

JAVA J2EE JDBC SETUP

1. Download Eclipse IDE for Java EE Developers and extract it to a proper directory in your machine. (Recommended : Eclipse Photon R).

https://www.eclipse.org/downloads/download.php?file=/technology/epp/downloads/release/photon/R/eclipse-jee-photon-R-linux-gtk-x86_64.tar.gz

2. Download and Extract Apache Tomcat-8 Server to a proper directory in your machine

<https://dlcdn.apache.org/tomcat/tomcat-8/v8.5.82/bin/apache-tomcat-8.5.82.zip>

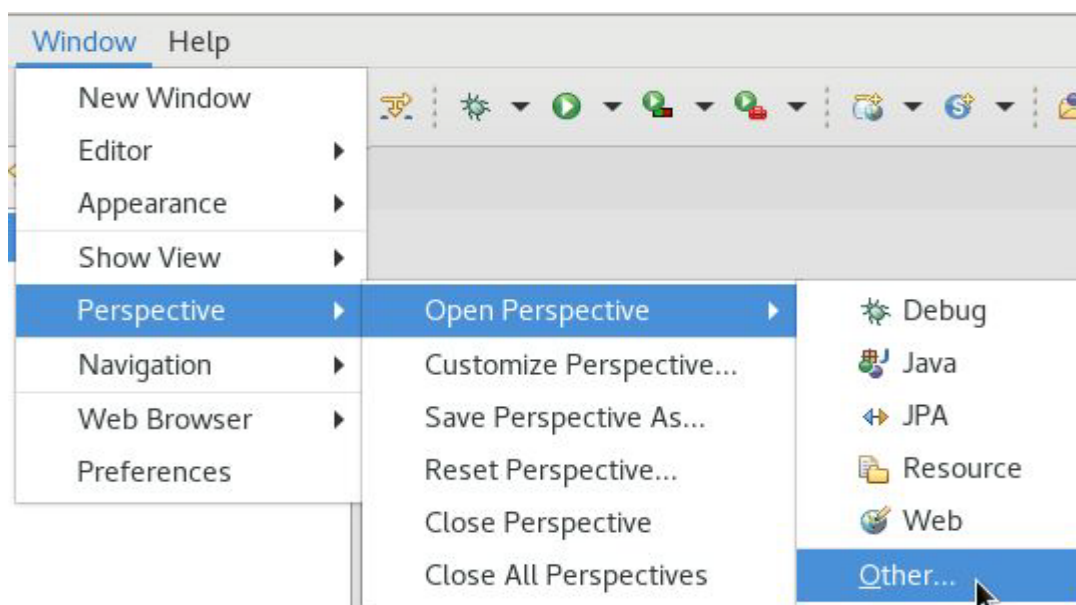
3. Download the Mysql JDBC Driver.

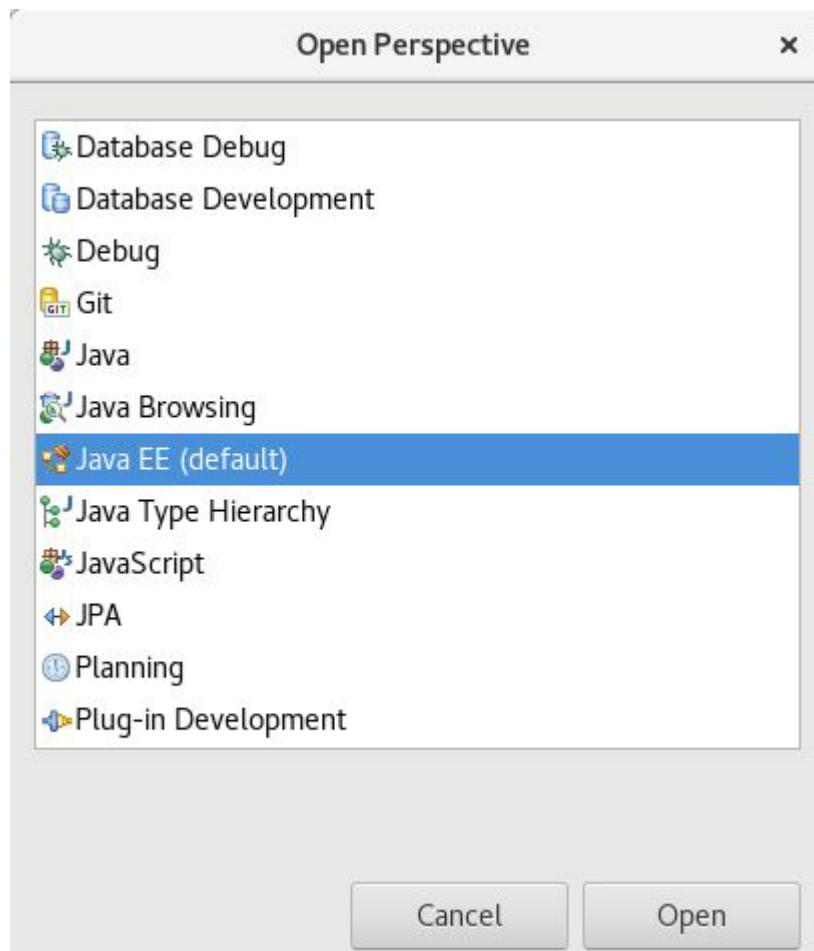
Go to <http://dev.mysql.com/downloads/connector/j> and within the dropdown select **"Platform Independent"** then it will show you the options to download tar.gz file or zip file.

