

PRACTICE PROJECT 3

Step 1:

Create Database and Create table in the Database and Insert data in the table

```
MySQL 8.0 Command Line Cli  +  ×
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 15
Server version: 8.0.32 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database project;
Query OK, 1 row affected (0.02 sec)

mysql> use project;
Database changed
mysql> |
```

```
MySQL 8.0 Command Line Cli  +  ×
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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database project;
Query OK, 1 row affected (0.02 sec)

mysql> use project;
Database changed
mysql> create table product(product_id INT NOT NULL,product_name VARCHAR(50) NOT NULL, QTY INT NOT NULL);
Query OK, 0 rows affected (0.04 sec)

mysql> INSERT INTO product value(1,"Books",100);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO product value(2,"Bags",10);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO product value(3,"pens",30);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO product value(4,"pencils",50);
Query OK, 1 row affected (0.00 sec)

mysql> |
```

```
mysql> create table product(product_id INT NOT NULL,product_name VARCHAR(50) NOT NULL, QTY INT NOT NULL);
Query OK, 0 rows affected (0.04 sec)

mysql> INSERT INTO product value(1,"Books",100);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO product value(2,"Bags",10);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO product value(3,"pens",30);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO product value(4,"pencils",50);
Query OK, 1 row affected (0.00 sec)

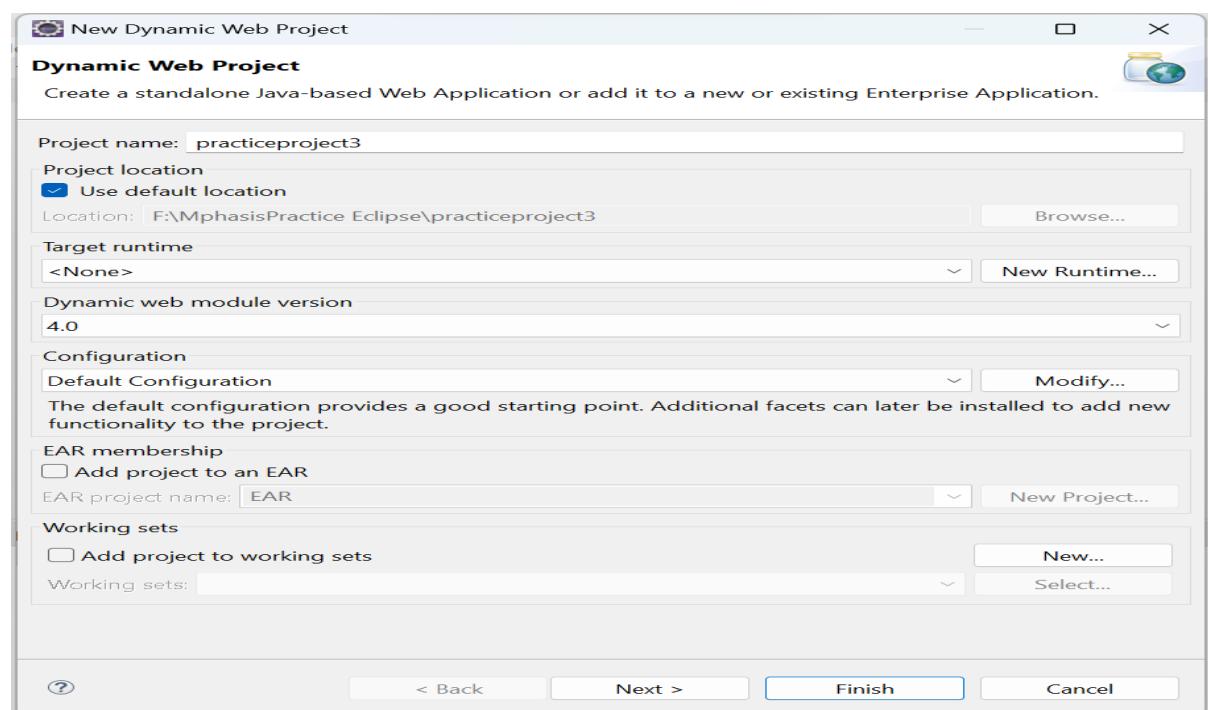
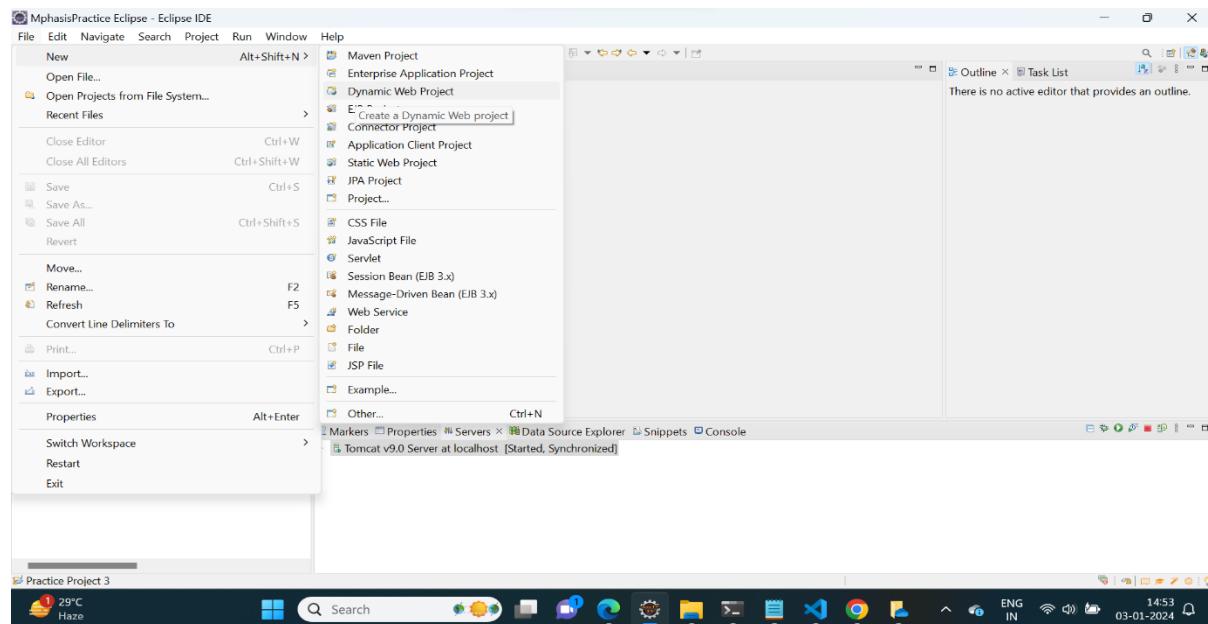
mysql> select * from product;
+-----+-----+-----+
| product_id | product_name | QTY |
+-----+-----+-----+
|      1 | Books       | 100 |
|      2 | Bags        | 10  |
|      3 | pens        | 30  |
|      4 | pencils     | 50  |
+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> |
```

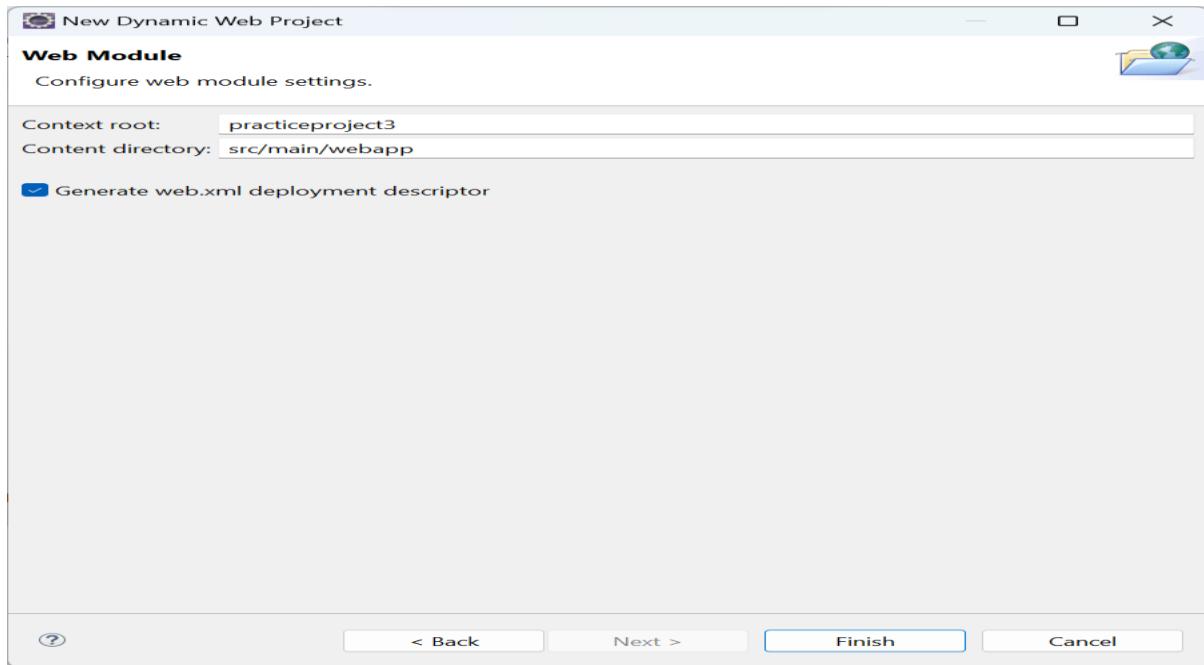
PRACTICE PROJECT 3

Step 2:

In Eclipse ,Create a new project -> Click on File New -> select Dynamic Web Project -> Give name to the project -> press next -> select the checkbox for Generate web.xml deployment descriptor -> Click on finish.

