1. Write a java program that connects to the Employee (ID, FName. LName, Project, Salary) database using JDBC and perform the following operations. i. Display details of all the Employees. ii. Display details of all the employees who work for project "Web Development". iii. Display the IDs of all those employee who have salary above 75,000/- and are in "Web Development". iv. Display the total Number of employees who have salary less than 50,000/-.

```
import java.sql.*;
public class Employee {
static void exe(Statement smt,String Query) {
try {
String f2,f3;
int f1;
ResultSet rs=smt.executeQuery(Query);
while(rs.next())
f1=rs.getInt(1);
double f5 = rs.getDouble(5);
f2=rs.getString(2);
f3=rs.getString(3);
String f4 = rs.getString(4);
System.out.println("-----");
System.out.println("ID :"+f1+"\nName :"+f2+" "+f3+"\nProject :"+f4+"\nSalary :"+f5);
}catch (SQLException e) {
// TODO Auto-generated catch block
e.printStackTrace();
}
public static void main(String[] args) {
// TODO Auto-generated method stub
Connection con=null;
try {
Class.forName("com.mysql .jdbc.Driver");
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/Employee","root","");
System.out.println("connection established..");
System.out.println("-----");
Statement smt=con.createStatement();
System.out.println("");
System.out.println("\n Employee Details \n");
String Query="select * from employee";
exe(smt,Query);
System.out.println("-----");
System.out.println("Employee Details of who are Working in WEB Development");
String Query1="select * from employee where Project='web-development'";
exe(smt,Query1);
```

```
System.out.println("-----");
System.out.println(" 'Employee ID' of who are Working in WEB Development and Salary
above 75000\n");
       Query2="select
                                                   Project='web-development'
String
                       ID
                           from
                                  employee
                                            where
                                                                             and
salary>=75000";
ResultSet rs=smt.executeQuery(Query2);
rs.next();
int id = rs.getInt(1);
System.out.println("Employee ID : "+id);
System.out.println("-----");
System.out.println("Total no Employees who have salary less than 50000");
ResultSet i=smt.executeQuery("select count(*) from employee where salary<50000 ");</pre>
i.next();
int count=i.getInt(1);
System.out.println(count);
con.close();
System.out.println("Connection Close");
} catch (ClassNotFoundException e) {
e.printStackTrace();
} catch (SQLException e) {
// TODO Auto-generated catch block
e.printStackTrace();
}
     }
}
```

2. Write a java program that connects to a Department (Dept_ID, Name, Year_Established, Head_Name, No_of_Employees) database using JDBC and perform the following. i. Display details of all the Departments using Statement Object. ii. Display details of all the Departments which are established in the year 2000 using PreparedStatement object. Read the value from the user and display appropriate messages. iii. Display details of all the Departments by reading Dept_ID and Department Name from the user using PreparedStatement object. iv. Insert a new row using PreparedStatement object. Display the details.

```
import java.sql.*;
import java.util.Scanner;
public class Department {
static void exe(ResultSet rs)
try {
System.out.println("-----");
System.out.println("\n Department Details \n");
while(rs.next())
int a,c,e;
a=rs.getInt(1);
c=rs.getInt(3);
e=rs.getInt(5);
String b = rs.getString(2);
String d = rs.getString(4);
System.out.println(a+"\t"+b+"\t"+c+"\t"+d+"\t"+e);
}catch (SQLException e) {
// TODO Auto-generated catch block
e.printStackTrace();
}
public static void main(String[] args) {
// TODO Auto-generated method stub
Connection con=null;
try {
Class.forName("com.mysql .jdbc.Driver");
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/Department","root","");
System.out.println("connection established..");
Statement smt=con.createStatement();
PreparedStatement ps=null;
ps=con.prepareStatement("insert into department values(?,?,?,?,?)");
Scanner sc=new Scanner(System.in);
```

```
while(true) {
System.out.println("Enter Department ID");
int D id=sc.nextInt();
System.out.println("Enter Department Name:");
String D_Name=sc.next();
System.out.println("Year of establish");
int year=sc.nextInt();
System.out.println("Head Name");
String head=sc.next();
System.out.println("NO of Employees");
int no emp=sc.nextInt();
ps.setInt(1,D id);
ps.setString(2,D_Name);
ps.setInt(3, year);
ps.setString(4,head);
ps.setInt(5,no emp);
ps.executeUpdate();
System.out.println("Values are inserted.....\nDo you want another Record(y/n)");
String s=sc.next();
if(s.equals("n"))
{
break;
}
}
System.out.println("\n-----");
String Query="select * from department";
ResultSet rs=null;
rs=smt.executeQuery(Query);
System.out.println("Details of all the Departments using Statement Object.");
while(rs.next())
{
int a,c,e;
a=rs.getInt(1);
c=rs.getInt(3);
e=rs.getInt(5);
String b = rs.getString(2);
String d = rs.getString(4);
System.out.println(a+"\t"+b+"\t"+c+"\t"+d+"\t"+e);
}
String Q="select * from department where Year Established = ? ";
System.out.println("-----");
ps=con.prepareStatement(Q);
```

```
while(true)
System.out.println("Enter which Year details you want see ");
int year=sc.nextInt();
ps.setInt(1, year);
rs=ps.executeQuery();
exe(rs);
System.out.println("\nDo you want Antother year record (y/n)");
String s = sc.next();
if(s.equals("n"))
{
break;
}
}
//
       exe1(Q,con);
System.out.println("-----");
ps=con.prepareStatement("select * from department where Dept ID = ? and Name = ? ");
while(true)
System.out.println("Enter Department ID you want see the details ");
int d id=sc.nextInt();
System.out.println("Enter the Department Name");
String d name=sc.next();
ps.setInt(1, d id);
ps.setString(2, d name);
rs=ps.executeQuery();
exe(rs);
System.out.println("\nDo you want Antother year record (y/n)");
String s = sc.next();
if(s.equals("n"))
{
break;
}
con.close();
System.out.println("Connection Closed....");
} catch (ClassNotFoundException e) {
```

```
e.printStackTrace();
} catch (SQLException e) {
// TODO Auto-generated catch block
e.printStackTrace();
}
}
```