Download zip file and extract it, within that you will find mysql-connector-XXX.jar file.

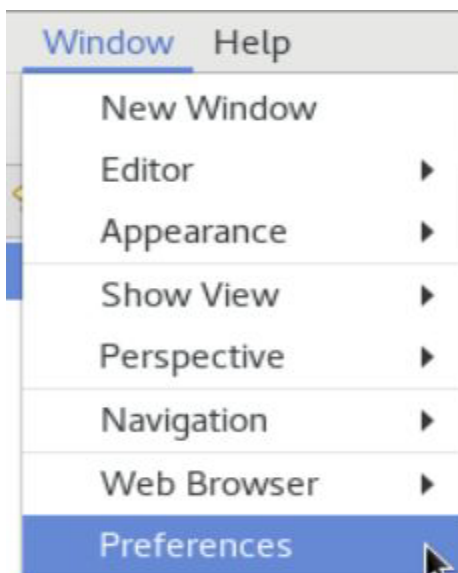
4. Launch your Eclipse IDE. Make sure that your Eclipse is set to default Java EE Perspective. From the menu bar, Window -> Perspective -> Open Perspective -> Other -> Java EE (default).

6. Launch your Eclipse IDE. Make sure that your Eclipse is set to default Java EE Perspective. From the menu bar, Window -> Perspective -> Open Perspective -> Other -> Java EE (default)






7. Add a Server to your Eclipse IDE. From menu bar, Window -> Preferences -> Server -> Runtime Environments.










Click on the Add button to add a new Apache Tomcat Server to your Development Environment.

New Server Runtime Environment 

Define a new server runtime environment


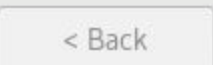
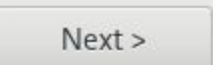
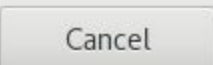

Select the type of runtime environment:

type filter text 

-  Apache Tomcat v4.1
-  Apache Tomcat v5.0
-  Apache Tomcat v5.5
-  Apache Tomcat v6.0
-  Apache Tomcat v7.0
-  Apache Tomcat v8.0

Apache Tomcat v7.0 supports J2EE 1.2, 1.3, 1.4, and Java EE 5 and 6 Web modules.

☐ Create a new local server

Select Apache Tomcat v7.0 and Click next

Tomcat Server

Specify the installation directory



Name:

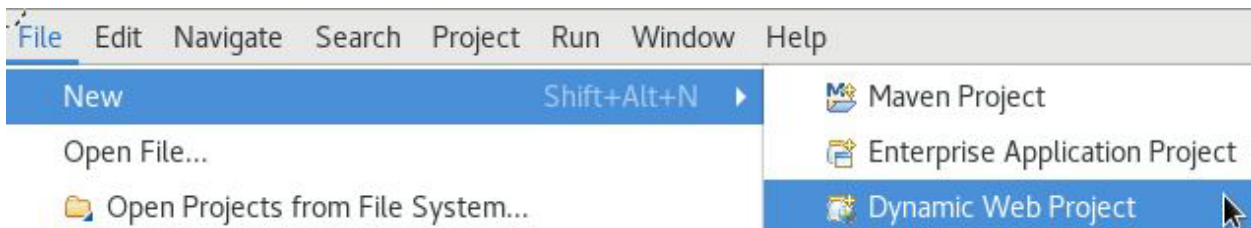
Tomcat installation directory:

apache-tomcat-7.0.47

JRE:


Mention the Tomcat Installation directory and hit finish.