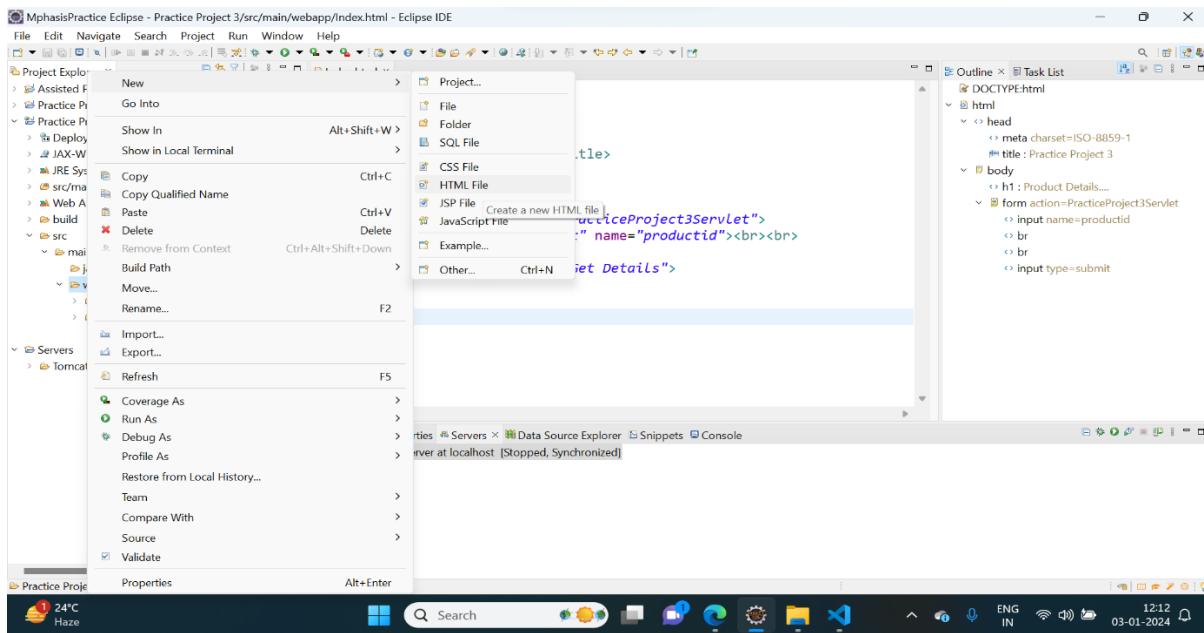


PRACTICE PROJECT 3



Step 3:

Create Html file in web App folder and Write the Html code inside the file.



PRACTICE PROJECT 3

The screenshot shows the Eclipse IDE interface. The title bar reads "MphasisPractice Eclipse - Practice Project 3/src/main/webapp/Index.html - Eclipse IDE". The code editor displays the content of Index.html:

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="ISO-8859-1">
5 <title>Practice Project 3</title>
6 </head>
7 <body bgcolor='azure' style='text-align:center; margin-top:100px'>
8 <h1>Enter Product Id To Get Details</h1>
9 <form method="get" action="PracticeProject3Servlet">
10 Product Id: <input type="text" name="productid"><br><br>
11 <input type="submit" value="Get Details">
12 </form>
13 </body>
14 </html>
```

The status bar at the bottom shows "Writable", "Smart Insert", and the date/time "03-01-2024 14:29".

Step 4:

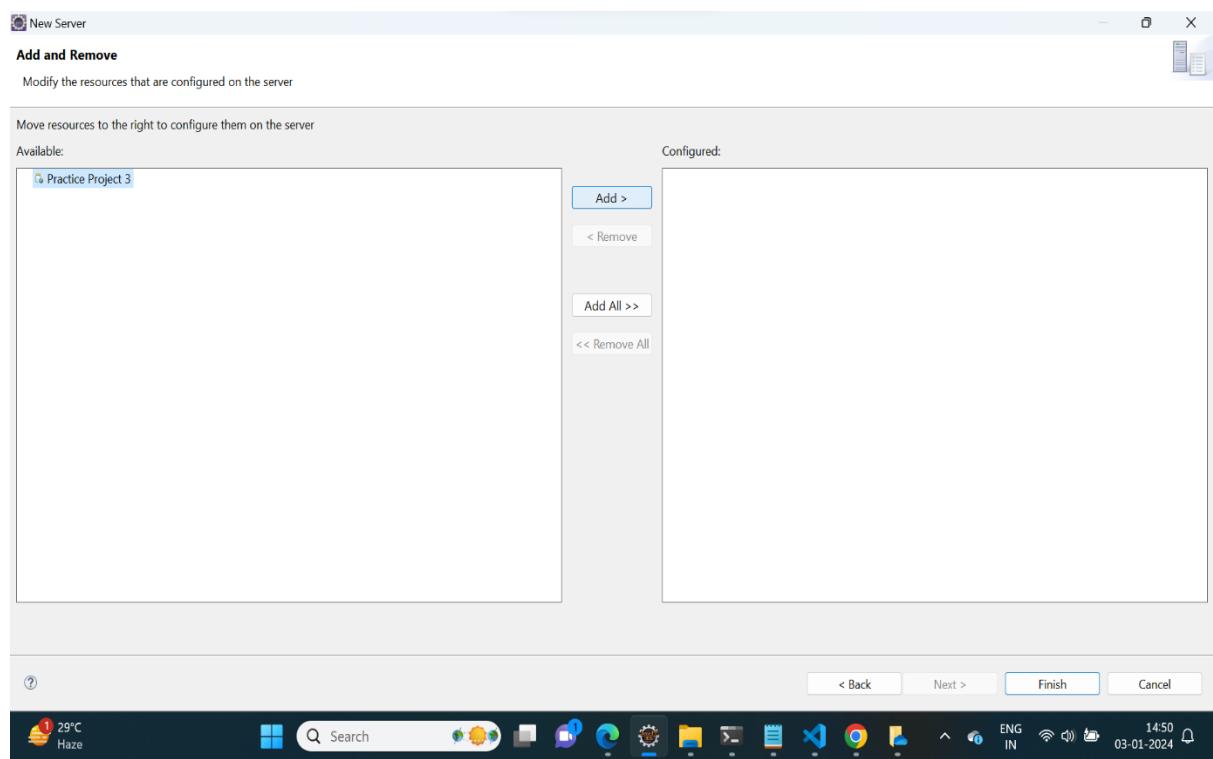
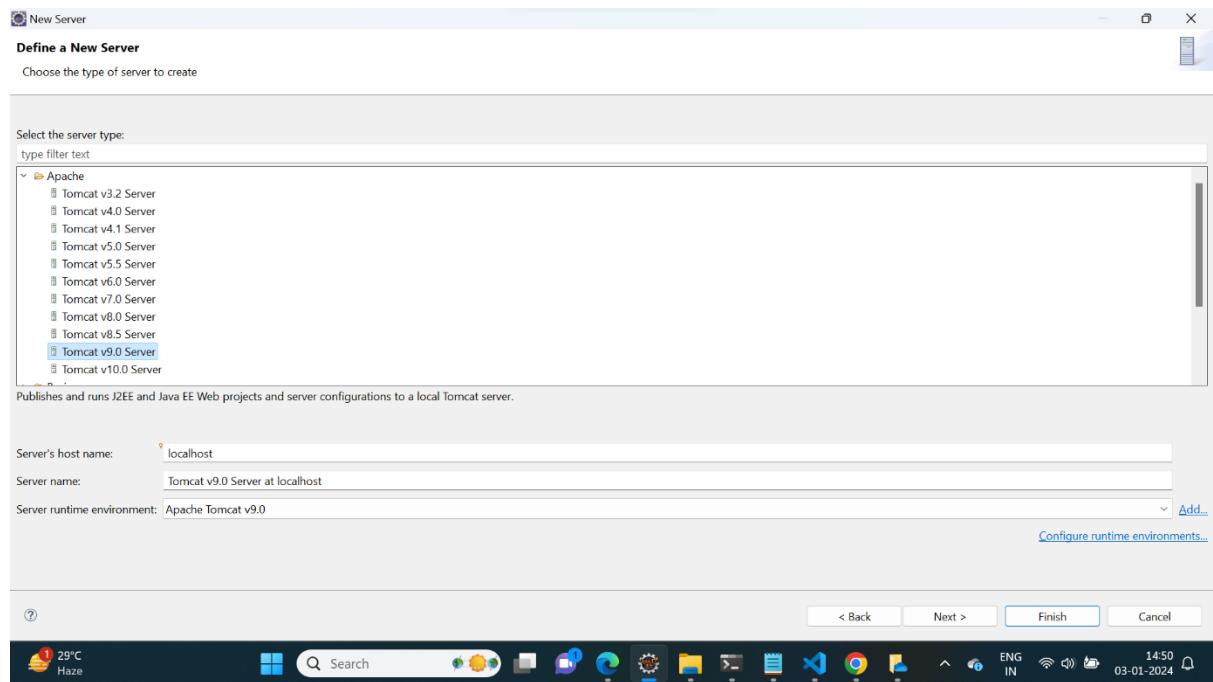
Adding Server and Deploying the html file in the server.

The screenshot shows the Eclipse IDE interface with a "Select a wizard" dialog open in the center. The dialog title is "Select a wizard" and it says "Define a new server". The "Wizards:" section has "Server" selected under "Server". The "Outline" view on the right shows the project structure, including "practiceproject3" and "PracticeProject3Servlet". The "Console" view at the bottom shows the server logs for Tomcat v9.0 Server at localhost:

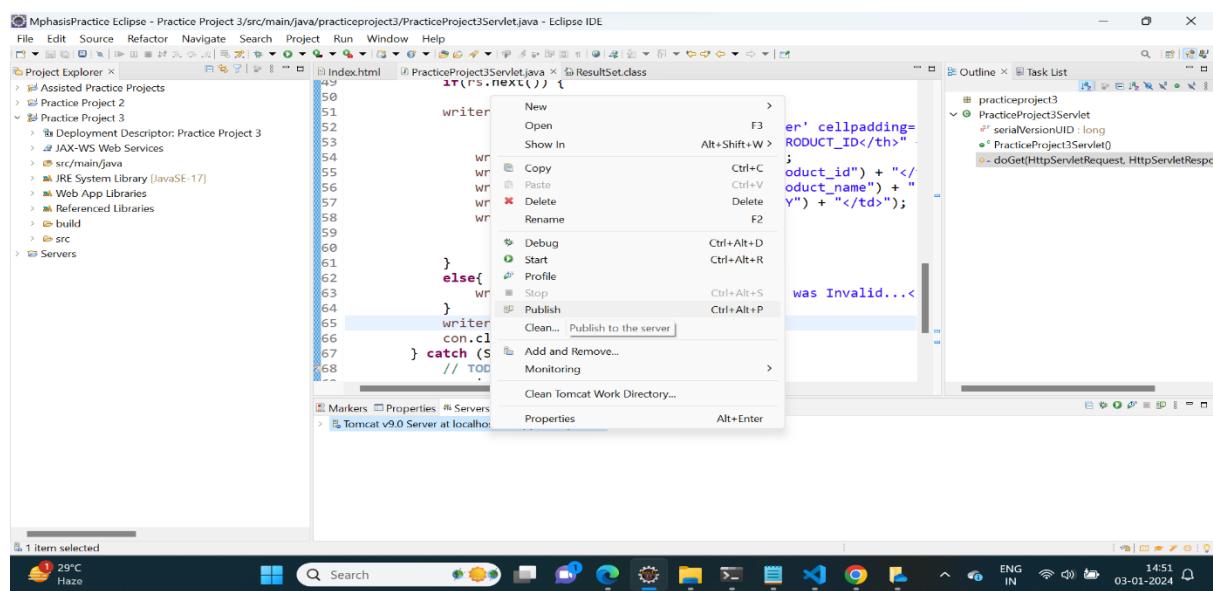
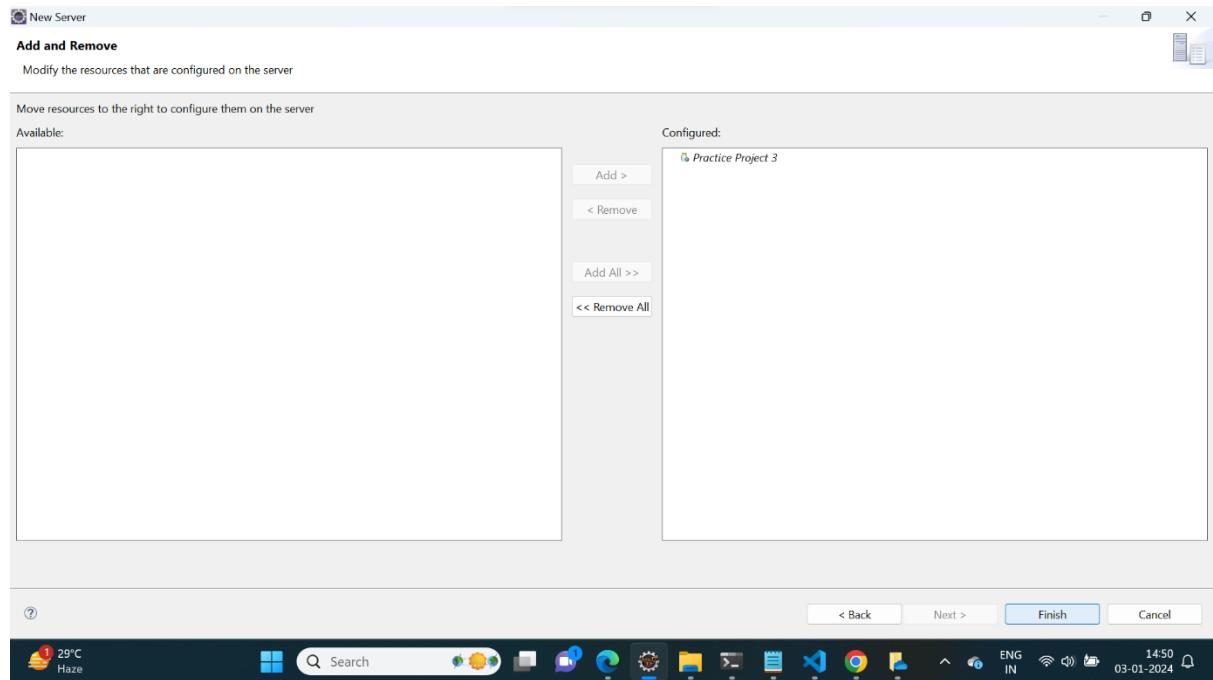
```
<terminated> Tomcat v9.0 Server at localhost [Apache Tomcat/9.0.57] C:\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64.17.0.1.v20211116-1657\jre\bin\javaw.exe [03 Jan 03, 2024 2:49:29 PM org.apache.coyote.AbstractProtocol stop
INFO: Stopping ProtocolHandler ["http-nio-9797"]
Jan 03, 2024 2:49:29 PM org.apache.coyote.AbstractProtocol destroy
INFO: Destroying ProtocolHandler ["http-nio-9797"]
```

The status bar at the bottom shows "0 items selected", "29°C Haze", and the date/time "03-01-2024 14:50".

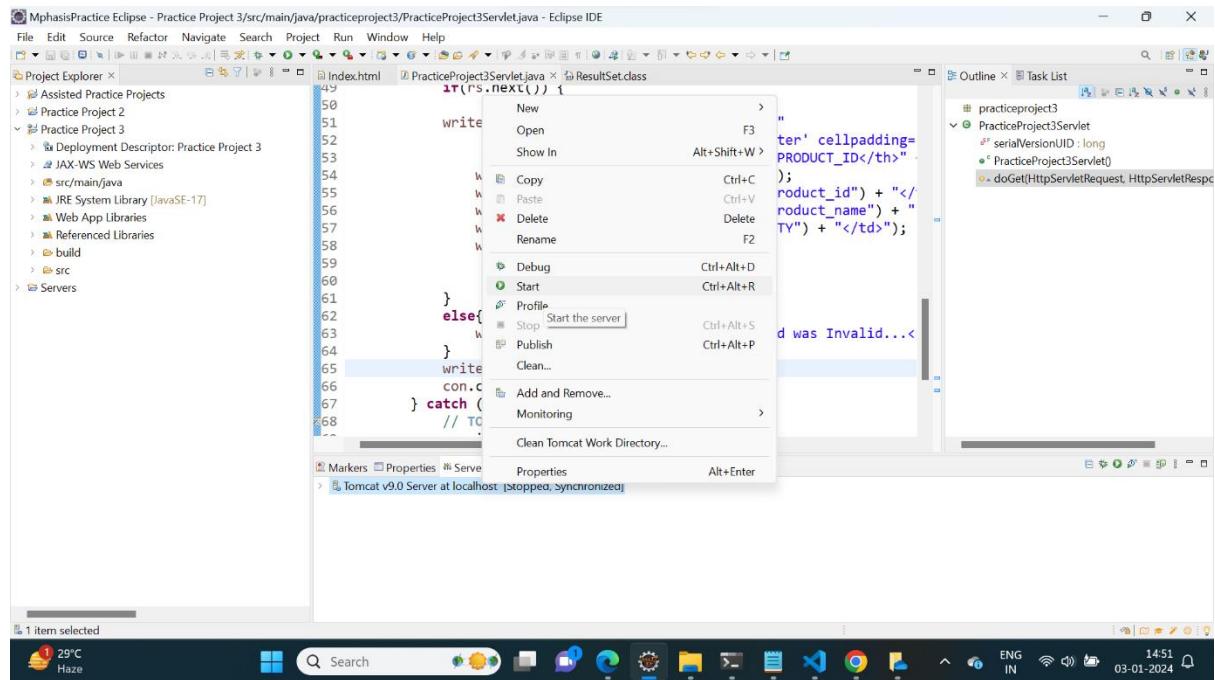
PRACTICE PROJECT 3



PRACTICE PROJECT 3



PRACTICE PROJECT 3



Modify the server ports.

Port Name	Port Number
Tomcat admin port	-
HTTP/1.1	9797

MIME Mappings

