Neeraj Appari S073

Aim:

Write a servlet based program to demonstrate CRUD operations.

Html

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Department of Computer Science

Practical - 06

Aim: Write a servlet based program to demonstrate CRUD Operations

Write ups
* Steps of servlet + jdbc

1) Open Netbeans IDE, Select file → New Project
2) Select Java Web → Web Application, then click on Next.
3) Give a name to your project and click on Next
4) and then click finish
5) Creation of database and table in Mysql.Derby database
6) Implementation of required web pages
7) Creation of Java Servlet program with JDBC connection
8) To use this class method, create an object in java servlet program
9) Get the data from HTML file

```html
<!DOCTYPE html>
<!--
To change this license header, choose License Headers in Project Properties.
To change this template file, choose Tools | Templates
and open the template in the editor.
-->
<html>
    <head>
        <title>TODO supply a title</title>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
    </head>
    <body>
        <div style="border: 5px outset yellowgreen;background-color: blue;text-align: center;">Neeraj Appari S073</div>

        <div style="border: 5px outset red;background-color: lightblue;text-align: center;">Add Record</div>


        <form action="p6addi" method = "post">
```

```html
      Enter ID: <input type="text" name="ID" value=""  />
</br>
      Enter Name: <input type="text" name="name" value=""/></br>
      Enter Quantity: <input type="text" name="Quantity" value="" /> </br>
        <input type="submit" value="Submit" />
    </form>
    <div style="border: 5px outset red;background-color: lightblue;text-align: center;">Update Record</div>
    <form action="upd" method = "post">
      Enter ID: <input type="text" name="ID" value=""  />
</br>
      Enter Name: <input type="text" name="name" value=""/></br>
      Enter Quantity: <input type="text" name="Quantity" value="" /> </br>
        <input type="submit" value="Submit" />
    </form>
    <div style="border: 5px outset red;background-color: lightblue;text-align: center;">Search Record</div>
    <form action="p6ser" method = "post">
      Enter ID: <input type="text" name="id" value=""  />
</br>
```

```html
        <input type="submit" value="Submit" />

    </form>

    <div style="border: 5px outset red;background-color:
lightblue;text-align: center;">Delete Record</div>

    <form action="p6del" method = "post">

     Enter ID: <input type="text" name="ID" value=""  />
</br>

        <input type="submit" value="Submit" />

    </form>


    </body>
</html>
```

Java

1)

```java
/*
 * To change this license header, choose License Headers in
Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */


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

```java
import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.Statement;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;


/**
 *
 * @author LAXMINARAYANRO
 */
public class p6addi extends HttpServlet {


    /**
     * Processes requests for both HTTP <code>GET</code>
and <code>POST</code>
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
```

```java
    * @throws ServletException if a servlet-specific error
occurs

    * @throws IOException if an I/O error occurs

    */

   protected void processRequest(HttpServletRequest
request, HttpServletResponse response)

        throws ServletException, IOException {

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

    PrintWriter out = response.getWriter();


        int Id = Integer.parseInt(request.getParameter("ID"));

        String first_name = request.getParameter("name");

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

                try
    {


Class.forName("org.apache.derby.jdbc.EmbeddedDriver");//
driver class name

        // database path

        Connection cn =
DriverManager.getConnection("jdbc:derby://localhost:1527/
ccpcpro");
```

```java
        Statement st = cn.createStatement();

        String str = "insert into p6 values(
"+Id+",'"+first_name+"',"+Quantity+")";

        st.executeUpdate(str);


    }

    catch(Exception e)

    {

     out.println(e.getMessage());

    }

     out.println("<div style=\"border: 5px outset
red;background-color: lightblue;text-align: center;\">Record
Added SuccesFully</div>");


    }


    // <editor-fold defaultstate="collapsed" desc="HttpServlet
methods. Click on the + sign on the left to edit the code.">

    /**

     * Handles the HTTP <code>GET</code> method.

