

PART B

5)Write a Servlet Program to perform Insert, update and View operations on Employee Table

Employee

Name	Password	Email	Country
------	----------	-------	---------

Add New Employee

Name:

Password:

Email:

Country:

[view employees](#)

Employees List

Id	Name	Password	Email	Country	Edit
63	Amit Kumar	amtknj45	amitkumar@gmail.com	India	edit
61	Rahul Kumar	rahul4000	rahulkk@gmail.com	India	edit
62	Sonoo Jaiswal	sonoobsk	sonoojaiswal1987@gmail.com	India	edit
44	adarsh kumar	kkkkkk	adarsh232@gmail.com	India	edit

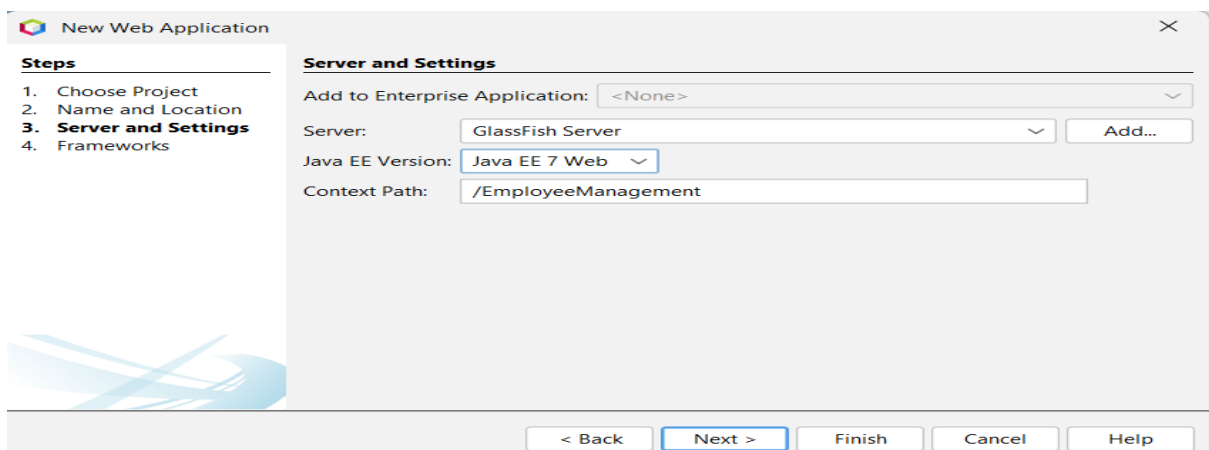
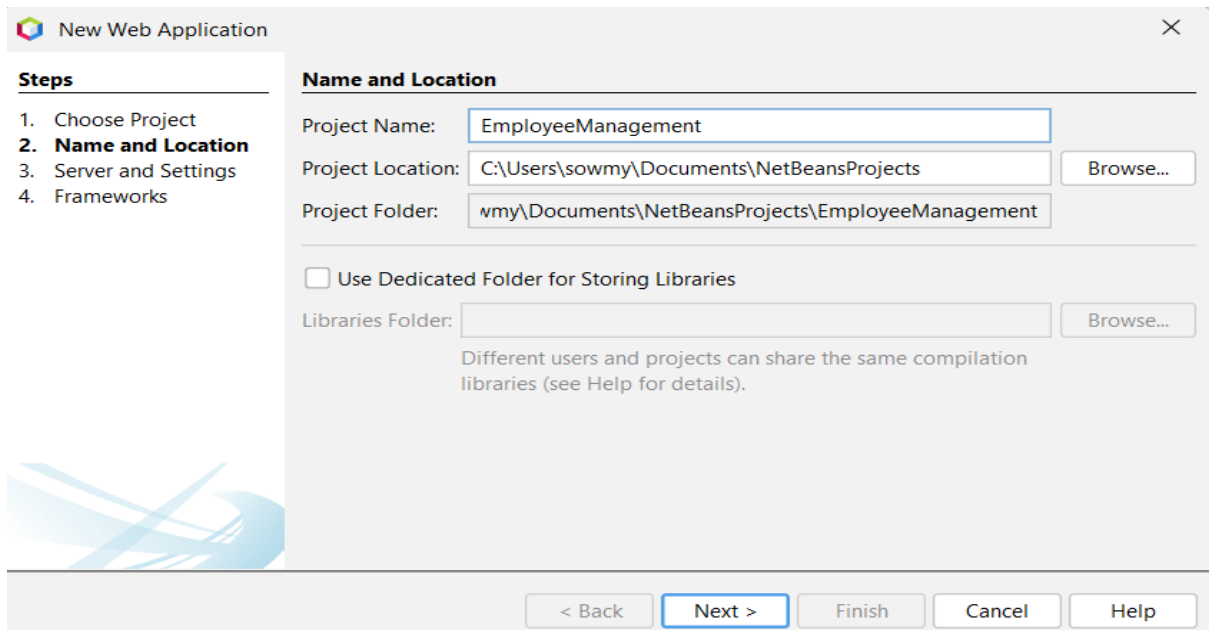
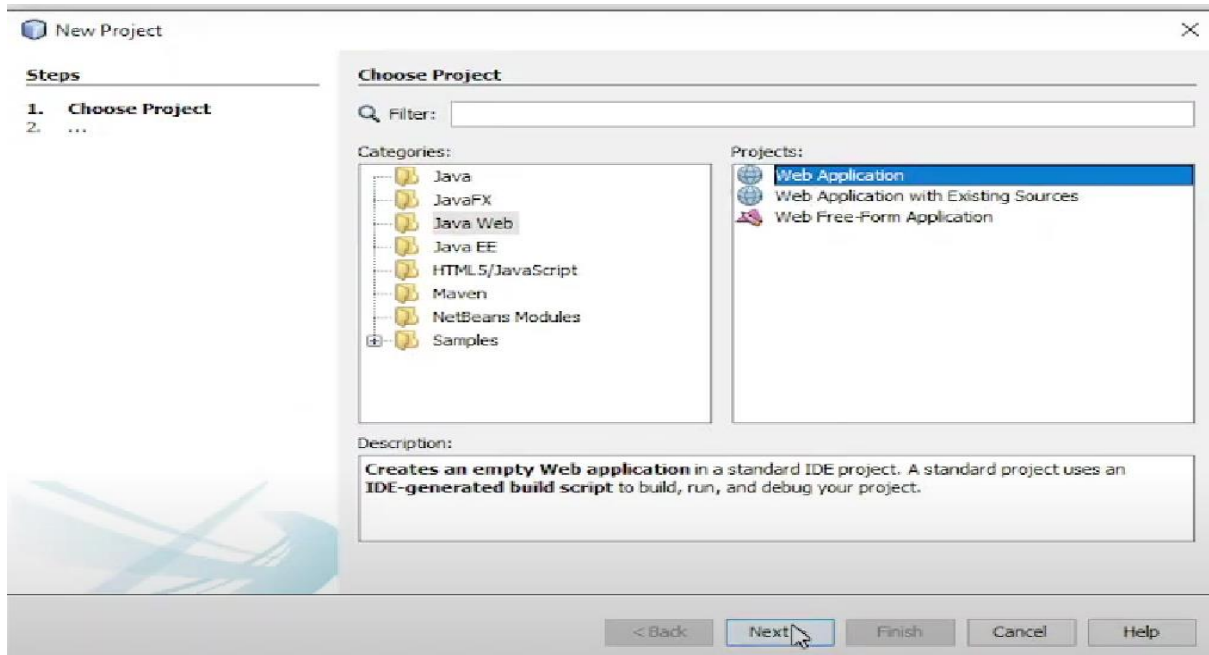
Update Employee