3. Write a java program that connects to the Movies (ID, Movie_Name, Genre, IMDB_Rating, Year) database using JDBC. Create an Updatable ResultSet and perform the following operations. i. Display details of all the Movies from the table. ii. Display details of 5th Movie from the table. iii. Insert a new row into the table using PreparedStatement and display all the details. iv. Delete a row from the table where the IMDB_Rating is less than 5. v. Update the Genre of a movie with ID as 10 to "Sci-fi".

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.Scanner;
public class Movies {
static void exe(ResultSet rs)
try {
System.out.println("\n Movies Details \n");
System.out.println("-----");
while(rs.next())
{int a,e;
float c;
a=rs.getInt(1);
c=rs.getFloat(4);
e=rs.getInt(5);
String b = rs.getString(2);
String d = rs.getString(3);
System.out.println(a+"\t"+b+"\t"+c+"\t"+d+"\t"+e);
System.out.println("-----");
}
}catch (SQLException e) {
// TODO Auto-generated catch block
e.printStackTrace();
}
}
public static void main(String[] args) {
// TODO Auto-generated method stub
Connection con=null;
try {
Class.forName("com.mysql .jdbc.Driver");
con=DriverManager.getConnection("jdbc:mysql://localhost:3306/movies","root","");
```

```
System.out.println("connection established..");
System.out.println("-----");
Statement smt=con.createStatement(ResultSet.TYPE SCROLL SENSITIVE,ResultSet.CONCUR UPDATABLE);
String Query="select * from movies";
String Query2="DELETE FROM movies WHERE IMDB Rating < 5";
String Query3="UPDATE movies set Genre='Sci fi' where ID=10";
ResultSet rs=null;
rs=smt.executeQuery(Query);
exe(rs);
System.out.println("-----");
System.out.println("Display the 5th moive in Table");
System.out.println("-----"):
rs=smt.executeQuery(Query);
rs.absolute(5);
int a,e;
float c;
a=rs.getInt(1);
c=rs.getFloat(4);
e=rs.getInt(5);
String b = rs.getString(2);
String d = rs.getString(3);
System.out.println(a+"\t"+b+"\t"+c+"\t"+d+"\t"+e);
System.out.println("-----");
/*PreparedStatement ps=null;
ps=con.prepareStatement("insert into movies values(?,?,?,?,?)");
Scanner sc=new Scanner(System.in);
while(true) {
System.out.println("Enter Movie ID");
int D_id=sc.nextInt();
System.out.println("Enter Movie Name:");
String D Name=sc.next();
System.out.println("Enter Genre");
String G=sc.next();
System.out.println("IBM Rating");
float head=sc.nextFloat();
System.out.println("Year of Release.");
int no emp=sc.nextInt();
ps.setInt(1,D id);
ps.setString(2,D Name);
```