     *
```

```java
     * @param request servlet request

     * @param response servlet response

     * @throws ServletException if a servlet-specific error
occurs

     * @throws IOException if an I/O error occurs

     */

    @Override

    protected void doGet(HttpServletRequest request,
HttpServletResponse response)

            throws ServletException, IOException {

        processRequest(request, response);

    }


    /**

     * Handles the HTTP <code>POST</code> method.

     *

     * @param request servlet request

     * @param response servlet response

     * @throws ServletException if a servlet-specific error
occurs

     * @throws IOException if an I/O error occurs

     */

    @Override
```

```java
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
        processRequest(request, response);
    }

    /**
     * Returns a short description of the servlet.
     *
     * @return a String containing servlet description
     */
    @Override
    public String getServletInfo() {
        return "Short description";
    }// </editor-fold>

}
```

2)
```
/*
 * To change this license header, choose License Headers in Project Properties.
```

```java
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**
 *
 * @author LAXMINARAYANRO
 */
public class p6del extends HttpServlet {

    /**
```

```java
     * Processes requests for both HTTP <code>GET</code>
and <code>POST</code>
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error
occurs
     * @throws IOException if an I/O error occurs
     */
    protected void processRequest(HttpServletRequest
request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();


        int Id = Integer.parseInt(request.getParameter("ID"));
                try
        {
          //out.println(Id);
```

```java
Class.forName("org.apache.derby.jdbc.EmbeddedDriver");//
driver class name

        // database path

        Connection cn =
DriverManager.getConnection("jdbc:derby://localhost:1527/
ccpcpro");


        Statement st = cn.createStatement();

        String str = "delete from p6 where ID = "+Id+"   ";

        st.executeUpdate(str);


    }

            catch(Exception e)
    {
     out.println(e.getMessage());

    }

     out.println("<div style=\"border: 5px outset
red;background-color: lightblue;text-align: center;\">Record
Deleted SuccesFully</div>");


    }

   // <editor-fold defaultstate="collapsed" desc="HttpServlet
methods. Click on the + sign on the left to edit the code.">
```

```java
/**
 * Handles the HTTP <code>GET</code> method.
 *
 * @param request servlet request
 * @param response servlet response
 * @throws ServletException if a servlet-specific error occurs
 * @throws IOException if an I/O error occurs
 */
@Override
protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
    processRequest(request, response);
}

/**
 * Handles the HTTP <code>POST</code> method.
 *
 * @param request servlet request
 * @param response servlet response
 * @throws ServletException if a servlet-specific error occurs
```

```java
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }


    /**
     * Returns a short description of the servlet.
     *
     * @return a String containing servlet description
     */
    @Override
    public String getServletInfo() {
        return "Short description";
    }// </editor-fold>

}
```

3)

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

```java
import java.io.PrintWriter;

import java.sql.*;

import javax.servlet.ServletException;

import javax.servlet.http.*;


public class p6ser extends HttpServlet {


    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();
        response.setContentType("text/html");
        out.println("<html><body>");
        int id = Integer.parseInt(request.getParameter("id"));

        try
        {

Class.forName("org.apache.derby.jdbc.EmbeddedDriver");// driver class name
        // database path
```

```java
        Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/ccpcpro");


        Statement st = cn.createStatement();



        ResultSet rs = st.executeQuery("select * from p6 where id = "+id+"");
        out.println("<table border=1 width=50% height=50% background-color: #4CAF50;\n" +
" color: white;> ");
        out.println("<tr><th >ID</th><th>Name</th><th>Quantity</th><tr>");
        while (rs.next())
        {
          id = rs.getInt("id");
          String fn = rs.getString("name");
          int quantity = rs.getInt("quantity");
          out.println("<tr><td>" + id + "</td><td>" + fn + "</td><td>" + quantity + "</td></tr>");
        }
        out.println("</table>");
```

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

            cn.close();

        }

        catch (Exception e)

        {

        out.println(e.getMessage());

    }


        out.println("<div style=\"border: 5px outset red;background-color: lightblue;text-align: center;\">Record Updated SuccesFully</div>");

    }


    // <editor-fold defaultstate="collapsed" desc="HttpServlet methods. Click on the + sign on the left to edit the code.">
    /**
     * Handles the HTTP <code>GET</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
```

```java
     */
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }


    /**
     * Handles the HTTP <code>POST</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }
```

```java
    /**
     * Returns a short description of the servlet.
     *
     * @return a String containing servlet description
     */
    @Override
    public String getServletInfo() {
        return "Short description";
    }// </editor-fold>

}
```

