

B6

Displaystudent.jsp

```
<%@page import="pckindex.student"%>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>JSP Page</title>
    </head>
    <body>
```

```
        <h1>Student Details</h1>
        <%
            String name=request.getParameter("name");
            int rollno=Integer.parseInt(request.getParameter("rollno"));
            String cls=request.getParameter("cls");
            String sec=request.getParameter("sec");
            student stu=new student();
            stu.setName(name);
            stu.setRollNo(rollno);
            stu.setCls(cls);
            stu.setSec(sec);
            System.out.println("Student Name:"+stu.getName());
            System.out.println("Roll No:"+stu.getRollNO());
            %>
            <p>Name:<%=stu.getName()%></p>
            <p>Roll No:<%=stu.getRollNO()%></p>
            <p>Class:<%=stu.getCls()%></p>
            <p>Roll No:<%=stu.getSec()%></p>
    </body>
</html>
```

Studentgui.jsp

```
<%@page import="pckindex.student"%>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>JSP Page</title>
    </head>
    <body>
        <h1>Enter Student Details</h1>
```

```
        <form action="displaystudent.jsp" method="post">
            Name:<input type="text" name="name">
            </input>
            RollNo:<input type="number" name="rollno">
            </input>
            Class:<input type="text" name="cls">
            </input>
            Section:<input type="text" name="sec">
            </input>
            <input type="submit" value="Submit">
            </input>
        </form>
    </body>
</html>
```

Student.java

```
package pckindex;
public class student {
    private String name;
    private int rollno;
    private String cls;
    private String sec;
    public student(){
    }
    public String getName(){
        return name;
    }
    public void setName(String name){
        this.name=name;
    }
    public int getRollNO(){
        return rollno;
```

```
    }
    public void setRollNo(int rollno){
        this.rollno=rollno;
    }
    public String getCls(){
        return cls;
    }
    public void setCls(String cls) {
        this.cls=cls;
    }
    public String getSec(){
        return sec;
    }
    public void setSec(String sec){
        this.sec=sec;
    }
    }
}
```