```
ps.setString(3, G);
ps.setFloat(4,head);
ps.setInt(5,no emp);
ps.executeUpdate();
System.out.println("Values are inserted..... \nDo you want another Record(y/n)");
String s=sc.next();
if(s.equals("n"))
break;
}
}*/
dele(con,Query2,Query3);
rs=smt.executeQuery(Query);
exe(rs);
con.close();
System.out.println("Connection Closed....");
} catch (ClassNotFoundException e) {
e.printStackTrace();
} catch (SQLException e) {
// TODO Auto-generated catch block
e.printStackTrace();
}
}
private static void dele(Connection con, String query2, String query3) {
// TODO Auto-generated method stub
try {
PreparedStatement ps=null;
ps=con.prepareStatement(query2);
ps.executeUpdate();
ps=con.prepareStatement(query3);
ps.executeUpdate();
} catch (SQLException e) {
// TODO Auto-generated catch block
e.printStackTrace();
}
}
}
```

4. Write a java servlet program to implement a webpage to check if the voter is eligible or not. User will enter his first name, last name, email id and date of birth. Check if he is eligible to vote or not. Validate the page before displaying the details.

```
import java.io.IOException;
import java.io.PrintWriter;
import java.time.LocalDate;
import java.time.Period;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet("/Vote")
public class Vote extends HttpServlet {
protected void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException,
IOException {
// TODO Auto-generated method stub
res.setContentType("text/html");
PrintWriter out = res.getWriter();
String fname=req.getParameter("fname");
String Iname=req.getParameter("Iname");
String email=req.getParameter("email");
String dob=req.getParameter("dob");
LocalDate bd = LocalDate.parse(dob);
LocalDate curDate = LocalDate.now();
int AGE=Period.between(bd, curDate).getYears();
out.println("<h4> Name: "+fname+" "+lname+"</h4>");
out.println("<h4> Email: "+email+"</h4>");
out.println("<h4> date of birth: "+dob+"</h4>");
out.println("<h4> Age: "+AGE+"</h4>");
if(AGE >= 18)
out.println("<h4> Eligible for Vote</h4>");
}else
out.println("<h4> Not Eligible for Vote</h4>");
out.close();
}
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException,
```

```
IOException {
// TODO Auto-generated method stub
doGet(request, response);
}
}
v.html
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Vote Eligiblity</title>
</head>
<body>
<form action="Vote" method="get">
<lable>>First Name :</lable><br>>
<input type="text" name="fname" /><br>
<lable>Last Name :</lable><br>
<input type="text" name="lname" /><br>
<lable>email:</lable><br>
<input type="text" name="email" /><br>
<lable>Date Of Birth</lable><br>
<input type="text" name="dob" placeholder="YYYY-MM-DD"><br/>br>
<input type="submit" value="Submit" />
</form>
</body>
</html>
```

5. Write a java servlet program to calculate the CGPA. Read the USN, Name, SGPA of previous 4 semesters from user in an HTML page. Calculate the CGPA and display the details using a Servlet class.

```
import java.io.IOException;
import java.io.PrintWriter;
import java.util.*;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
/**
* Servlet implementation class CGPA_CAL
*/
@WebServlet("/Cgpa")
```

```
public class Cgpa extends HttpServlet {
protected void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException,
IOException {
      doPost(req,res);
// TODO Auto-generated method stub
}
protected void doPost(HttpServletRequest req, HttpServletResponse res) throws ServletException,
IOException {
      res.setContentType("text/html");
      PrintWriter out = res.getWriter();
      String usn=req.getParameter("usn");
      String name=req.getParameter("name");
      float sem1=Float.parseFloat(req.getParameter("sem1"));
      float sem2=Float.parseFloat(req.getParameter("sem2"));
      float sem3=Float.parseFloat(req.getParameter("sem3"));
      float sem4=Float.parseFloat(req.getParameter("sem4"));
      float cgpa=((sem1+sem2+sem3+sem4)/4);
      out.println("<h2>USN: "+usn+"<br>Name: "+name+"<br>CGPA: "+cgpa+"</h2>");
// TODO Auto-generated method stub
}
}
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<form action="Cqpa" method="post">
<center>
<h1>
<label>Enter usn:</label><br>
<input type="text" name="usn"><br>
<label>Enter name:</label><br>
<input type="text" name="name"> <br></h1>
<label>Enter sem1 sgpa:</label><br>
<input type="text" name="sem1"><br/>br>
```