Name:

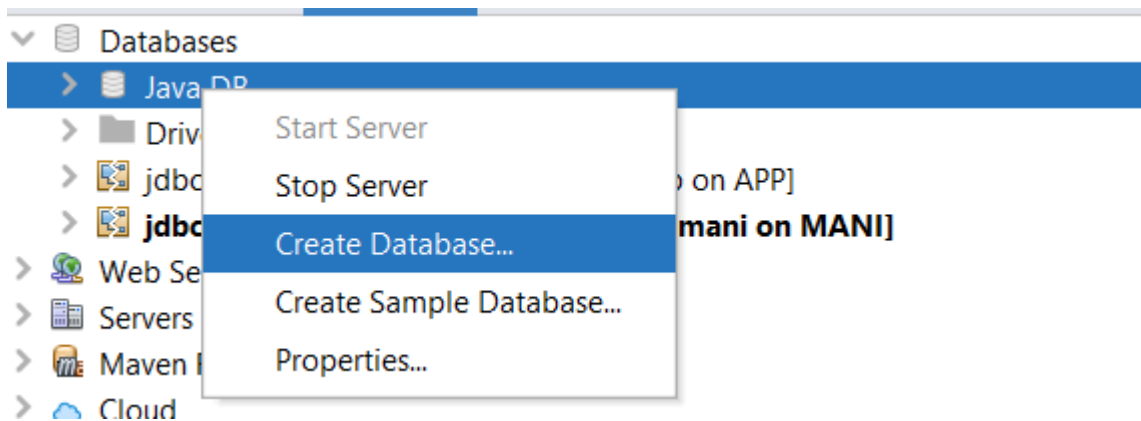
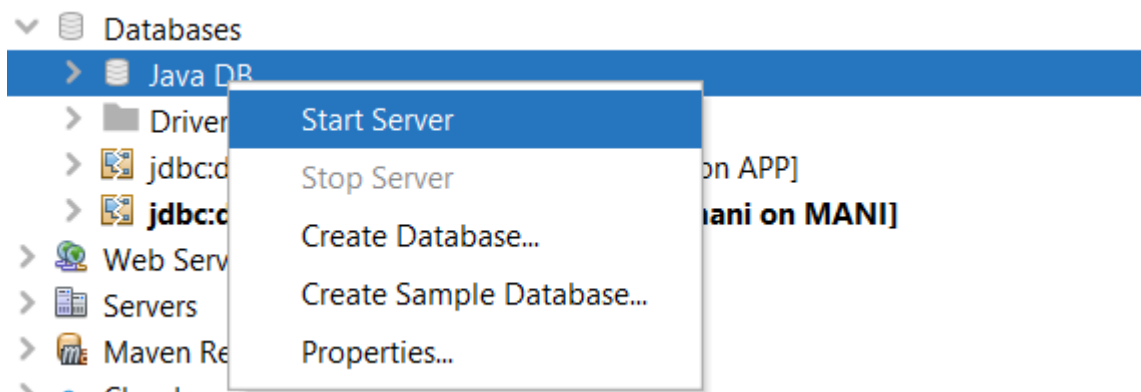
Password:

Email:

Country:



Next to create database:

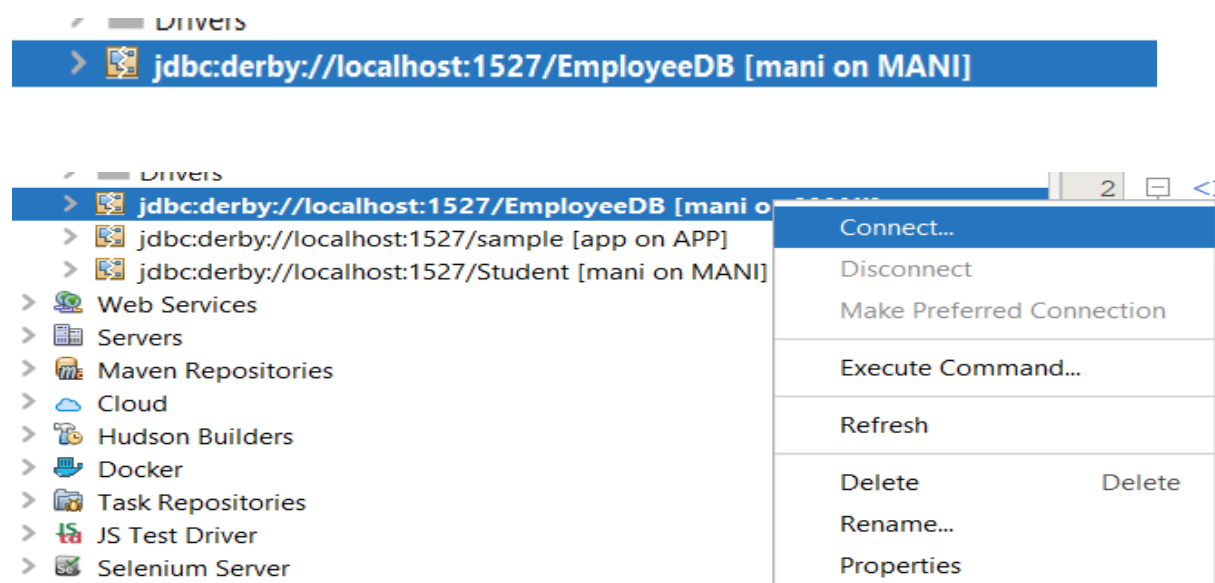


A screenshot of the 'Create Java DB Database' dialog box. It contains the following fields and buttons:

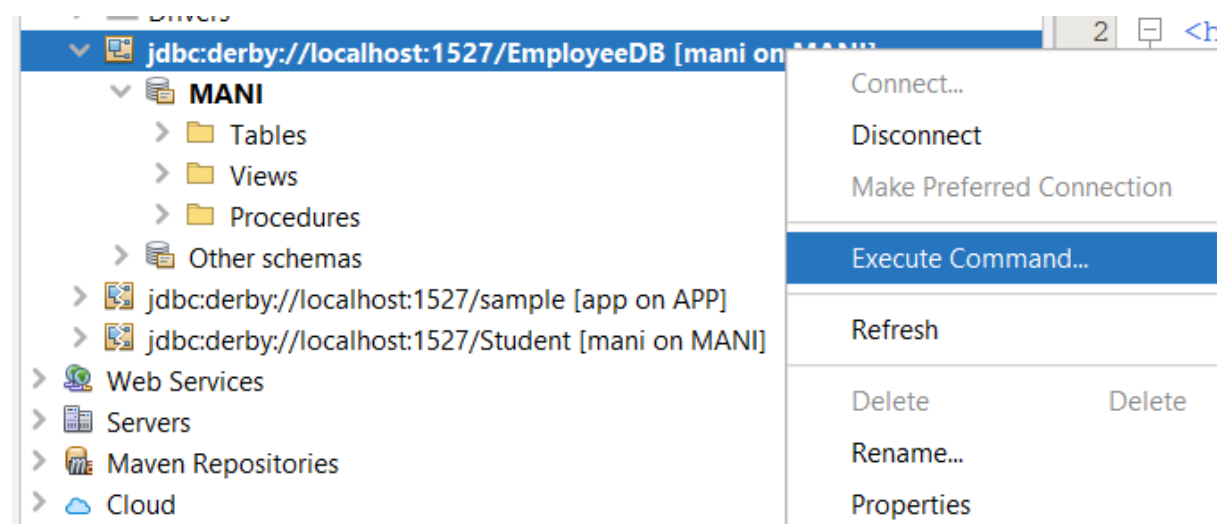
- Database Name:** EmployeeDB
- User Name:** mani
- Password:** (masked with dots)
- Confirm Password:** (masked with dots)
- Database Location:** C:\Users\sowmy\.netbeans-derby
- Buttons:** OK, Cancel, and Properties...

Password:abcd1234

Database is created.