Bank b2

```
package bank;
import com.mysql.jdbc.Statement;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.Scanner;
import java.sql.ResultSet;
public class Bank {
    private static final String DB_URL="jdbc:mysql://localhost/bank";
    private static final String USER="root";
    private static final String PASSWORD="";
```

```
public static void main(String args[]){
   try{
       Scanner sc=new Scanner(System.in);
      Connection connection=DriverManager.getConnection(DB_URL,USER,PASSWORD);
      int choice;
      do{
         System.out.println("\nMENU:");
         System.out.println("1.Add New account");
         System.out.println("2.Deposit");
         System.out.println("3.Withdraw");
         System.out.println("4.Display");
         System.out.println("5.Exit");
         System.out.println("Enter your choice");
         choice=sc.nextInt();
         switch(choice){
            case 1:
               addaccount(connection,sc);
               break;
            case 2:
               deposit(connection,sc);
               break;
            case 3:
               withdraw(connection,sc);
               break;
            case 4:
               display(connection);
               break;
            case 5:
               System.out.println("Exiting Program");
               break;
```

```
                default:
                    System.out.println("Invalid Choice!");
                }
            }while(choice!=5);
        }catch(SQLException e){
            System.err.println("Error...:"+e.getMessage());
        }
    }
public static void addaccount(Connection connection,Scanner sc){
        System.out.println("Enter account number:");
        int accno=sc.nextInt();
        System.out.println("Enter accountholder Name");
        String name=sc.next();
        System.out.println("Enter balance:");
        int bal=sc.nextInt();
        try{
            String query="SELECt * FROM bankdb WHERE accno=?";
            PreparedStatement statement=connection.prepareStatement(query);
            statement.setInt(1,accno);
            ResultSet rowsAffected=statement.executeQuery();
            if(rowsAffected.next()){
                System.out.println("Record Already Inserted");
            }else{
                query="INSERT INTO bankdb(accno,accname,bal) VALUES(?,?,?)";
                statement=connection.prepareStatement(query);
                statement.setInt(1,accno);
                statement.setString(2,name);
                statement.setInt(3,bal);
                statement.executeUpdate();
                System.out.println("Record Added Successfully");
                statement.close();
```

```
        }
      }catch(SQLException e){
        System.out.println("Error adding record:"+e.getMessage());
      }
  }
public static void display(Connection connection){
      try{
        String query="SELECT * FROM bankdb";
        Statement statement=(Statement) connection.createStatement();
        ResultSet resultset=statement.executeQuery(query);
        System.out.println("\nRECORDS:");
        while(resultset.next()){
          int no=resultset.getInt("accno");
          String name=resultset.getString("accname");
          int bal=resultset.getInt("bal");
          System.out.println("Accno:"+no+",Name:"+name+",Balance:"+bal);
          }
        resultset.close();
          statement.close();
        }catch(SQLException e){
          System.out.println("Error displaying records:"+e.getMessage());
        }
      }
public static void deposit(Connection connection,Scanner sc){
   try{
       System.out.println("Enter account number:");
        int accno=sc.nextInt();
          String query1="SELECT * FROM bankdb Where accno=?";
          PreparedStatement st1=connection.prepareStatement(query1);
          st1.setInt(1,accno);
          ResultSet rowsAffected1=st1.executeQuery();
```

```
            if(!rowsAffected1.next()){
                System.out.println("No such Account");
             }else{
                 System.out.println("Enter amount:");
                 int bal=sc.nextInt();

                 String query="UPDATE bankdb SET bal=bal+? WHERE accno=?";
                  PreparedStatement statement=connection.prepareStatement(query);
                 statement.setInt(1,bal);
                 statement.setInt(2,accno);
                 statement.executeUpdate();
                 System.out.println("amount is deposited");
                  statement.close();
            }
        }catch(SQLException e){
           System.out.println("Error updating student address:"+e.getMessage());
        }
}
public static void withdraw(Connection connection,Scanner sc) throws SQLException{
    System.out.println("Enter account number:");
    int accno=sc.nextInt();
    String query2="SELECT * FROM bankdb Where accno=?";
            PreparedStatement st2=connection.prepareStatement(query2);
            st2.setInt(1,accno);
            ResultSet rowsAffected1=st2.executeQuery();
            if(!rowsAffected1.next()){
                System.out.println("No such Account");
             }else{
    System.out.println("Enter amount to withdraw:");
    int bal=sc.nextInt();
```

```
try {
   if(bal>0){
      String q="select bal from bankdb where accno=?";
       PreparedStatement st=connection.prepareStatement(q);
       st.setInt(1,accno);
      ResultSet rowsAffected=st.executeQuery();
      if(!rowsAffected.next()){
         System.out.println("No such Account");
      }else{
         int balance = rowsAffected.getInt("bal");
         int rem = balance-bal;
         if(rem<=500){
           System.out.println("min balance wont be maintained current balance is "+balance);
           return;
         }else{
      String query="UPDATE bankdb SET bal=bal-? WHERE accno=?";
     PreparedStatement statement=connection.prepareStatement(query);
     statement.setInt(1,bal);
     statement.setInt(2,accno);
     statement.executeUpdate();
     System.out.println("amount is withdrawed");
     statement.close();
         }
   }
   }
   else{
  System.out.println("withdrawl amount should be greater than 0");
   }
} catch (SQLException e) {
   System.out.println("Error updating student address:"+e.getMessage());
}
```

```
        }
    }
    }
```