```

MphasisPractice Eclipse - Tomcat v9.0 Server at localhost - Eclipse IDE
File Edit Navigate Search Project Run Window Help
Tomcat v9.0 Server at localhost [Apache Tomcat] C:\eclipse\plugins\org.eclipse.jst\openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v20211116-1657\jre\bin\javaw.exe (03-Jan-2024, 2:52:03 pm)
Jan 03, 2024 2:52:04 PM org.apache.catalina.startup.VersionLoggerListener log
INFO: Command line argument: --add-opens=java.rmi/sun.rmi.transport=ALL-UNNAMED
Jan 03, 2024 2:52:04 PM org.apache.catalina.startup.VersionLoggerListener log
INFO: Command line argument: -Dfile.encoding=Cp1252
Jan 03, 2024 2:52:04 PM org.apache.catalina.startup.VersionLoggerListener log
INFO: Command line argument: -XX:+ShowCodeDetailsInExceptionMessages
Jan 03, 2024 2:52:04 PM org.apache.catalina.core.AprLifecycleListener lifecycleEvent
INFO: Loaded Apache Tomcat Native library [1.2.35] using APR version [1.7.0].
Jan 03, 2024 2:52:04 PM org.apache.catalina.core.AprLifecycleListener lifecycleEvent
INFO: APR capabilities: IPv6 [true], sendfile [true], accept filters [false], random [true], UDS [true].
Jan 03, 2024 2:52:04 PM org.apache.catalina.core.AprLifecycleListener lifecycleEvent
INFO: APR/OpenSSL configuration: useAprConnector [false], useOpenSSL [true]
Jan 03, 2024 2:52:04 PM org.apache.catalina.core.AprLifecycleListener initializeSSL
INFO: OpenSSL successfully initialized [OpenSSL 1.1.1q 5 Jul 2022]
Jan 03, 2024 2:52:04 PM org.apache.coyote.AbstractProtocol init
INFO: Initializing ProtocolHandler ["http-nio-9797"]
Jan 03, 2024 2:52:04 PM org.apache.catalina.startup.Catalina load
INFO: Server initialization in [469] milliseconds
Jan 03, 2024 2:52:04 PM org.apache.catalina.core.StandardService startInternal
INFO: Starting service [Catalina]
Jan 03, 2024 2:52:04 PM org.apache.catalina.core.StandardEngine startInternal
INFO: Starting Servlet engine: [Apache Tomcat/9.0.71]
Jan 03, 2024 2:52:04 PM org.apache.jasper.servlet.TldScanner scanJars
INFO: At least one JAR was scanned for TLDs yet contained no TLDs. Enable debug logging for this logger for a complete list of JARs that were
Jan 03, 2024 2:52:04 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-nio-9797"]
Jan 03, 2024 2:52:04 PM org.apache.catalina.startup.Catalina start
INFO: Server startup in [569] milliseconds