4)

```java
/*
 * To change this license header, choose License Headers in
Project Properties.
 * To change this template file, choose Tools | Templates
 * and open the template in the editor.
 */

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

```java
import java.sql.Connection;

import java.sql.DriverManager;

import java.sql.Statement;

import javax.servlet.ServletException;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;


/**
 *
 * @author LAXMINARAYANRO
 */
public class upd extends HttpServlet {


    /**
     * Processes requests for both HTTP <code>GET</code>
and <code>POST</code>
     * methods.
     *
     * @param request servlet request
     * @param response servlet response
```

```java
     * @throws ServletException if a servlet-specific error
occurs
     * @throws IOException if an I/O error occurs
     */
    protected void processRequest(HttpServletRequest
request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();


            int Id = Integer.parseInt(request.getParameter("ID"));
            String name = request.getParameter("name");
            int Quantity =
Integer.parseInt(request.getParameter("Quantity"));
                try
        {


Class.forName("org.apache.derby.jdbc.EmbeddedDriver");//
driver class name
            // database path
            Connection cn =
DriverManager.getConnection("jdbc:derby://localhost:1527/
ccpcpro");
```

```java
        Statement st = cn.createStatement();

        String str = "update p6 set
name='"+name+"',Quantity="+Quantity+" where ID =
"+Id+"";

        st.executeUpdate(str);


    }

    catch(Exception e)

    {

     out.println(e.getMessage());

    }

        out.println("<div style=\"border: 5px outset
red;background-color: lightblue;text-align: center;\">Record
Updated SuccesFully</div>");


    }


    // <editor-fold defaultstate="collapsed" desc="HttpServlet
methods. Click on the + sign on the left to edit the code.">

    /**

     * Handles the HTTP <code>GET</code> method.

     *
```

```java
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error
occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
    protected void doGet(HttpServletRequest request,
HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }


    /**
     * Handles the HTTP <code>POST</code> method.
     *
     * @param request servlet request
     * @param response servlet response
     * @throws ServletException if a servlet-specific error
occurs
     * @throws IOException if an I/O error occurs
     */
    @Override
```

```java
    protected void doPost(HttpServletRequest request,
HttpServletResponse response)
        throws ServletException, IOException {
    processRequest(request, response);
}


    /**
     * Returns a short description of the servlet.
     *
     * @return a String containing servlet description
     */
    @Override
    public String getServletInfo() {
        return "Short description";
    }// </editor-fold>