```
<label>Enter sem2 sgpa:</label><br>
<input type="text" name="sem2"> <br>
<label>Enter sem3 sgpa:</label><br>
<input type="text" name="sem3"><br>
<label>Enter sem4 sgpa:</label><br>
<input type="text" name="sem4"><br>
<input type="submit" name="submit">
</center>
</form>
</body>
</html>
6. Write a java servlet program to implement a simple calculator. Validate the input data and display
appropriate messages
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet("/cal")
public class cal extends HttpServlet {
protected void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException,
IOException {
// TODO Auto-generated method stub
      res.setContentType("text/html");
PrintWriter pw=res.getWriter();
int x= Integer.parseInt(reg.getParameter("fno"));
int y=Integer.parseInt(req.getParameter("sno"));
String ans=req.getParameter("ans");
if(ans.equals("add"))
pw.println("<h3> Addtion = "+(x+y)+"</h3>");
else if(ans.equals("sub"))
pw.println("<h3> Subtraction = "+(x-y)+"</h3>");
else if(ans.equals("mul"))
```

pw.println("<h3> Multiplication = "+(x*y)+"</h3>");

```
}
else if(ans.equals("div"))
pw.println("<h3> Division = "+(x/y)+"</h3>");
else if(ans.equals("exp"))
pw.println("<h3> e^"+x+" = "+(Math.exp(x))+"</h3>");
}}
protected void doPost(HttpServletRequest reg, HttpServletResponse res) throws ServletException,
IOException {
doGet(req, res);
}}
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<form action="cal" method="get">
<label>First Number : </label>
<input type="text" name="fno" /><br><br></
<label>Second Number : </label>
<input type="text" name="sno" /><br>
<input type="radio" name="ans" value="add" />Addition<br>
<input type="radio" name="ans" value="sub" />Subtraction<br>
<input type="radio" name="ans" value="mul" />Multiplication<br>
<input type="radio" name="ans" value="div" />Division<br>
<input type="radio" name="ans" value="exp" />e^x<br>
<input type="submit" value="Submit" /><br>
</form>
</body>
</html>
```

7. Write a java servlet program that reads either area name or phone no. of police station of and displays details of the police station. Use a HTML file to read the input and display the output using a Servlet class. Create police_station table with appropriate fields like Station_ID, Area_Name, Phone_Number and Address.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<form action="Police Station" method="get">
```

```
<label>Area : </label>
<input type="text" name="area"><br>
<label>Phone No : </label>
<input type="text" name="pno"><br>
<input type="submit" value="Submit">
</form>
</body>
</html>
Police_Station.java
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.*;
import java.util.Scanner;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
@WebServlet("/Police_Station")
public class Police_Station extends HttpServlet {
      protected void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException {
             res.setContentType("text/html");
             PrintWriter out = res.getWriter();
             String area=req.getParameter("area");
             String pno=req.getParameter("pno");
```

```
Statement pstmt;
             try {
             Class.forName("com.mysql.cj.jdbc.Driver").newInstance();
             Connection
conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/adv_java","root","gowda@406");
             pstmt = conn.createStatement();
             ResultSet rs=pstmt.executeQuery("SELECT * FROM Police_Station where
Area='"+area+"' or Phone_number='"+pno+"'");
             while(rs.next())
        {
            String f1 = rs.getString(1);
                   String f2 = rs.getString(2);
                   String f3 = rs.getString(3);
                   String f4 = rs.getString(4);
                   String f5 = rs.getString(5);
                   out.println("<h4>\nArea : "+f1+"<br>\nPhone Number : "+f2+"\n<br/>of
Constables: "+f3+"\n<br>No of SI: "+f4+"\n<br>No of Criminals: "+f5);
        }
             conn.close();
             } catch (Exception e) {
             System.out.println("ERROR"+e);
             out.close();
             }
      }
      protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
             // TODO Auto-generated method stub
```

```
doGet(request, response);
}
```