To create table:



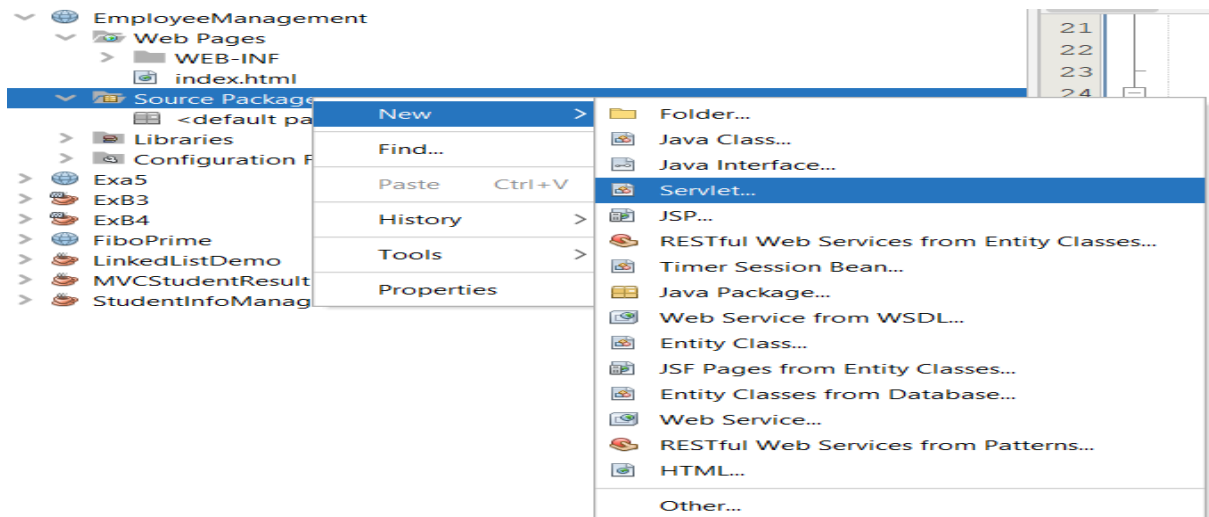
```
Connection: jdbc:derby://localhost:1527/EmployeeDB [mani on MANI]
1 CREATE TABLE EMPLOYEE (
2   Id INTEGER PRIMARY KEY GENERATED ALWAYS AS IDENTITY (START WITH 1, INCREMENT BY 1),
3   EName VARCHAR(25),
4   Password VARCHAR(25),
5   Email VARCHAR(25),
6   Country VARCHAR(25)
7 );
8 |
```

Now table is created.

index.html

```
<html>
<head>
  <title>Add Employee</title>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
  <h1>Add Employee</h1>
  <form method="POST" action="AddEmployee">
    <table>
      <tr>
        <td>Name</td>
        <td><input type="text" name="ename"></td>
      </tr>
      <tr>
        <td>Password</td>
        <td><input type="password" name="password"></td>
      </tr>
      <tr>
        <td>Email</td>
        <td><input type="email" name="email"></td>
```

```
</tr>
<tr>
  <td>Country</td>
  <td><select name="country">
    <option>India</option>
    <option>Nepal</option>
    <option>China</option>
    <option>Sri Lanka</option>
  </select>
</td>
</tr>
<tr>
  <td></td>
  <td><input type ="submit" value="Save Employee"></td>
</tr>
</table>
</form>
<a href="ViewEmployee">ViewEmployee</a>
</body>
</html>
```



The 'New Servlet' dialog box is shown in the 'Name and Location' step. The 'Steps' list on the left indicates: 1. Choose File Type, 2. Name and Location (current step), 3. Configure Servlet Deployment. The 'Name and Location' section contains the following fields: 'Class Name' with the value 'AddEmployee', 'Project' with 'EmployeeManagement', 'Location' with 'Source Packages', and 'Package' with 'com'. The 'Created File' field shows the full path: 'nents\NetBeansProjects\EmployeeManagement\src\java\com\AddEmployee.java'. At the bottom, there are navigation buttons: '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

The 'New Servlet' dialog box is shown in the 'Configure Servlet Deployment' step. The 'Steps' list on the left indicates: 1. Choose File Type, 2. Name and Location, 3. Configure Servlet Deployment (current step). The 'Configure Servlet Deployment' section contains the following fields and options: a checkbox 'Add information to deployment descriptor (web.xml)' which is checked, 'Class Name' with 'com.AddEmployee', 'Servlet Name' with 'AddEmployee', and 'URL Pattern(s)' with '/AddEmployee'. Below these is a table for 'Initialization Parameters' with columns 'Name' and 'Value'. To the right of the table are buttons for 'New', 'Edit...', and 'Delete'. At the bottom, there are navigation buttons: '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

AddEmployee.java

```
package com;

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

public class AddEmployee extends HttpServlet {
    protected void processRequest(HttpServletRequest request,
        HttpServletResponse response) throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()) {
            String ename=request.getParameter("ename");
            String password=request.getParameter("password");
            String email =request.getParameter("email");
            String country=request.getParameter("country");
            Class.forName("org.apache.derby.jdbc.ClientDriver");
```