}
```
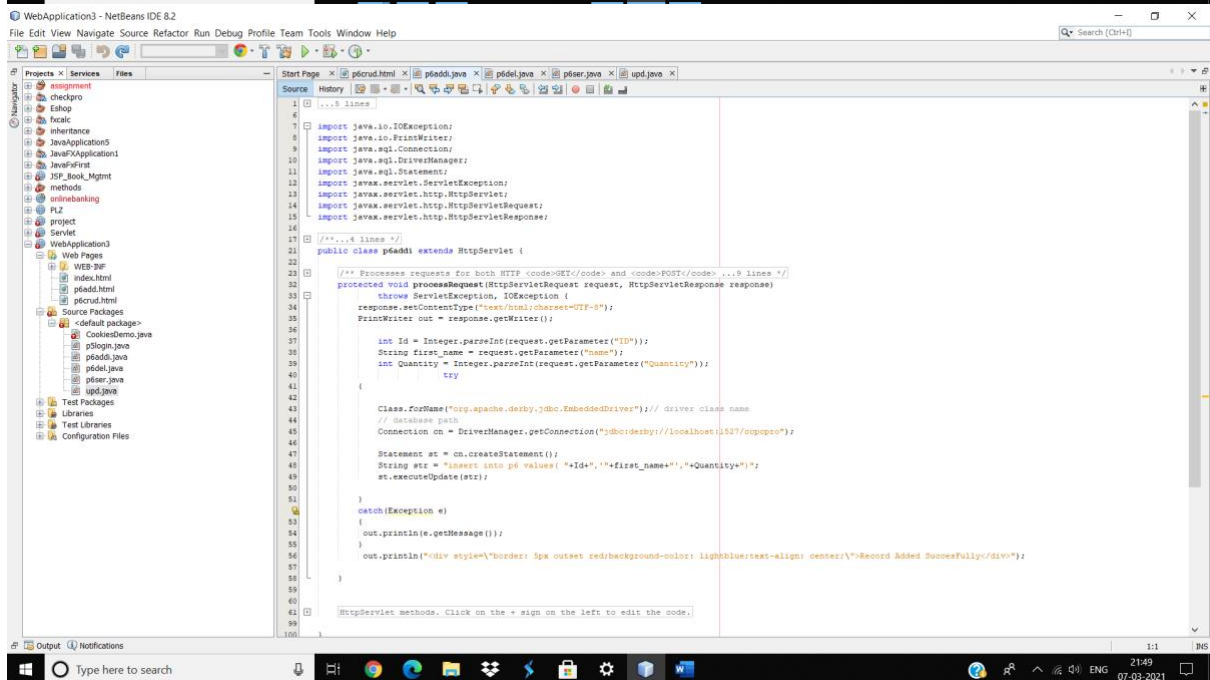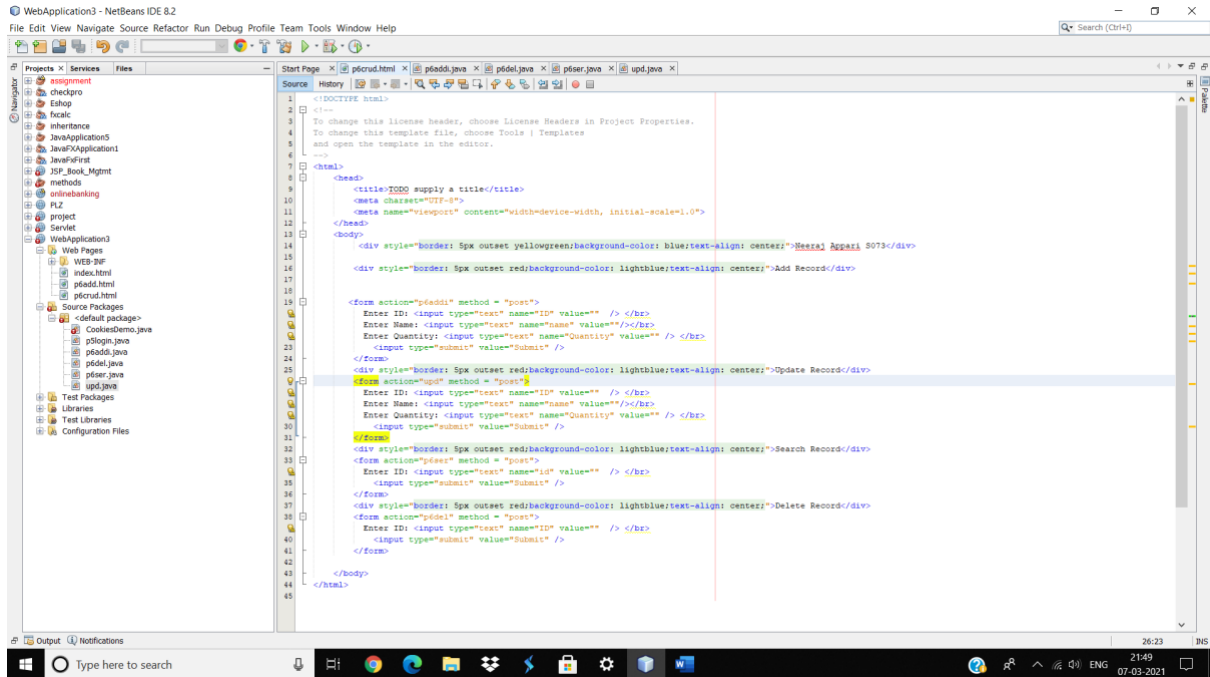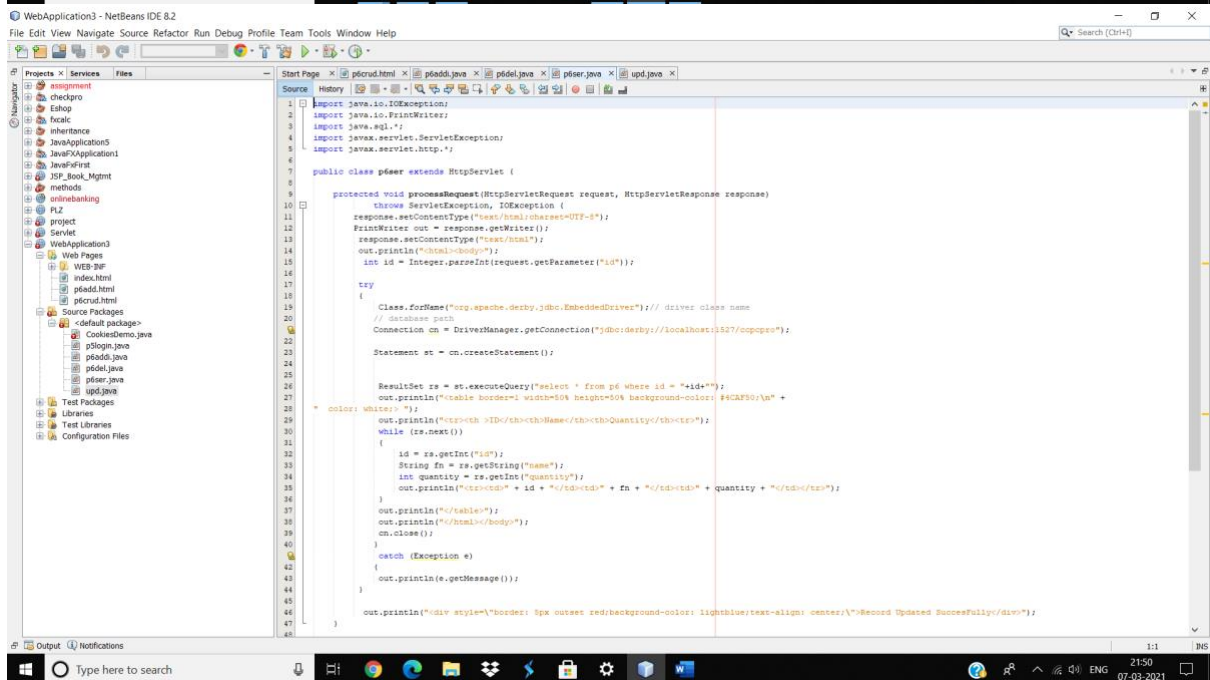
```html
<!DOCTYPE html>
<!--
To change this license header, choose License Headers in Project Properties.
To change this template file, choose Tools | Templates
and open the template in the editor.
-->
<html>
    <head>
        <title>TODO supply a title</title>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
    </head>
    <body>
        <div style="border: 5px outset yellowgreen;background-color: blue;text-align: center;">Neeraj Appari S073</div>