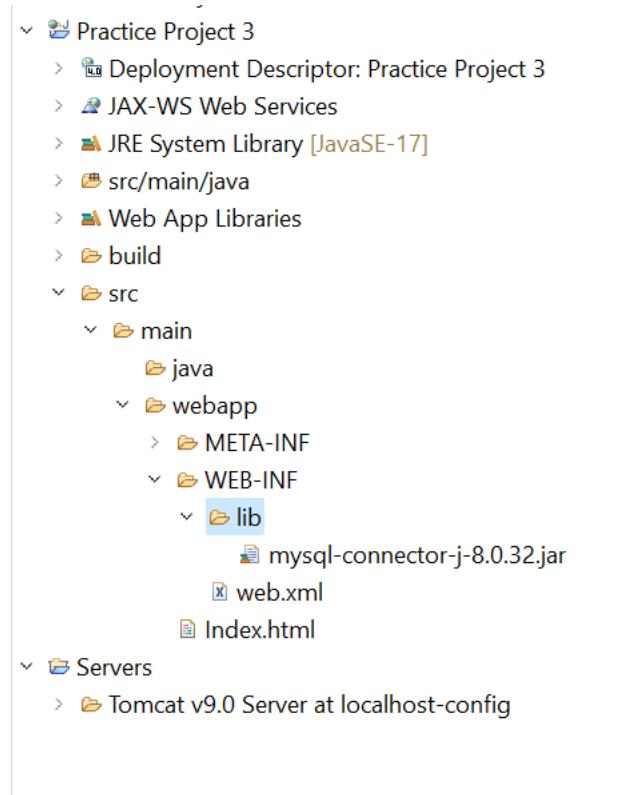
```

PRACTICE PROJECT 3

Step 5:

Add mysql jar file in the lib folder of the project

GO to eclipse go to project -> Webapp -> WEB-INF -> lib paste the jar file.



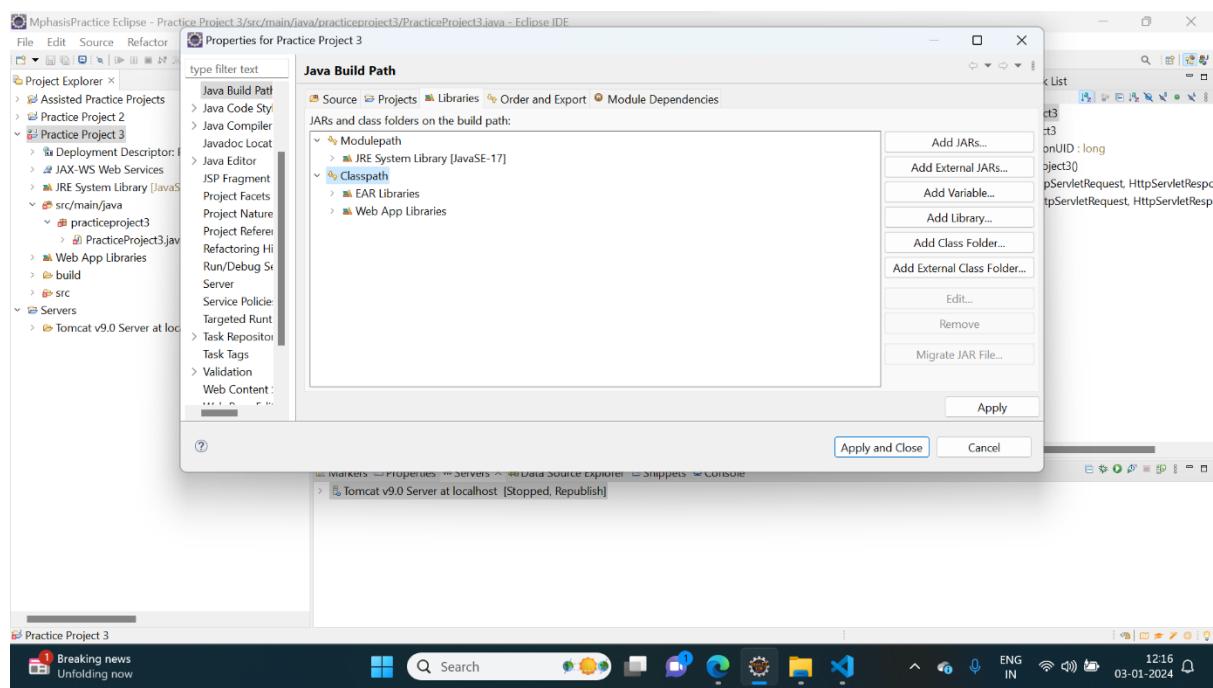
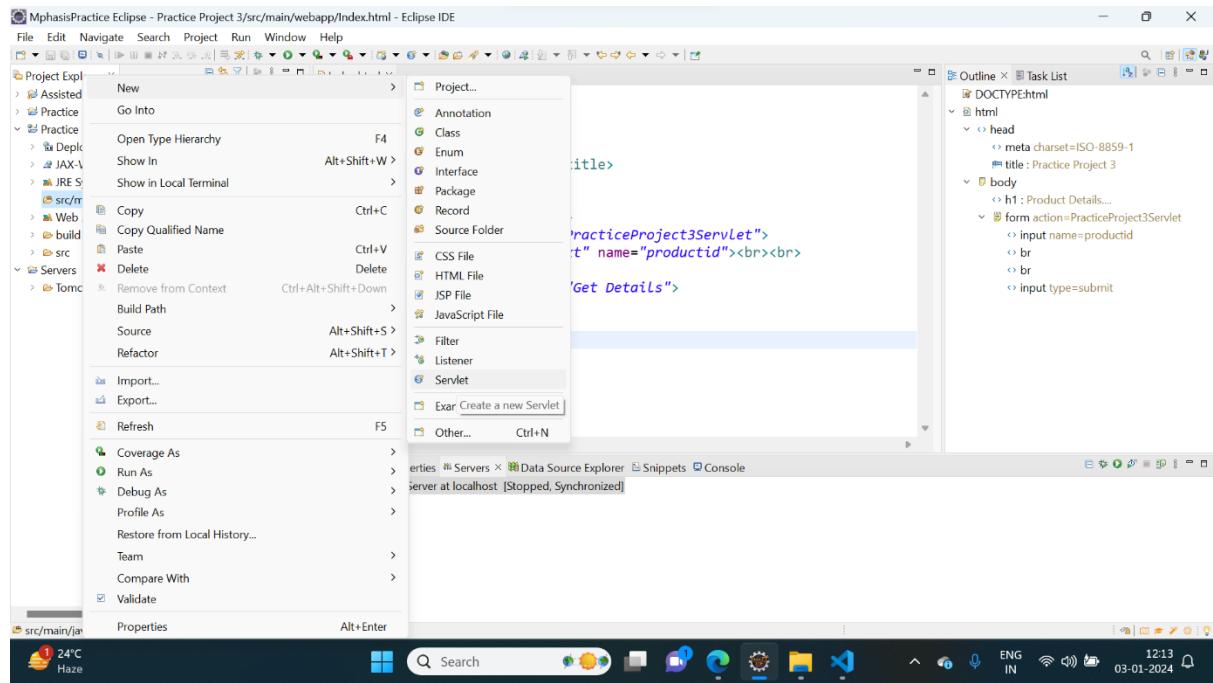
Step 6:

Go to java resources folder -> go to src folder -> right click new servelet -> Give a packagename -> give class name -> click on next select URL mapping -> click on finish.

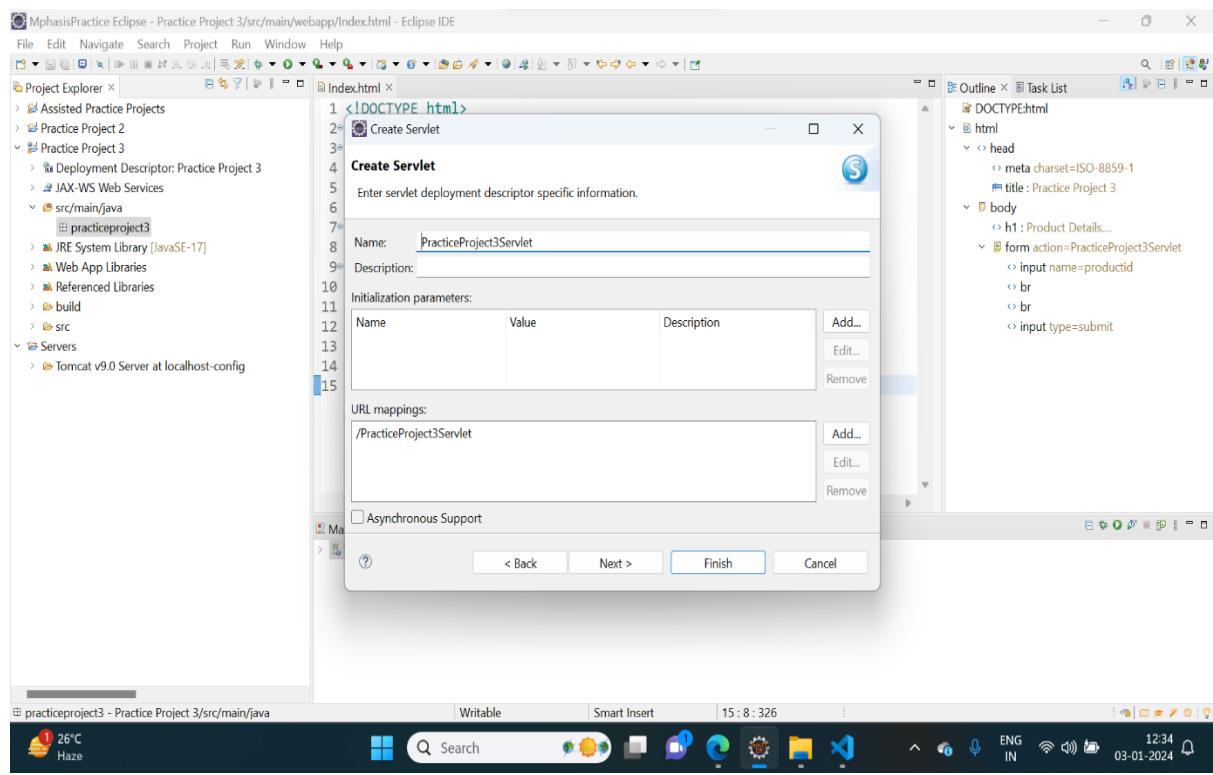
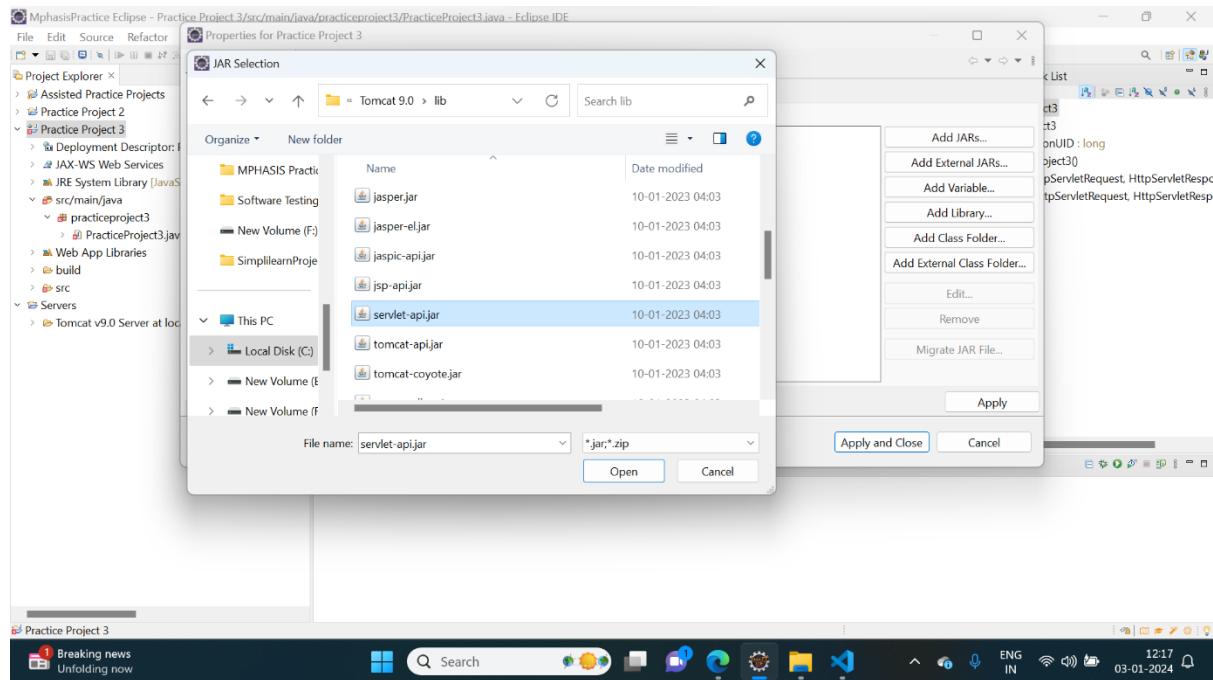
Now add servlet jar file in the project right click on the project -> build path -> configure build path -> libraries tab -> click on ADD external jars -> downloadsfolder -> lib folder -> servlet-api.jar file -> press ok -> press apply and close.

Now all the errors on servlet file will be gone.

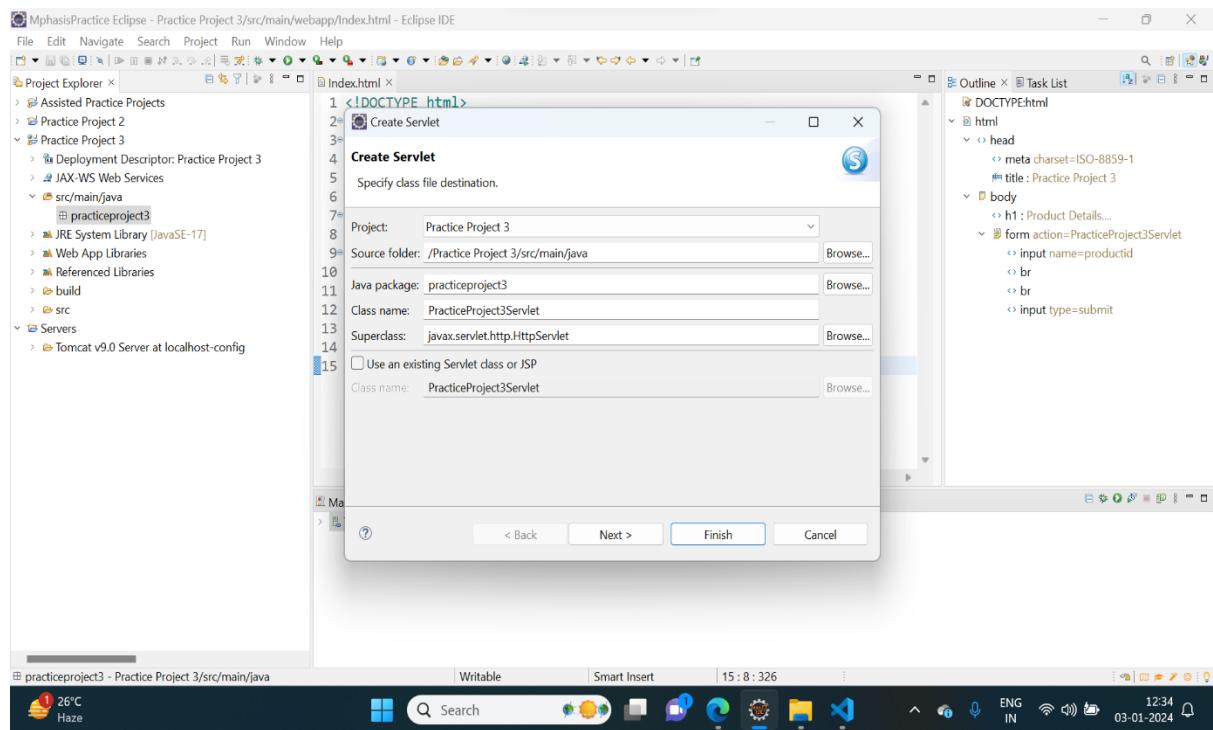
PRACTICE PROJECT 3



PRACTICE PROJECT 3



PRACTICE PROJECT 3

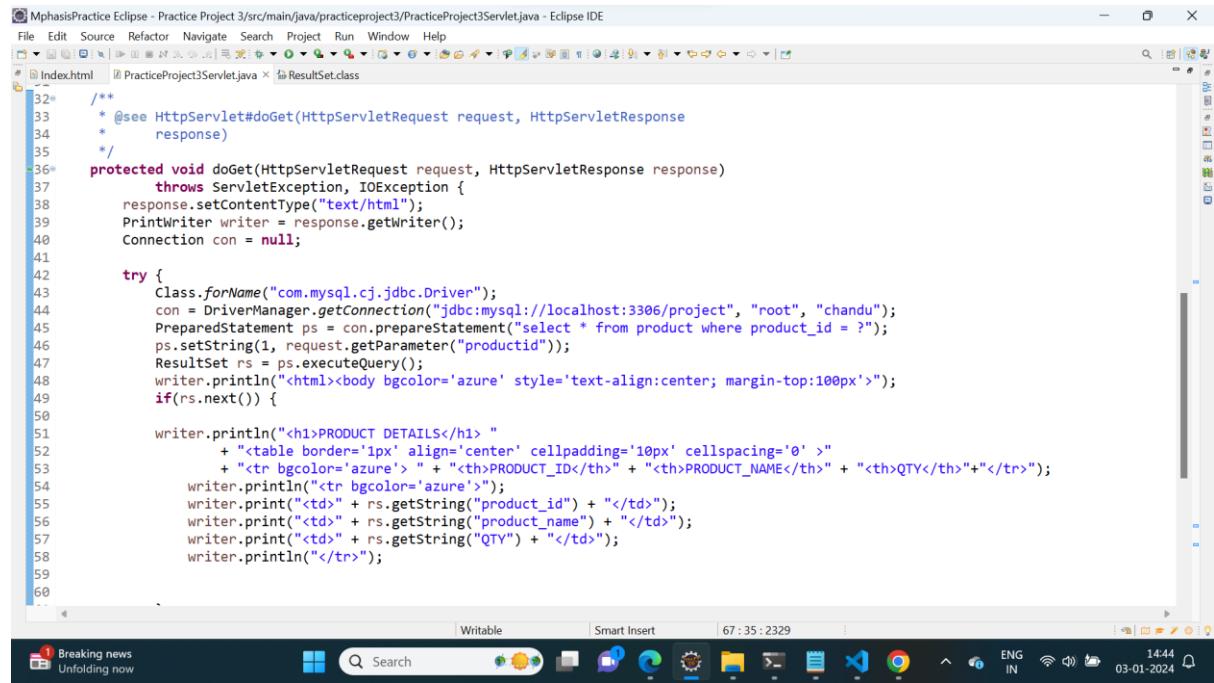


