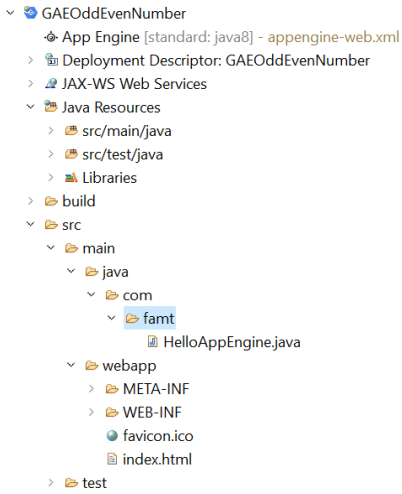
Solution to the Exercise:

1. Write a java program using Google App Engine for checking entered number is Odd or Even.

   Project Explorer is as follows –



   Code for index.html –

```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml" lang="en">
  <head>
    <meta http-equiv="content-type" content="application/xhtml+xml; charset=UTF-8" />
    <title>Odd Even Number Test</title>
  </head>

  <body>
    <h1>Welcome to Odd Even Number Test Page</h1>

       <form method="get" action="/hello">
           Enter a Number <input type="text" name="num">
           <button>Submit</button>
        </form>
  </body>
</html>
```

   Code for HelloAppEngine.java –

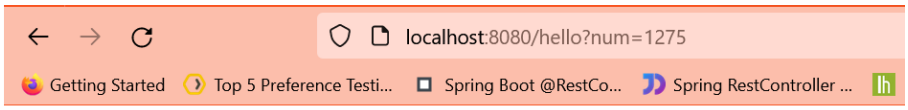
```
package com.famt;

import java.io.IOException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

@WebServlet(
    name = "HelloAppEngine",
    urlPatterns = {"/hello"}
)
public class HelloAppEngine extends HttpServlet {
       private static final long serialVersionUID = 1L;

@Override
  public void doGet(HttpServletRequest request, HttpServletResponse response)
      throws IOException {

    response.setContentType("text/plain");
    response.setCharacterEncoding("UTF-8");

    String param = request.getParameter("num");
```

```
    response.getWriter().print(param);

    int testNum = Integer.parseInt(param);
    if(testNum%2 == 0)
       response.getWriter().print(" Number is Even....");
    else
       response.getWriter().print(" Number is Odd....");
  }
}
```

Output of the Program –

Welcome to Odd Even Number Test Page

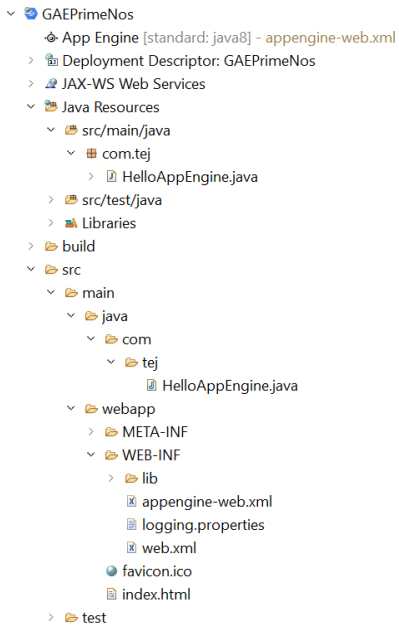
Enter a Number 1275 Submit




```
1275 Number is Odd....
```

2. Write a java program using Google App Engine for checking entered number is Prime or not.

Project Explorer is as follows –



Code for index.html –

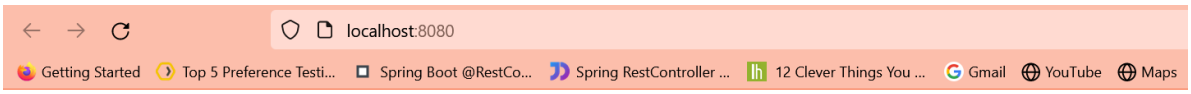
```
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml" lang="en">
  <head>
    <meta http-equiv="content-type" content="application/xhtml+xml; charset=UTF-8" />
    <title>Hello App Engine</title>
```

```
  </head>

  <body>
    <h1>App Engine Program for Checking number is Prime Number or not.</h1>
       <form method="get" action="/hello">
              Enter a Number: <input type="text" name="numTxt">
              <p></p>
              <button>Submit</button>
       </form>
  </body>
</html>
```

Code for HelloAppEngine.java –

```
package com.tej;

import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

@WebServlet(
    name = "HelloAppEngine",
    urlPatterns = {"/hello"}
)

public class HelloAppEngine extends HttpServlet {

       private static final long serialVersionUID = 1L;

       @Override
       public void doGet(HttpServletRequest request, HttpServletResponse response)
                     throws IOException {
           response.setContentType("text/plain");
           response.setCharacterEncoding("UTF-8");
           PrintWriter out =  response.getWriter();

           boolean flag = true;
              String txtParam = request.getParameter("numTxt");
              out.println("Number is: " + txtParam);
              int num = Integer.parseInt(txtParam);
              for(int i=2; i<Math.sqrt(num); i++) {
                     if(num%i == 0) {
                            flag = false;
                            break;
                     }
              }

              if(flag == true)
                     out.println(num + " is Prime no.");
              else
                     out.println(num + " is NOT Prime no.");
       }
}
```

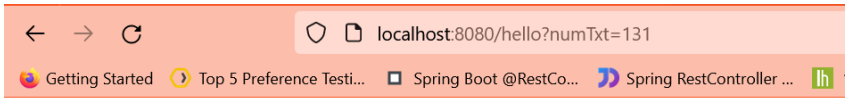
Output of the Program –



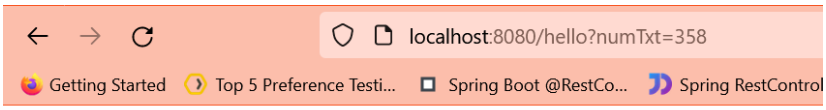
App Engine Program for Checking number is Prime Number or not.

Enter a Number: 131

Submit




```
Number is: 131
131 is Prime no.
```




```
Number is: 358
358 is NOT Prime no.
```