        <div style="border: 5px outset red;background-color: lightblue;text-align: center;">Add Record</div>

        <form action="p6addi" method = "post">
            Enter ID: <input type="text" name="ID" value=""  /> </br>
            Enter Name: <input type="text" name="name" value=""/></br>
            Enter Quantity: <input type="text" name="Quantity" value="" /> </br>
            <input type="submit" value="Submit" />
        </form>
        <div style="border: 5px outset red;background-color: lightblue;text-align: center;">Update Record</div>
        <form action="upd" method = "post">
            Enter ID: <input type="text" name="ID" value=""  /> </br>
            Enter Name: <input type="text" name="name" value=""/></br>
            Enter Quantity: <input type="text" name="Quantity" value="" /> </br>
            <input type="submit" value="Submit" />
        </form>
        <div style="border: 5px outset red;background-color: lightblue;text-align: center;">Search Record</div>
        <form action="p6ser" method = "post">
            Enter ID: <input type="text" name="id" value=""  /> </br>
            <input type="submit" value="Submit" />
        </form>
        <div style="border: 5px outset red;background-color: lightblue;text-align: center;">Delete Record</div>
        <form action="p6del" method = "post">
            Enter ID: <input type="text" name="ID" value=""  /> </br>
            <input type="submit" value="Submit" />
        </form>