```
File Edit Source Refactor Navigate Search Project Run Window Help
Project Explorer Index.html PracticeProject3Servlet.java
1 package practiceproject3;
2
3 import java.io.IOException;
4
5 /**
6  * Servlet implementation class PracticeProject3Servlet
7  */
8 @WebServlet("/PracticeProject3Servlet")
9 public class PracticeProject3Servlet extends HttpServlet {
10     private static final long serialVersionUID = 1L;
11
12     /**
13      * @see HttpServlet#HttpServlet()
14      */
15     public PracticeProject3Servlet() {
16         super();
17         // TODO Auto-generated constructor stub
18     }
19
20     /**
21      * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse response)
22      */
23     protected void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
24         // TODO Auto-generated method stub
25         response.getWriter().append("Served at: ").append(request.getContextPath());
26     }
27
28     /**
29      * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
30      */
31 }
```

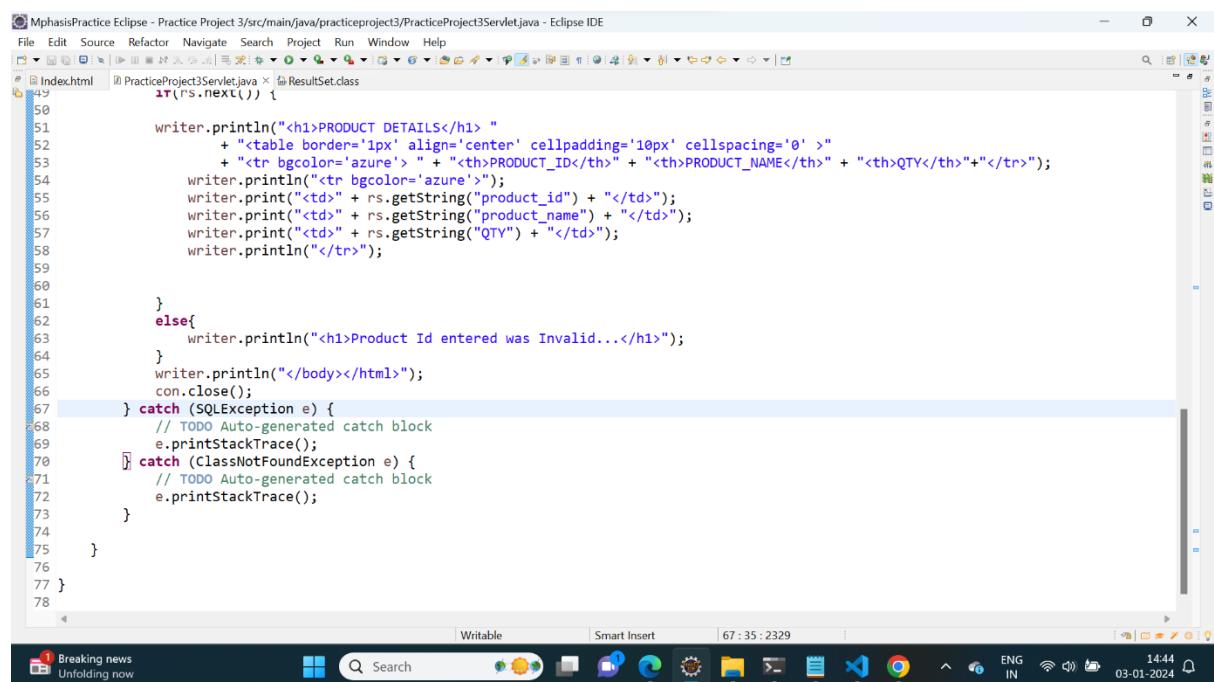
PRACTICE PROJECT 3

Step 7:

Write the Code in the doGet() method and update the index.html also with action to servlet name.