Connection

```
con=DriverManager.getConnection("jdbc:derby://localhost:1527/EmployeeDB", "mani", "abcd1234");
```

```
Statement stmt=con.createStatement();
```

```
String sql="INSERT INTO MANI.EMPLOYEE (ENAME, PASSWORD, EMAIL, COUNTRY)VALUES ('"+ename+"', '"+password+"', '"+email+"', '"+country+"')";
```

```
int rcount= stmt.executeUpdate(sql);
```

```
stmt.close();
```

```
con.close();
```

```
out.println("<!DOCTYPE html>");
```

```
out.println("<html>");
```

```
out.println("<head>");
```

```
out.println("<title>Add Employee</title>");
```

```
out.println("</head>");
```

```
out.println("<body>");
```

```
if(rcount==1){
```

```
    out.println("<h1>Record Saved </h1>");
```

```
}else{
```

```
    out.println("<h1>There was an error! </h1>");
```

```
}
```

```
out.println("<a href=\"index.html\">Home</a>");
```

```
out.println("</body>");
```

```
out.println("</html>");
```

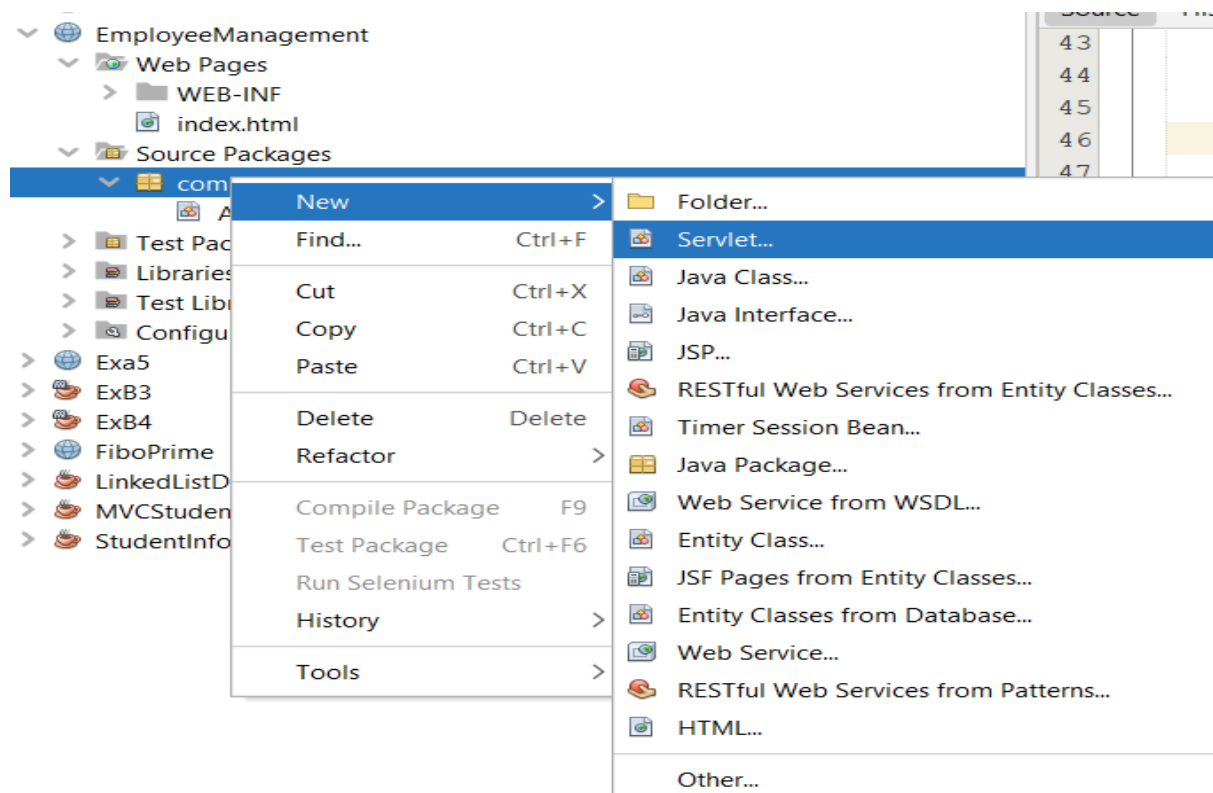
```
} catch (ClassNotFoundException ex) {
```

```
    Logger.getLogger(AddEmployee.class.getName()).log(Level.SEVERE, null, ex);
```

```
} catch (SQLException ex) {
```

```
    Logger.getLogger(AddEmployee.class.getName()).log(Level.SEVERE, null, ex);
```

```
}  
  
}  
  
}
```



New Servlet

Steps

1. Choose File Type
- 2. Name and Location**
3. Configure Servlet Deployment

Name and Location

Class Name:

Project:

Location:

Package:

Created File:

< Back **Next >** Finish Cancel Help

ViewEmployee.java

package com;

import java.io.IOException;

import java.io.PrintWriter;

import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.ResultSet;

import java.sql.SQLException;

import java.sql.Statement;

import java.util.logging.Level;

import java.util.logging.Logger;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

```

import javax.servlet.http.HttpServletResponse;

public class ViewEmployee extends HttpServlet {

protected void processRequest(HttpServletRequest request,
HttpServletResponse response) throws ServletException, IOException {

    response.setContentType("text/html;charset=UTF-8");

    try ( PrintWriter out = response.getWriter()) {

        Class.forName("org.apache.derby.jdbc.ClientDriver");

        Connection
con=DriverManager.getConnection("jdbc:derby://localhost:1527/EmployeeDB
", "mani", "abcd1234");

        Statement stmt=con.createStatement();

        String sql="SELECT * FROM MANI.EMPLOYEE";

        ResultSet rs=stmt.executeQuery(sql);

        out.println("<!DOCTYPE html>");

        out.println("<html>");

        out.println("<head>");

        out.println("<title>Servlet ViewEmployee</title>");

        out.println("</head>");

        out.println("<body>");

        out.println("<h1>Employees List</h1>");

        out.println("<table border=\"2\">");

        out.println("<tr>");

        out.println("<th>Id</th><th>Name</th><th>Password</th><th>Email</th><th>Country</th><th>Edit</th>");

        out.println("</tr>");

        while(rs.next()){

            out.println("<tr>");

```

```

        out.println("<td>" + rs.getString("ID") + "</td>");
        out.println("<td>" + rs.getString("ENAME") + "</td>");
        out.println("<td>" + rs.getString("PASSWORD") + "</td>");
        out.println("<td>" + rs.getString("EMAIL") + "</td>");
        out.println("<td>" + rs.getString("COUNTRY") + "</td>");

        out.println("<td> <a
href=\"UpdateEmployee?id=" + rs.getString("ID") + "\">Edit</a></td>");
        out.println("</tr>");
    }

    out.println("</table>");

    out.println("<a href=\"index.html\">Add new Record</a>");
    out.println("</body>");
    out.println("</html>");

    stmt.close();
    con.close();

    } catch (ClassNotFoundException ex) {

        Logger.getLogger(ViewEmployee.class.getName()).log(Level.SEVERE,
null, ex);

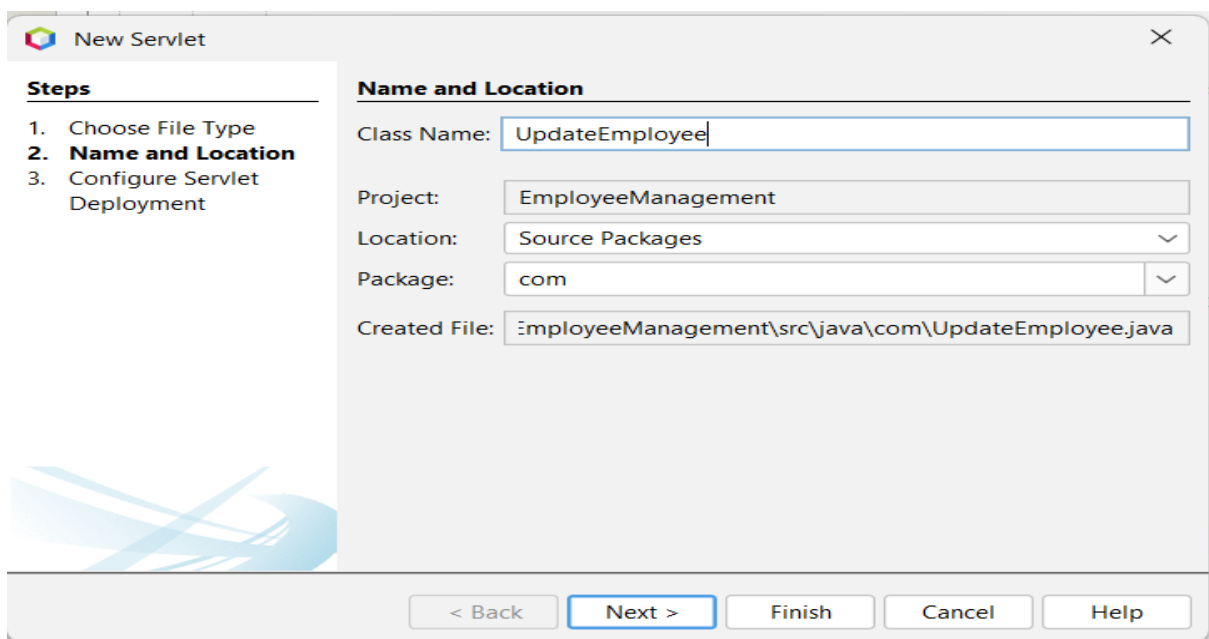
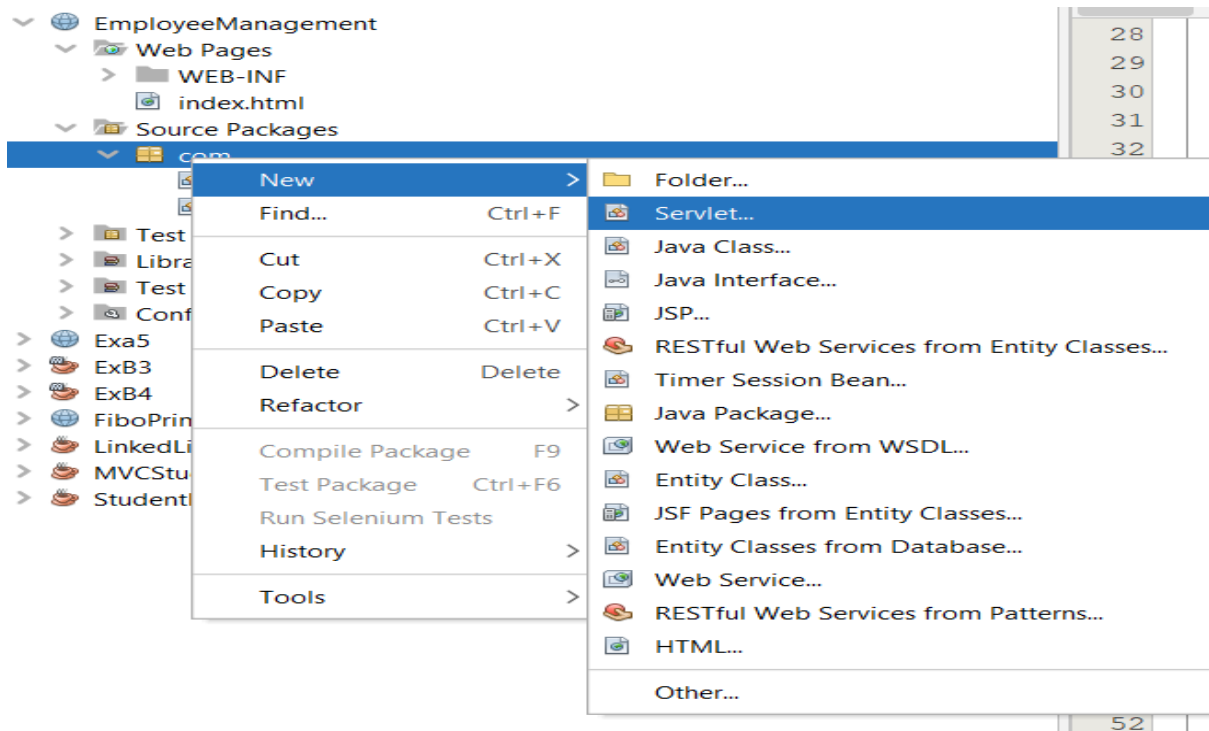
    } catch (SQLException ex) {

        Logger.getLogger(ViewEmployee.class.getName()).log(Level.SEVERE,
null, ex);

    }

    }
}