8. Create a new Dynamic Web Project, From the menu bar, File -> New -> Dynamic Web Project.



Give a name to your project. Click Next.

New Dynamic Web Project ✕

Dynamic Web Project 

Create a standalone Dynamic Web project or add it to a new or existing Enterprise Application.

Project name:

Project location

☒ Use default location

Location:

Target runtime

Dynamic web module version

Configuration

A good starting point for working with Apache Tomcat v7.0 runtime. Additional facets can later be installed to add new functionality to the project.

EAR membership


☐ Add project to an EAR

EAR project name:

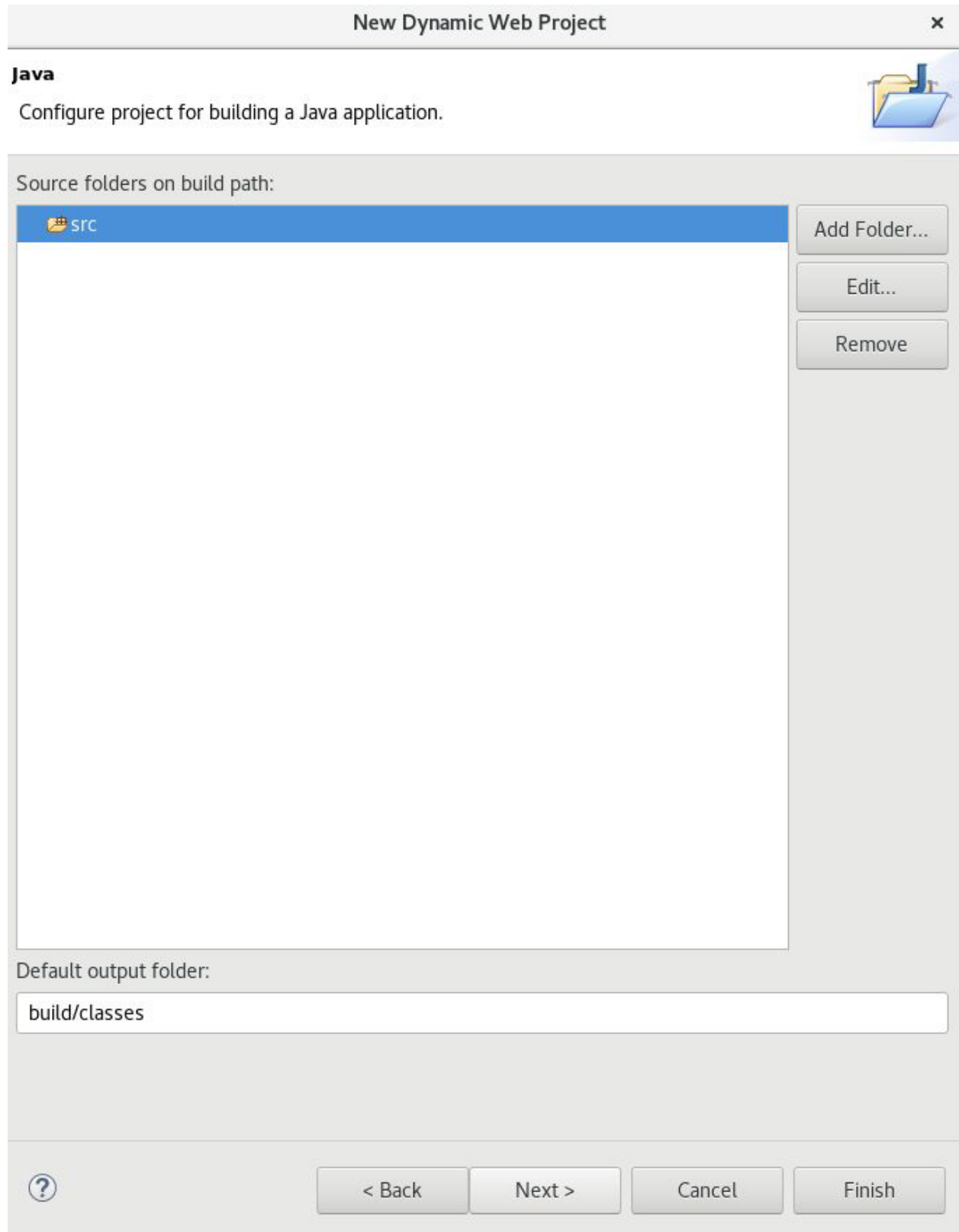
Working sets

☐ Add project to working sets

Working sets:




Click on "New Runtime" and choose the apache server in the target runtime tab. Then click Next



Select src as a source folder on build path and click Next

New Dynamic Web Project ✕


Web Module 

Configure web module settings.