```
/*
 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
 *      response)
 */
protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
    response.setContentType("text/html");
    PrintWriter writer = response.getWriter();
    Connection con = null;
    try {
        Class.forName("com.mysql.cj.jdbc.Driver");
        con = DriverManager.getConnection("jdbc:mysql://localhost:3306/project", "root", "chandu");
        PreparedStatement ps = con.prepareStatement("select * from product where product_id = ?");
        ps.setString(1, request.getParameter("productid"));
        ResultSet rs = ps.executeQuery();
        writer.println("<html><body bgcolor='azure' style='text-align:center; margin-top:100px'>");
        if(rs.next()) {
            writer.println("<h1>PRODUCT DETAILS</h1> "
                    + "<table border='1px' align='center' cellpadding='10px' cellspacing='0' > "
                    + "<tr bgcolor='azure'> " + "<th>PRODUCT_ID</th>" + "<th>PRODUCT_NAME</th>" + "<th>QTY</th>" + "</tr>");
            writer.println("<td>" + rs.getString("product_id") + "</td>");
            writer.print("<td>" + rs.getString("product_name") + "</td>");
            writer.print("<td>" + rs.getString("QTY") + "</td>");
            writer.println("</tr>");
        }
        writer.println("</body></html>");
    } catch (SQLException e) {
        // TODO Auto-generated catch block
        e.printStackTrace();
    } catch (ClassNotFoundException e) {
        // TODO Auto-generated catch block
        e.printStackTrace();
    }
}
```

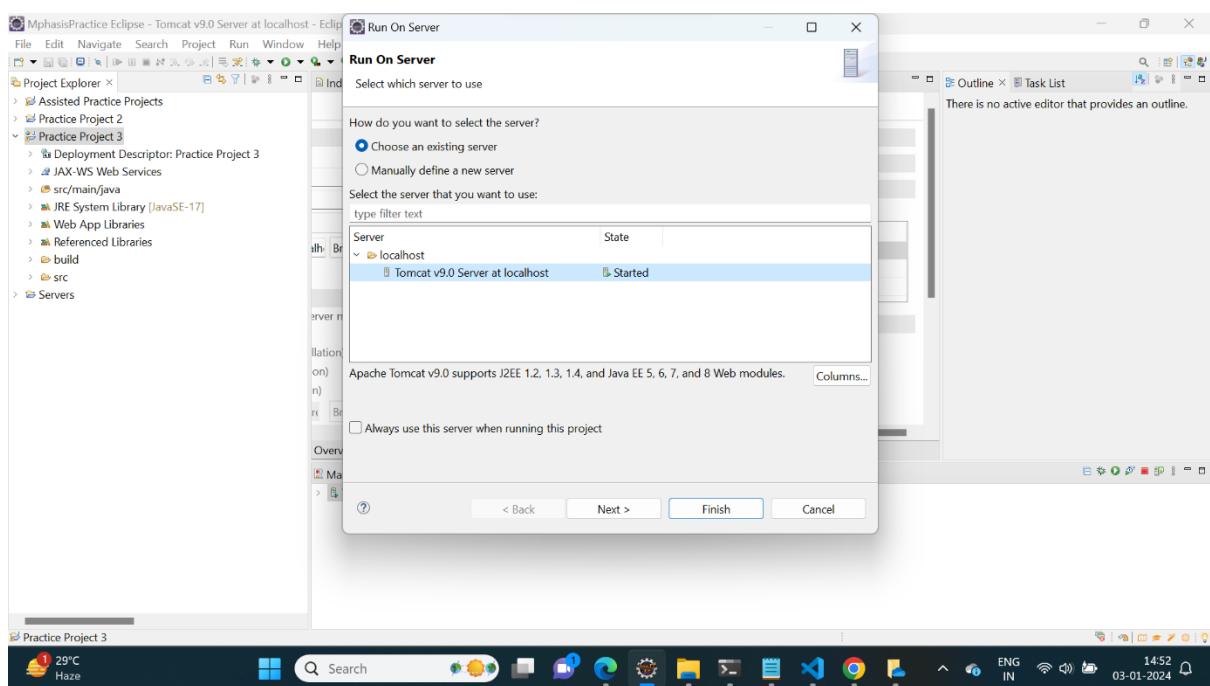
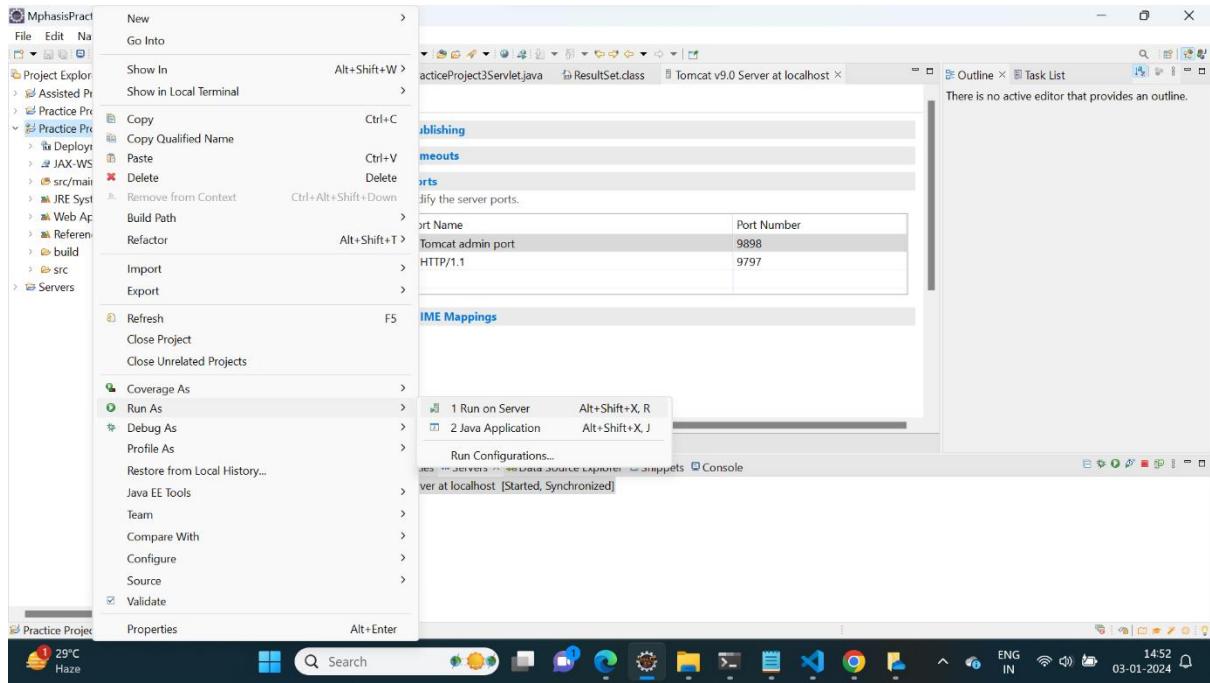