```



UpdateEmployee.java

```
package com;
```

```
import java.io.IOException;
```

```

import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

public class UpdateEmployee extends HttpServlet {

    protected void processRequest(HttpServletRequest request,
    HttpServletResponse response) throws ServletException, IOException {

        response.setContentType("text/html;charset=UTF-8");

        try ( PrintWriter out = response.getWriter()) {

            int id=Integer.parseInt(request.getParameter("id"));

            Class.forName("org.apache.derby.jdbc.ClientDriver");

            Connection
con=DriverManager.getConnection("jdbc:derby://localhost:1527/EmployeeDB
", "mani", "abcd1234");

            Statement stmt=con.createStatement();

            String sql="SELECT * FROM MANI.EMPLOYEE WHERE ID="+id;

            ResultSet rs=stmt.executeQuery(sql);

            rs.next();

```

```
out.println("<!DOCTYPE html>");
out.println("<html>");
out.println("<head>");
out.println("<title>Servlet UpdateEmployee</title>");
out.println("</head>");
out.println("<body>");

out.println("<h1>Update Employee</h1>");
out.println("<form method=\"POST\" action=\"SaveEmployee\">");
out.println(" <input type=\"hidden\" name=\"id\" value=\""+id+"\">");
out.println("<table>");
out.println("<tr>");
out.println("<td>Name</td>");
out.println("<td><input type =\"text\" name=\"ename\" value="+rs.getString("ENAME")+"></td>");
out.println("</tr>");
out.println("<tr>");
out.println("<td>Password</td>");
out.println("<td><input type =\"password\" name=\"password\" value="+rs.getString("PASSWORD")+" ></td>");
out.println("</tr>");
out.println("<tr>");
out.println("<td>Email</td>");
out.println("<td><input type =\"email\" name=\"email\" value="+rs.getString("EMAIL")+"></td>");
out.println("</tr>");
out.println("<tr>");
out.println("<td>Country</td>");
```

