

21-10-2020

LAB EXERCISES

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MCA(R)

PROGRAM 1:

INDEX.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>
```

```
    <form action="student" method="get">
```

```
    Student Name : <input type="text" name="name">
```

```
    Student Roll Number : <input type="number" name="roll">
```

```
    Mobile Number : <input type="number" name="mobile">
```

```
    <input type="submit" name="submit" value="Submit">
```

```
  </form>
```

```
  </body>
```

```
</html>
```

STUDENT.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;  
import javax.servlet.ServletException;  
import javax.servlet.http.HttpServlet;  
import javax.servlet.http.HttpServletRequest;  
import javax.servlet.http.HttpServletResponse;
```

```
/**  
 *  
 * @author sasi  
 */
```

```
public class student extends HttpServlet {
```

```
    // <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
```

```

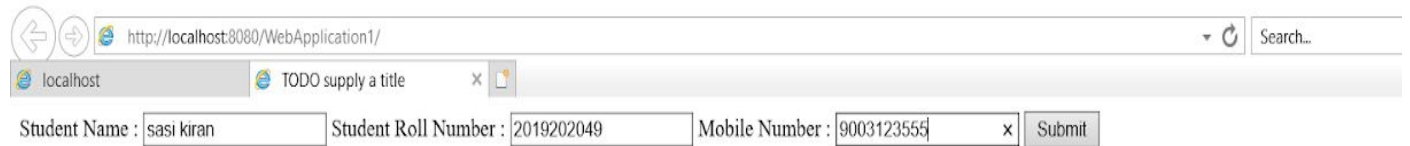
    * @throws ServletException if a servlet-specific error occurs
    * @throws IOException if an I/O error occurs
    */
    @Override
    protected void doGet(HttpServletRequest request, HttpServletResponse
response)
        throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();
        String name=request.getParameter("name");
        String roll=request.getParameter("roll");
        String mobile=request.getParameter("mobile");
        out.println("STUDENT NAME IS :: "+name);
        out.println("STUDENT ROLL NUMBER IS :: "+roll);
        out.println("STUDENT MOBILE NUMBER IS :: "+mobile);

    }

}

```

OUTPUT:



A screenshot of a web browser window. The address bar shows the URL `http://localhost:8080/WebApplication1/`. The browser has two tabs: 'localhost' and 'TODO supply a title'. The page content displays a form with three input fields and a submit button. The first field is labeled 'Student Name :' and contains the text 'sasi kiran'. The second field is labeled 'Student Roll Number :' and contains the text '2019202049'. The third field is labeled 'Mobile Number :' and contains the text '9003123555'. To the right of the third field is a 'Submit' button.



A screenshot of a web browser window showing the result of the form submission. The address bar shows the URL `http://localhost:8080/WebApplication1/student?name=sasi+kiran&roll=2019202049&mobile=9003123555&submit=Submit`. The browser has two tabs: 'localhost' and 'localhost'. The page content displays the text: 'STUDENT NAME IS :: sasi kiranSTUDENT ROLL NUMBER IS :: 2019202049STUDENT MOBILE NUMBER IS :: 9003123555'.

PROGRAM 2:

DATABASE CONNECTIVITY:

INDEX.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>
```

```
    <form action="student" method="get">
```

```
      Student Roll Number : <input type="number" name="roll">
```

```
      <input type="submit" name="submit" value="Submit">
```

```
    </form>
```

```
  </body>
```

```
</html>
```

STUDENT.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;  
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;
```

```
/**  
 *  
 * @author sasi  
 */
```

```
public class student extends HttpServlet {  
    public static Connection conn;
```

```
    // <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
 */
@Override
protected void doGet(HttpServletRequest request, HttpServletResponse
response)
    throws ServletException, IOException {
    response.setContentType("text/html");
    PrintWriter out=response.getWriter();
    String r=request.getParameter("roll");

    String url = "jdbc:postgresql://localhost:5432/testdb";
        String username = "postgres";
        String password = "psql";
        String docType =
            "<!doctype html public \"-//w3c//dtd html 4.0 \" +
            \"transitional//en\">\n";

    out.println(docType +
        "<html>\n" +
        "<head><title></title></head>\n" +
        "<body bgcolor = \"#f0f0f0\">\n" +
        "<h1 align = \"center\"></h1>\n");
        try
        {
            Class.forName("org.postgresql.Driver");
            conn= (Connection) DriverManager.getConnection(url,
username, password);

