

Name: Sarchin N

Reg No: 18BCE1341

Title: Java Digital Assignment 3

1. Krishna Murthy Number in Java Servlet

Code:

Index.html

[illegible]

mainServlet.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 Sarchin N
```

```
*/
```

```
public class mainServlet extends HttpServlet {
```

```
    /**
```

```
    * 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");
```

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

```
            /* TODO output your page here. You may use following sample code. */
```

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

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

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

```
            out.println("<title>Krishna Murthy Number</title>");
```

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

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

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

```
            String number = request.getParameter("number");
```

```
            int sum = 0, lastDigit = 0;
```

```
            int tempNum = Integer.parseInt(number);
```

```

int test = tempNum;

while(tempNum != 0) {
    lastDigit = tempNum % 10;
    sum += factorial(lastDigit);
    tempNum /= 10;
}

if(sum == test) {
    out.println("<h3>it is a Krishna Murthy Number</h3>");
} else {
    out.println("<h3>The number is not a Krishna Murthy Number</h3>");
}

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

```

```

public static long factorial(int n) {
    long fact = 1;
    for(int i=1; i<=n; i++) {
        fact *= i;
    }
    return fact;
}

```

// <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 {
    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);
}

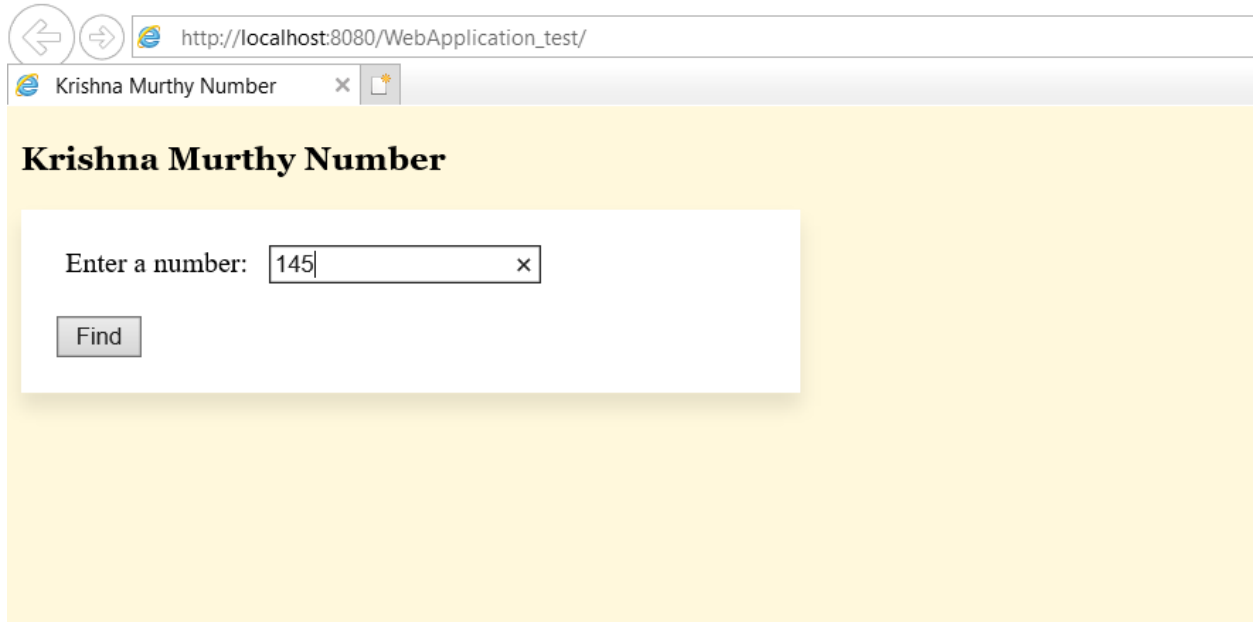
/**
* Returns a short description of the servlet.
*
* @return a String containing servlet description
*/

@Override
public String getServletInfo() {
    return "Short description";
} // </editor-fold>

```

```
}
```

Output:



Enter a number: 145

Find

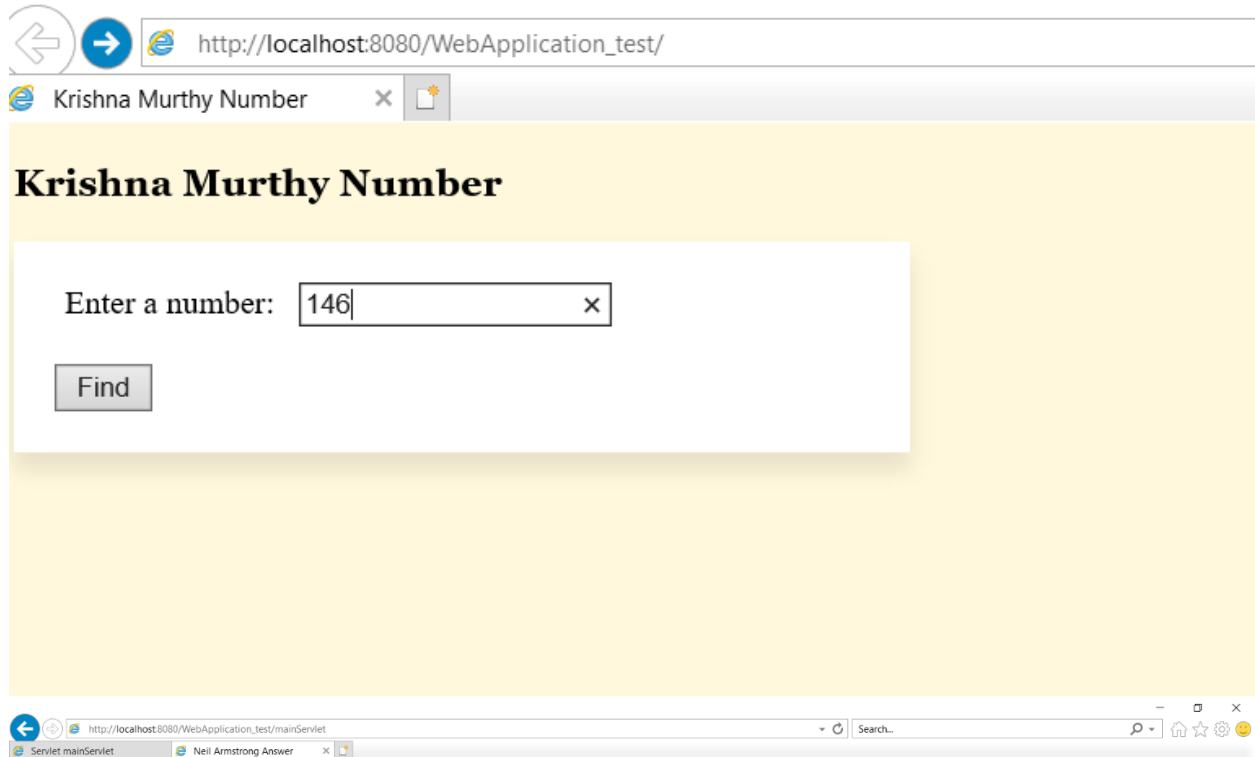


http://localhost:8080/WebApplication_test/mainServlet

Krishna Murthy Number

Answer

it is a Krishna Murthy Number



Answer

Sorry, the number is not a Neil Armstrong Number