    </body>
</html>
```
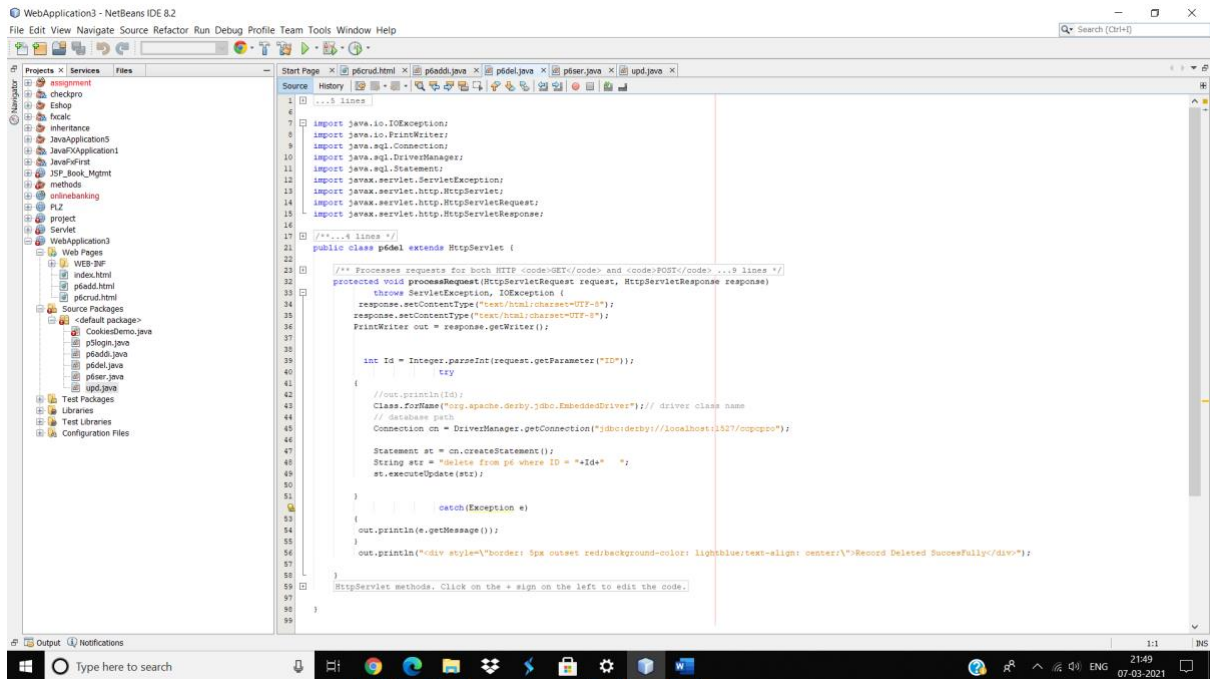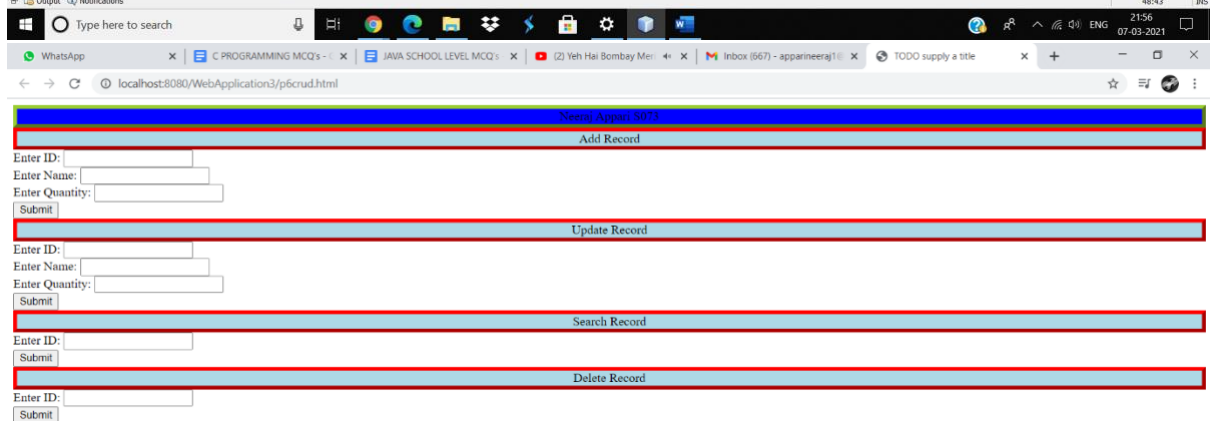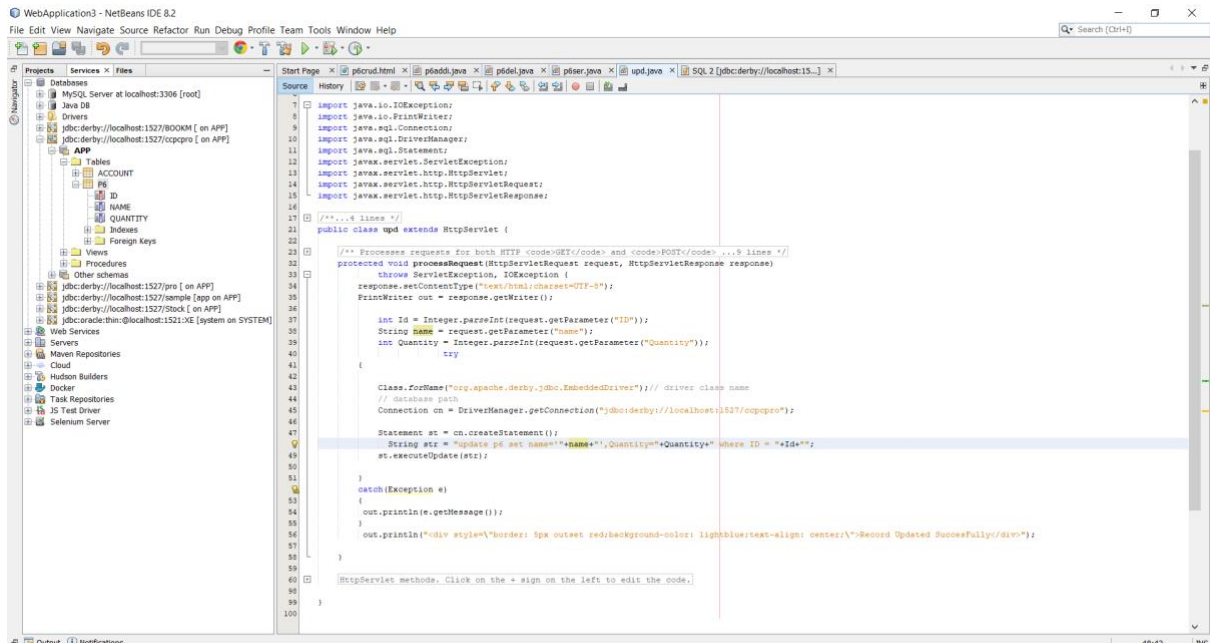
```java
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**...4 lines */
public class p6addi extends HttpServlet {