```

```

        System.out.println("Connected Successfully!");
        // Execute SQL query
Statement stmt = conn.createStatement();
String sql;
sql = "SELECT * from student where roll=roll";
ResultSet rs = stmt.executeQuery(sql);

// Extract data from result set
while(rs.next()){
    //Retrieve by column name
    String name1 = rs.getString("name");
    String rolls = rs.getString("roll");
    int mobile = rs.getInt("mobile");
    int credit = rs.getInt("credit");
    String mail = rs.getString("mail");
    if(rolls.equals(r)){
        out.print("<br>Fetching Details From Database"+"<br><br>");
        out.println("NAME ::    " + name1 + "<br><br>");
        out.println("ROLL ::    " + rolls + "<br><br>");
        out.println("MOBILE ::    " + mobile + "<br><br>");
        out.println("CREDITS ::    "+credit+"<br><br>");
        out.println("E-MAIL ID ::    "+mail+"<br><br>");
    }
}

    out.println("</body></html>");
// Clean-up environment
rs.close();
stmt.close();
conn.close();
    }
    catch (SQLException e)
    {

```



```

        System.out.println("Connection Failed! Check output console");
    } catch (ClassNotFoundException ex) {
        Logger.getLogger(student.class.getName()).log(Level.SEVERE, null, ex);
    }
}
}
}

```

OUTPUT:

DATABASE PSQL:

```

SQL Shell (psql)
Server [localhost]:
Database [postgres]:
Port [5432]:
Username [postgres]:
Password for user postgres:
psql (12.1)
WARNING: Console code page (437) differs from Windows code page (1252)
8-bit characters might not work correctly. See psql reference
page "Notes for Windows users" for details.
Type "help" for help.

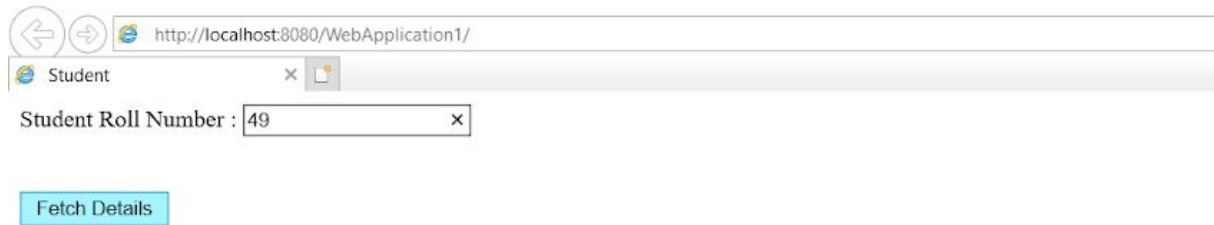
postgres=# \c testdb
You are now connected to database "testdb" as user "postgres".
testdb=# select * from student;
 name | roll | mobile
-----+-----+-----
 sasi  | 49   | 24357676
 kumar | 25   | 24357333
(2 rows)

testdb=# drop table student;
DROP TABLE
testdb=# create table student(name text, roll int, mobile int, credit int, mail text);
CREATE TABLE
testdb=# insert into student values('sasi',49,24345656,9,'kkiransasi98@gmail.com');
INSERT 0 1
testdb=# insert into student values('ganesh',25,24348989,9,'ganeshkumar@gmail.com');
INSERT 0 1
testdb=# insert into student values('kumar',33,24340000,8,'kumar123@gmail.com');
INSERT 0 1
testdb=# insert into student values('ram',2,24357671,9,'ramkapo@gmail.com');
INSERT 0 1
testdb=# insert into student values('kj rao',66,24351675,8,'raok15@gmail.com');
INSERT 0 1
testdb=# insert into student values('kss laxmi',40,24322275,9,'laxmi79@gmail.com');
INSERT 0 1
testdb=# insert into student values('priyanka',42,24322990,8,'priyank111@gmail.com');
INSERT 0 1
testdb=# select * from student;
 name | roll | mobile | credit | mail
-----+-----+-----+-----+-----
 sasi  | 49   | 24345656 | 9 | kkiransasi98@gmail.com
 ganesh | 25   | 24348989 | 9 | ganeshkumar@gmail.com
 kumar  | 33   | 24340000 | 8 | kumar123@gmail.com
 ram    | 2    | 24357671 | 9 | ramkapo@gmail.com
 kj rao | 66   | 24351675 | 8 | raok15@gmail.com
 kss laxmi | 40  | 24322275 | 9 | laxmi79@gmail.com
 priyanka | 42  | 24322990 | 8 | priyank111@gmail.com
(7 rows)

testdb=#

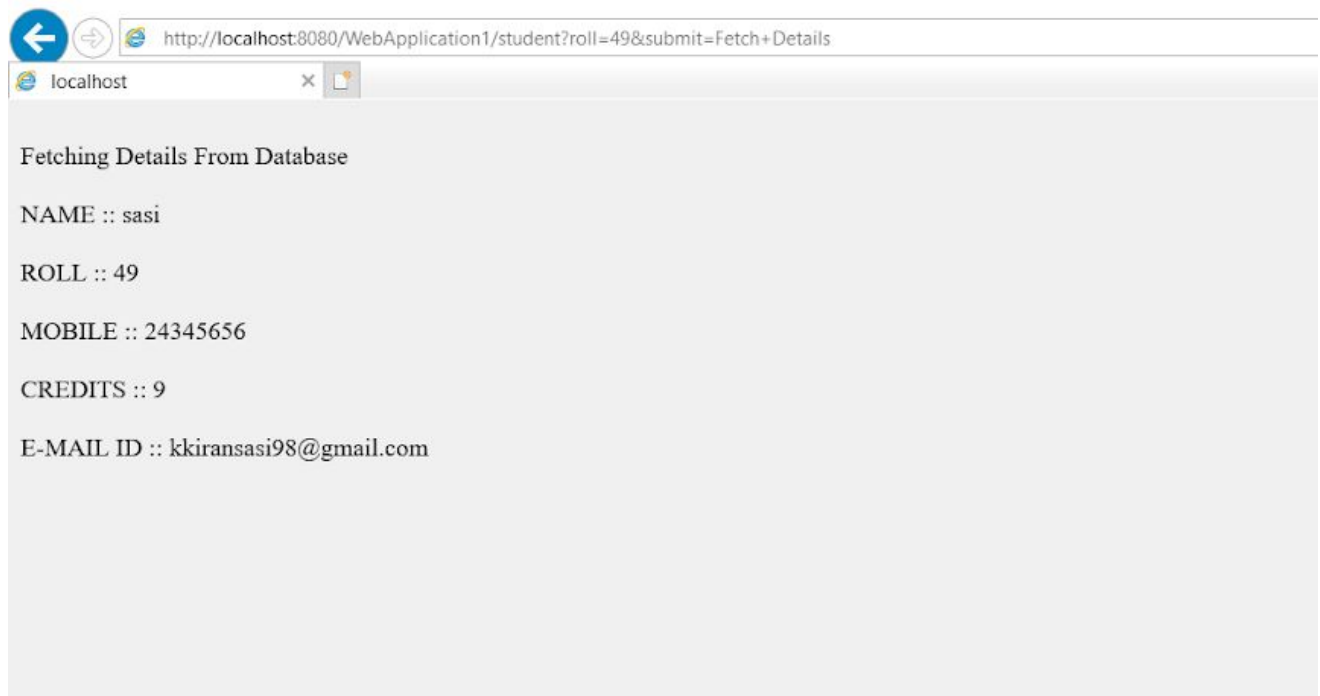
```

LOCALHOST :



A screenshot of a web browser window. The address bar shows the URL `http://localhost:8080/WebApplication1/`. The browser tab is titled "Student". Below the address bar, there is a form with the label "Student Roll Number :" followed by a text input field containing the value "49". Below the input field, there is a blue button labeled "Fetch Details".

FETCH FROM DATABASE:



A screenshot of a web browser window. The address bar shows the URL `http://localhost:8080/WebApplication1/student?roll=49&submit=Fetch+Details`. The browser tab is titled "localhost". The main content area of the browser displays the following text:

Fetching Details From Database

NAME :: sasi

ROLL :: 49

MOBILE :: 24345656

CREDITS :: 9

E-MAIL ID :: kkiransasi98@gmail.com