8. Write a java servlet program to insert Employee details like Emp_ID, Employee_Name, Address, Date_of_Birth in Employee table. Create a HTML page to read the appropriate inputs and insert the data in the table. Provide a button to display the details in table format in a new page.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<form action="Emp_Insert" method="get">
<label>Employee ID</label><br>
<input type="text" name="id" /><br>
<label>Employee Name</label><br>
<input type="text" name="name" /><br>
<label>Address</label><br>
<input type="text" name="add" /><br>
<label>Date Of Birth</label><br>
<input type="text" name="dob" /><br><br>
<input type="button" value="Insert" id="insert">
</form><br>
<form action=" Emp display ">
<input type="submit" value="Display" name="display">
</form>
</body>
</html>
Emp_insert.java
import java.sql.*;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
```

```
import javax.servlet.http.HttpServletResponse;
/**
* Servlet implementation class Emp_Insert
*/
@WebServlet("/Emp_Insert")
public class Emp_Insert extends HttpServlet {
protected void doGet(HttpServletRequest req, HttpServletResponse res) throws ServletException,
IOException {
             res.setContentType("text/html");
          PrintWriter out = res.getWriter();
             String id=req.getParameter("id");
             String name=req.getParameter("name");
             String add=req.getParameter("add");
             String dob=req.getParameter("dob");
             Connection con=null;
             try {
                          Class.forName("com.mysql.cj.jdbc.Driver");
      con=DriverManager.getConnection("jdbc:mysql://localhost:3306/adv_java","root","gowda@406
");
                          PreparedStatement ps=(PreparedStatement) con.prepareStatement("insert
into employee_servlet values(?,?,?,?)");
                          ps.setString(1,id);
                          ps.setString(2,name);
```

```
ps.setString(4,dob);
                          ps.executeUpdate();
                          res.sendRedirect("emp.html");
             } catch (ClassNotFoundException e) {
                   e.printStackTrace();
             } catch (SQLException e) {
                   // TODO Auto-generated catch block
                   e.printStackTrace();
             }
      }protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
             // TODO Auto-generated method stub
             doGet(request, response);
      }
}
Emp_display.java
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
```

ps.setString(3,add);

```
import java.sql.ResultSet;
import java.sql.Statement;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
/**
* Servlet implementation class Employee
*/
@WebServlet("/Emp display")
public class Emp_display extends HttpServlet {
      protected void doGet(HttpServletRequest req, HttpServletResponse res) throws
ServletException, IOException {
            // TODO Auto-generated method stub
            res.setContentType("text/html");
          PrintWriter out = res.getWriter();
           Statement pstmt;
          try {
            Class.forName("com.mysql.cj.jdbc.Driver").newInstance();
            Connection
conn=DriverManager.getConnection("jdbc:mysql://localhost:3306/adv_java","root","gowda@406");
            pstmt = conn.createStatement();
              ResultSet rs=pstmt.executeQuery("SELECT * FROM employee_servlet");
              out.println("<html>"+"<head>"+"<body>"+"<h1>Employee Details</h1>"+"<table
border=1>Employee IDEmployee Name"+
```

```
"AddressDate Of Birth");
                                 while(rs.next())
                                            {
                                                           int f1=rs.getInt(1);
                                            String f2 = rs.getString(2);
                                                           String f3 = rs.getString(3);
                                                           String f4 = rs.getString(4);
              out.println(""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+""+"<
>"+"");
                                            }
                                   conn.close();
                                   out.println(""+"</body>"+"</html>");
                        } catch (Exception e) {
                             System.out.println("ERROR"+e);
                                               out.close();
              }
              }
              protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException {
                             // TODO Auto-generated method stub
                             doGet(request, response);
              }
}
```

9. Write a JSP program to accept the 5 subject marks entered and display his/her grade to the browser. Department has set the grade for the subject Java as follows: Above 90=S, 80-89=A, 70-79=B, 60-69=C, 50-59=D, Below 50=FAIL.