```
/*
 * @see HttpServlet#doGet(HttpServletRequest request, HttpServletResponse
 *      response)
 */
protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
    response.setContentType("text/html");
    PrintWriter writer = response.getWriter();
    Connection con = null;
    try {
        writer.println("<h1>PRODUCT DETAILS</h1> "
                    + "<table border='1px' align='center' cellpadding='10px' cellspacing='0' > "
                    + "<tr bgcolor='azure'> " + "<th>PRODUCT_ID</th>" + "<th>PRODUCT_NAME</th>" + "<th>QTY</th>" + "</tr>");
        writer.println("<td>" + rs.getString("product_id") + "</td>");
        writer.print("<td>" + rs.getString("product_name") + "</td>");
        writer.print("<td>" + rs.getString("QTY") + "</td>");
        writer.println("</tr>");
    } catch (SQLException e) {
        // TODO Auto-generated catch block
        e.printStackTrace();
    } catch (ClassNotFoundException e) {
        // TODO Auto-generated catch block
        e.printStackTrace();
    }
}
```

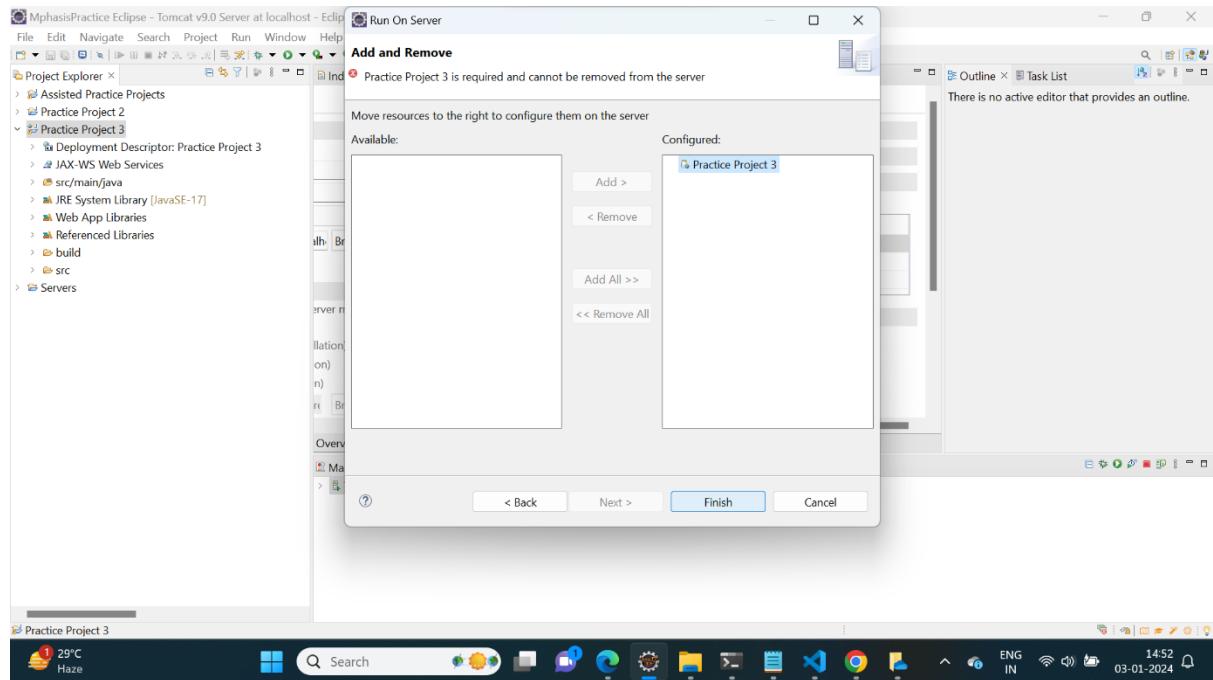
PRACTICE PROJECT 3

Step 8:

Now run the project right click on project -> go to run AS -> go to run on server -> In the wizard -> press next -> select your project click on finish.



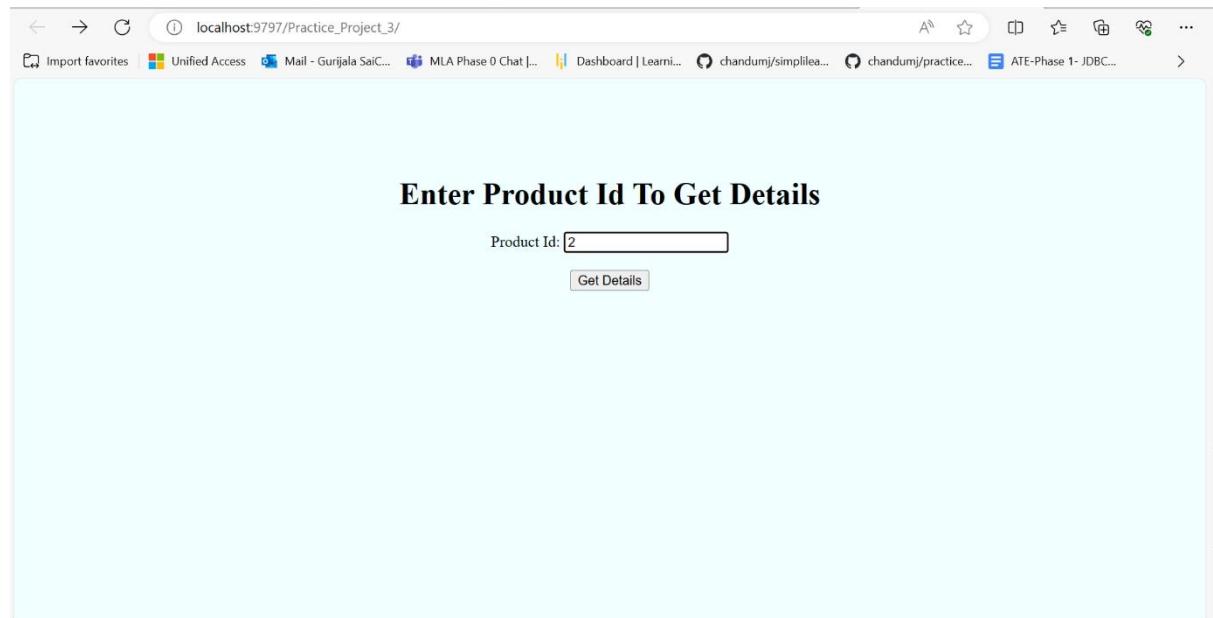
PRACTICE PROJECT 3



Step 9:

After running the project we will get output on browser displaying enter Product id to get details.

If we Enter **Valid product id** it will display the product details.



PRACTICE PROJECT 3

The screenshot shows a web browser window with the URL `localhost:9797/Practice_Project_3/PracticeProject3Servlet?productid=2`. The page title is "PRODUCT DETAILS". A table displays the following data:

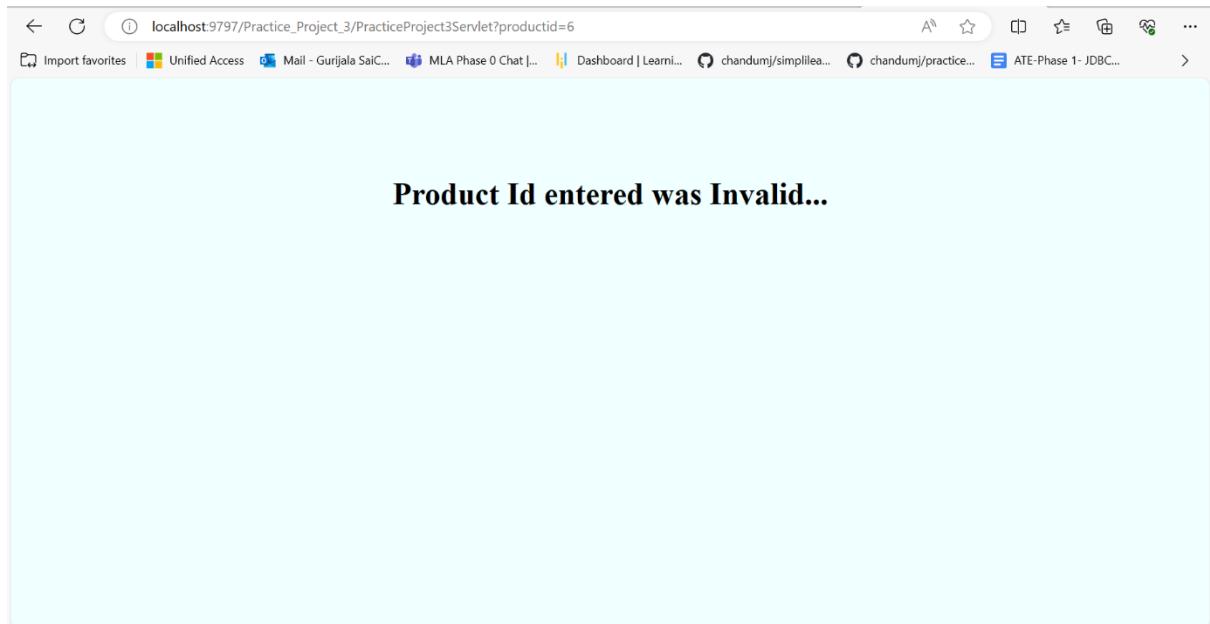
PRODUCT_ID	PRODUCT_NAME	QTY
2	Bags	10

If we Enter **Invalid product id** it will display Product id entered was Invalid.

The screenshot shows a web browser window with the URL `localhost:9797/Practice_Project_3/`. The page title is "Enter Product Id To Get Details". A form is present with the following fields:

Product Id:

PRACTICE PROJECT 3



GIT HUB LINK: [GitHub - chandumj/simplilearnprojects](https://github.com/chandumj/simplilearnprojects)