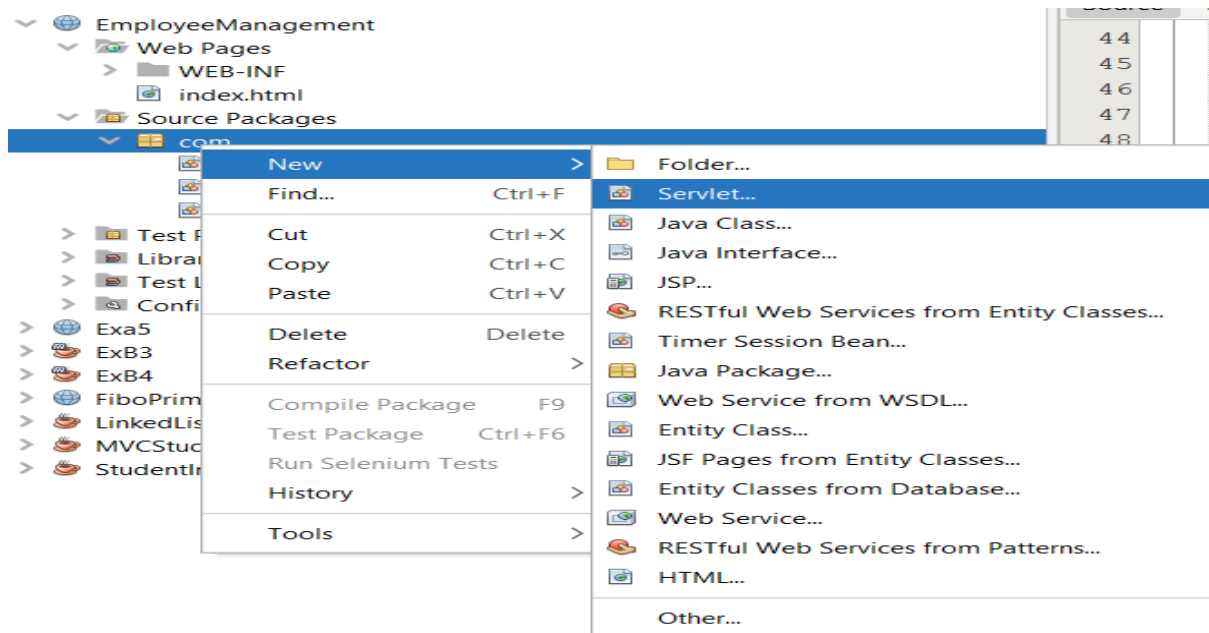


```

out.println("<td><select name=\"country\">");
String sel=rs.getString("Country").equals("India")?"Selected":"";
out.println("<option "+sel+">India</option>");
sel=rs.getString("Country").equals("Nepal")?"Selected":"";
out.println("<option "+sel+">Nepal</option>");
sel=rs.getString("Country").equals("China")?"Selected":"";
out.println("<option "+sel+">China</option>");
sel=rs.getString("Country").equals("Sri Lanka")?"Selected":"";
out.println("<option "+sel+">Sri Lanka</option>");
out.println("</select>");
out.println("</td>");
out.println("</tr>");
out.println("<tr>");
out.println("<td></td>");
out.println("<td><input type=\"submit\" value=\"Edit & Save\"></td>");
out.println("</tr>");
out.println("</table>");
out.println("</form>");
out.println(" <a href=\"ViewEmployee\">ViewEmployee</a>");
    out.println("</body>");
    out.println("</html>");
} catch (ClassNotFoundException ex) {
    Logger.getLogger(UpdateEmployee.class.getName()).log(Level.SEVERE,
null, ex);
} catch (SQLException ex) {
    Logger.getLogger(UpdateEmployee.class.getName()).log(Level.SEVERE,
null, ex);

```

```
}  
  
}  
  
}
```



New Servlet

Steps

1. Choose File Type
- 2. Name and Location**
3. Configure Servlet Deployment

Name and Location

Class Name:

Project:

Location:

Package:

Created File:

< Back **Next >** Finish Cancel Help

SaveEmployee.java

```
package com;
```

```
import java.io.IOException;  
import java.io.PrintWriter;  
import java.sql.Connection;  
import java.sql.DriverManager;  
import java.sql.SQLException;  
import java.sql.Statement;  
import java.util.logging.Level;  
import java.util.logging.Logger;  
import javax.servlet.ServletException;  
import javax.servlet.http.HttpServlet;  
import javax.servlet.http.HttpServletRequest;
```

```

import javax.servlet.http.HttpServletResponse;

public class SaveEmployee extends HttpServlet {

    protected void processRequest(HttpServletRequest request,
    HttpServletResponse response) throws ServletException, IOException {

        response.setContentType("text/html;charset=UTF-8");

        try ( PrintWriter out = response.getWriter()) {

            String id=request.getParameter("id");

            String ename=request.getParameter("ename");

            String password=request.getParameter("password");

            String email =request.getParameter("email");

            String country=request.getParameter("country");

            Class.forName("org.apache.derby.jdbc.ClientDriver");

            Connection
con=DriverManager.getConnection("jdbc:derby://localhost:1527/EmployeeDB
", "mani", "abcd1234");

            Statement stmt=con.createStatement();

            String sql="UPDATE MANI.EMPLOYEE SET
ENAME='"+ename+"',PASSWORD='"+password+"',EMAIL='"+email+"',COUNTR
Y='"+country+"' WHERE ID="+id;

            int rcount= stmt.executeUpdate(sql);

            stmt.close();

            con.close();

            out.println("<!DOCTYPE html>");

            out.println("<html>");

            out.println("<head>");

            out.println("<title>Servlet SaveEmployee</title>");

```

```
        out.println("</head>");
        out.println("<body>");
        if(rcount==1){
            out.println("<h1>Record Saved </h1>");
        }else{
            out.println("<h1>There was an error! </h1>");
        }
        out.println(" <a href=\"ViewEmployee\">ViewEmployee</a>");
        out.println("</body>");
        out.println("</html>");
    } catch (ClassNotFoundException ex) {
        Logger.getLogger(SaveEmployee.class.getName()).log(Level.SEVERE,
null, ex);
    } catch (SQLException ex) {
        Logger.getLogger(SaveEmployee.class.getName()).log(Level.SEVERE,
null, ex);
    }
}
}
```