    /** Processes requests for both HTTP <code>GET</code> and <code>POST</code> ...9 lines */
    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();

            int Id = Integer.parseInt(request.getParameter("ID"));
            String first_name = request.getParameter("name");
            int Quantity = Integer.parseInt(request.getParameter("Quantity"));
                try
            {

            Class.forName("org.apache.derby.jdbc.EmbeddedDriver");// driver class name
            // database path
            Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/copcpro");

            Statement st = cn.createStatement();
            String str = "insert into p6 values( "+Id+",'"+first_name+"',"+Quantity+")";
            st.executeUpdate(str);

            }
            catch(Exception e)
            {
            out.println(e.getMessage());
            }
            out.println("<div style=\"border: 5px outset red;background-color: lightblue;text-align: center;\">Record Added Successfully</div>");


        }

    HttpServlet methods. Click on the + sign on the left to edit the code.
```

Screenshot 1 — p6del.java:

```java
...5 lines

import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.Statement;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

/**...4 lines */
public class p6del extends HttpServlet {

    /** Processes requests for both HTTP <code>GET</code> and <code>POST</code> ...9 lines */
    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();

        int Id = Integer.parseInt(request.getParameter("ID"));
            try
        {
            //out.println(Id);
            Class.forName("org.apache.derby.jdbc.EmbeddedDriver");// driver class name
            // database path
            Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/copcpro");

            Statement st = cn.createStatement();
            String str = "delete from p6 where ID = "+Id+"   ";
            st.executeUpdate(str);

        }
                catch(Exception e)
        {
        out.println(e.getMessage());
        }
        out.println("<div style=\"border: 5px outset red;background-color: lightblue;text-align: center;\">Record Deleted Succesfully</div>");

    }
    HttpServlet methods. Click on the + sign on the left to edit the code.

}
```

Screenshot 2 — p6ser.java:

```java
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.*;
import javax.servlet.ServletException;
import javax.servlet.http.*;

public class p6ser extends HttpServlet {

    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html;charset=UTF-8");
        PrintWriter out = response.getWriter();
        response.setContentType("text/html");
        out.println("<html><body>");
        int id = Integer.parseInt(request.getParameter("id"));

        try
        {
            Class.forName("org.apache.derby.jdbc.EmbeddedDriver");// driver class name
            // database path
            Connection cn = DriverManager.getConnection("jdbc:derby://localhost:1527/copcpro");

            Statement st = cn.createStatement();

            ResultSet rs = st.executeQuery("select * from p6 where id = "+id+"");
            out.println("<table border=1 width=50% height=50% background-color: #4CAF50;\"m" +
" color: white;> ");
            out.println("<tr><th >ID</th><th>Name</th><th>Quantity</th><tr>");
            while (rs.next())
            {
                id = rs.getInt("id");
                String fn = rs.getString("name");
                int quantity = rs.getInt("quantity");
                out.println("<tr><td>" + id + "</td><td>" + fn + "</td><td>" + quantity + "</td></tr>");
            }
            out.println("</table>");
            out.println("</html></body>");
            cn.close();
        }
            catch (Exception e)
        {
            out.println(e.getMessage());
        }

        out.println("<div style=\"border: 5px outset red;background-color: lightblue;text-align: center;\">Record Updated Succesfully</div>");
    }
```

Record Updated SuccesFully

Record Updated SuccesFully

Add Record

Enter ID: [   ]
Enter Name: [   ]
Enter Quantity: [   ]
[Submit]

Update Record

Enter ID: [   ]
Enter Name: [   ]
Enter Quantity: [   ]
[Submit]

Search Record

Enter ID: [1]
[Submit]

Delete Record

Enter ID: [   ]
[Submit]

ID	Name	Quantity
1	Neeraj	7787

Record Updated SuccesFully

WhatsApp | C PROGRAMMING MCQ's - Goo | JAVA SCHOOL LEVEL MCQ's - Go | Inbox (667) - apparineeraj1@gm | TODO supply a title | +

localhost:8080/WebApplication3/p6crud.html

Neeraj Appuni 4071

Add Record

Enter ID: [____]
Enter Name: [____]
Enter Quantity: [____]
[Submit]

Update Record

Enter ID: [____]
Enter Name: [____]
Enter Quantity: [____]
[Submit]

Search Record

Enter ID: [____]
[Submit]

Delete Record

Enter ID: [1]
[Submit]

WhatsApp | C PROGRAMMING MCQ's - Goo | JAVA SCHOOL LEVEL MCQ's - Go | Inbox (667) - apparineeraj1@gm | localhost:8080/WebApplication3 | +

localhost:8080/WebApplication3/p6del

Record Deleted SuccesFully