B1

```
package studentdatabase;
import java.sql.Statement;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;
import java.util.Scanner;
import java.sql.ResultSet;
public class StudentDatabase {
    private static final String DB_URL = "jdbc:mysql://localhost/studentdetails";
    private static final String USER = "root";
    private static final String PASSWORD = "";
    public static void main(String args[]) {
        try {
            Scanner sc = new Scanner(System.in);
            Connection connection = DriverManager.getConnection(DB_URL, USER, PASSWORD);
            int choice;
            do {
                System.out.println("\nMENU:");
                System.out.println("1.Add New Record");
                System.out.println("2.Display All Record");
                System.out.println("3.Update Record");
                System.out.println("4.Delete Record");
                System.out.println("5.Exit");
                System.out.println("Enter your choice");
                choice = sc.nextInt();
                switch (choice) {
                    case 1:
```

```
                addRecord(connection, sc);
                break;
            case 2:
                displayRecord(connection);
                break;
            case 3:
                updateStudentAddress(connection, sc);
                break;
            case 4:
                deleteRecordByRegNo(connection, sc);
                break;
            case 5:
                System.out.println("Exiting Program");
                break;
            default:
                System.out.println("Invalid Choice!");
        }
    } while (choice != 5);
  } catch (SQLException e) {
    System.err.println("Error...:" + e.getMessage());
  }
}

public static void addRecord(Connection connection, Scanner scanner) {
  System.out.println("Enter Student RegNo:");
  int stRegno = scanner.nextInt();
  System.out.println("Enter Student Name:");
  String stName = scanner.next();
  System.out.println("Enter Student DoB:");
  String stDob = scanner.next();
  System.out.println("Enter Student Address:");
  String stAdd = scanner.next();
  System.out.println("Enter Student Class:");
```

```
    String stClass = scanner.next();
    System.out.println("Enter Student Course:");
    String stCourse = scanner.next();
    try {
        String query = "SELECT * FROM student WHERE regNo=?";
        PreparedStatement statement = connection.prepareStatement(query);
        statement.setInt(1, stRegno);
        ResultSet rowsAffected = statement.executeQuery();
        if (rowsAffected.next()) {
            System.out.println("Record Already Inserted");
        } else {
            query = "INSERT INTO student(regno,name,dob,sadd,sclass,course) VALUES (?,?,?,?,?,?)";
            statement = connection.prepareStatement(query);
            statement.setInt(1, stRegno);
            statement.setString(2, stName);
            statement.setString(3, stDob);
            statement.setString(4, stAdd);
            statement.setString(5, stClass);
            statement.setString(6, stCourse);
            statement.executeUpdate();
            System.out.println("Record Added Successfully");
            statement.close();
        }
    } catch (SQLException e) {
        System.out.println("Error adding record:" + e.getMessage());
    }
}

public static void displayRecord(Connection connection) {
    try {
        String query = "SELECT * FROM student";
        Statement statement = (Statement) connection.createStatement();
        ResultSet resultset = statement.executeQuery(query);
```

```
            System.out.println("\nRECORDS:");
            while (resultset.next()) {
                int no = resultset.getInt("regno");
                String name = resultset.getString("name");
                String dob = resultset.getString("dob");
                String sadd = resultset.getString("sadd");
                String sclass = resultset.getString("sclass");
                String course = resultset.getString("course");
                System.out.println("Rollno:" + no + ",Name:" + name + ",DoB:" + dob + ",Address:" + sadd + ",Class:" +
sclass + ",Course:" + course + "");
            }
            resultset.close();
            statement.close();
        } catch (SQLException e) {
            System.out.println("Error displaying records:" + e.getMessage());
        }
    }

    public static void updateStudentAddress(Connection connection, Scanner scanner) {
        try {
            System.out.println("Enter Student Regno who's address to update:");
            int stRegno = scanner.nextInt();
            System.out.println("Enter student address:");
            String stAdd = scanner.next();
            String query = "UPDATE student SET sadd=? WHERE regno=?";
            PreparedStatement statement = connection.prepareStatement(query);
            statement.setString(1, stAdd);
            statement.setInt(2, stRegno);
            statement.executeUpdate();
            System.out.println("Student address update successfully");
            statement.close();
        } catch (SQLException e) {
            System.out.println("Error updating student address:" + e.getMessage());
```

```
        }
    }

    public static void deleteRecordByRegNo(Connection connection, Scanner scanner) {
        try {
            System.out.println("Enter Student Regno to delete:");
            int stRegno = scanner.nextInt();
            String query = "DELETE FROM student WHERE regNo=?";
            PreparedStatement statement = connection.prepareStatement(query);
            statement.setInt(1, stRegno);
            statement.executeUpdate();
            System.out.println("Student record deleted successfully");
            statement.close();
        } catch (SQLException e) {
            System.out.println("Error deleting the record:" + e.getMessage());
        }
    }
}
```