```
<!DOCTYPE html>
<html>
<head>
<meta charset="ISO-8859-1">
<title>Insert title here</title>
</head>
<body>
<form action="Dept.jsp">
<h4 align="center">Enter the Marks</h4><br>
<label>0S
           :</label><br>
<input type="text" name="os" /><br>
<label>DBS :</label><br>
<input type="text" name="dbs" /><br>
<label>JAVA :</label><br>
<input type="text" name="java" /><br>
<label>AA :</label><br>
<input type="text" name="aa" /><br>
<label>AI :</label><br>
<input type="text" name="ai" /><br><br>
<input type="submit" value="Submit" />
</form>
</body>
</html>
Dept.jsp
    <%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
        pageEncoding="ISO-8859-1"%>
    <!DOCTYPE html>
    <html>
    <head>
    <meta charset="ISO-8859-1">
    <title>Insert title here</title>
    </head>
    <body>
    <%@ page import="java.util.*" %>
     int os=Integer.parseInt(request.getParameter("os"));
    int dbs=Integer.parseInt(request.getParameter("dbs"));
    int java=Integer.parseInt(request.getParameter("java"));
    int aa=Integer.parseInt(request.getParameter("aa"));
    int ai=Integer.parseInt(request.getParameter("ai"));
    out.println("<h1>Student Total Grade </h1>");
```

```
<% float obtain;</pre>
if(os>=50&&dbs>=50&&java>=50&&aa>=50&&ai>=50){
       obtain=os+dbs+java+aa+ai;
       float avg=obtain/5;
       out.println("<h1> Your Average :"+avg+"</h1>");
             if(avg>=50 && avg<=59)
             {
                    out.println("<h1>Grade : D</h1>");
             }else{
                    if(avg>=60 && avg<=69)
                           out.println("<h1>Grade : C</h1>");
             else{
                    if(avg>=70 && avg<=79)
                           out.println("<h1>Grade : B</h1>");
                    }else{
                           if(avg>=80 && avg<=89)
                           {
                                 out.println("<h1>Grade : A</h1>");
                           }
                    else{
                           if(avg>=90 && avg<=100)
                           {
                                 out.println("<h1>Grade : S</h1>");
                           }
                    }
             }}}
                           if(java>=50 && java<=59)
             {
                    out.println("<h1>JAVA Grade : D</h1>");
             }else{
                    if(java>=60 && java<=69)
                           out.println("<h1>JAVA Grade : C</h1>");
             else{
                    if(java>=70 && java<=79)
                           out.println("<h1>JAVA Grade : B</h1>");
                    }else{
                           if(java>=80 && java<=89)
                           {
                                 out.println("<h1>JAVA Grade : A</h1>");
                    else{
                           if(java>=90 && java<=100)
                                 out.println("<h1>JAVA Grade : S</h1>");
                           else{
```

```
out.println("<h1>Fail </h1>");
}

else{
    out.println("Your any One or More Subject Average is less than 50 </h1>");
    out.println("<h1>Fail</h1>");
}

</body>
</html>
```

- 10. Write a JSP program that takes the user's name and age from a form. Echo back the name and age along with a message stating the price of movie tickets. The price is determined by the age passed to the JSP.
 - If the age is greater than 62, the movie ticket price is Rs. 50.
 - If the user is less than 10 years old, the price is Rs. 30.
 - For everyone else, the price is Rs. 80.

```
<!DOCTYPE html>
   <html>
   <head>
   <meta charset="ISO-8859-1">
   <title>Insert title here</title>
   </head>
   <body>
   <form action="Titket.jsp" method="get">
   <label>User Name :</label>
   <input type="text" name="uname"/><br>
   <label>Age :</label>
   <input type="text" name="age"/>
   <br><br><br>>
   <input type="submit" value="Submit" />
   </form>
   </body>
</html>
```

```
<%@ page language="java" contentType="text/html; charset=ISO-8859-1"</pre>
       pageEncoding="ISO-8859-1"%>
   <!DOCTYPE html>
   <html>
   <head>
   <meta charset="ISO-8859-1">
   <title>Insert title here</title>
   <body>
   <%
   String name=request.getParameter("uname");
   int age=Integer.parseInt(request.getParameter("age"));
   if(age>=62){
          out.println("<h1>Name : "+name+"</h1><br>");
          out.println("<h1>The age is : "+age+"</h1><br>");
          out.println("<h1>The movie ticket price is Rs. 50</h1>");
   }else{
          if(age<=10){
                 out.println("<h1>Name : "+name+"</h1><br>");
                 out.println("<h1>The age is : "+age+"</h1><br>");
                 out.println("<h1>The movie ticket price is Rs. 30</h1>");
          }
          else{
                 out.println("<h1>Name : "+name+"</h1><br>");
                 out.println("<h1>The age is : "+age+"</h1><br>");
                 out.println("<h1>The movie ticket price is Rs. 80</h1>");
          }
   }
   %>
   </body>
</html>
```