Context root:

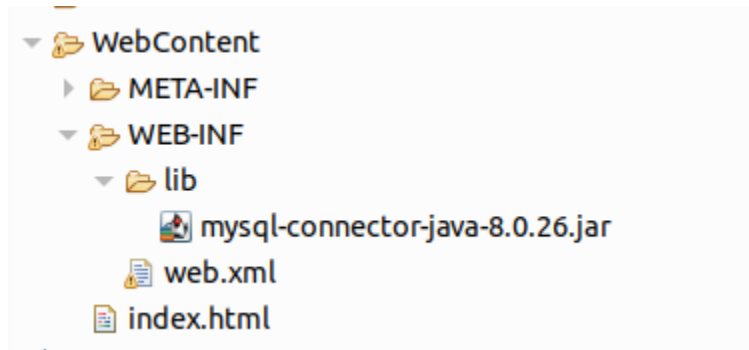
Content directory:

☒ Generate web.xml deployment descriptor

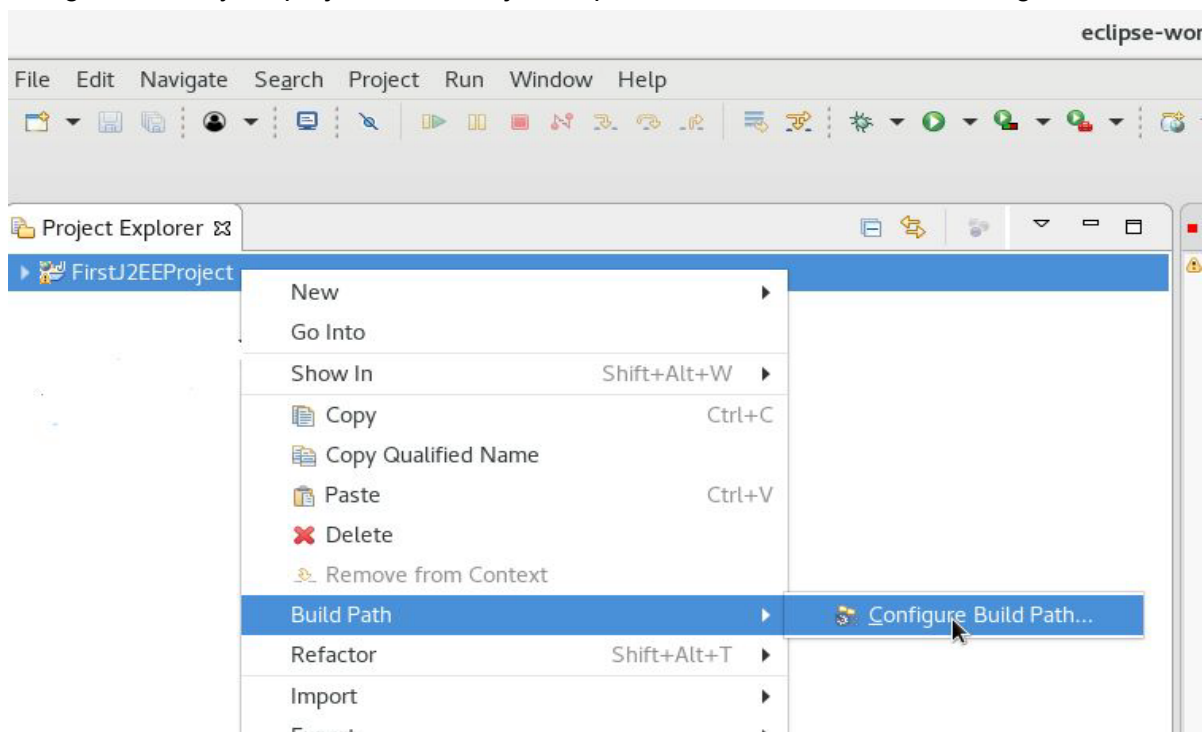


Don't forget to check-mark the Generate web.xml deployment descriptor. Then click finish

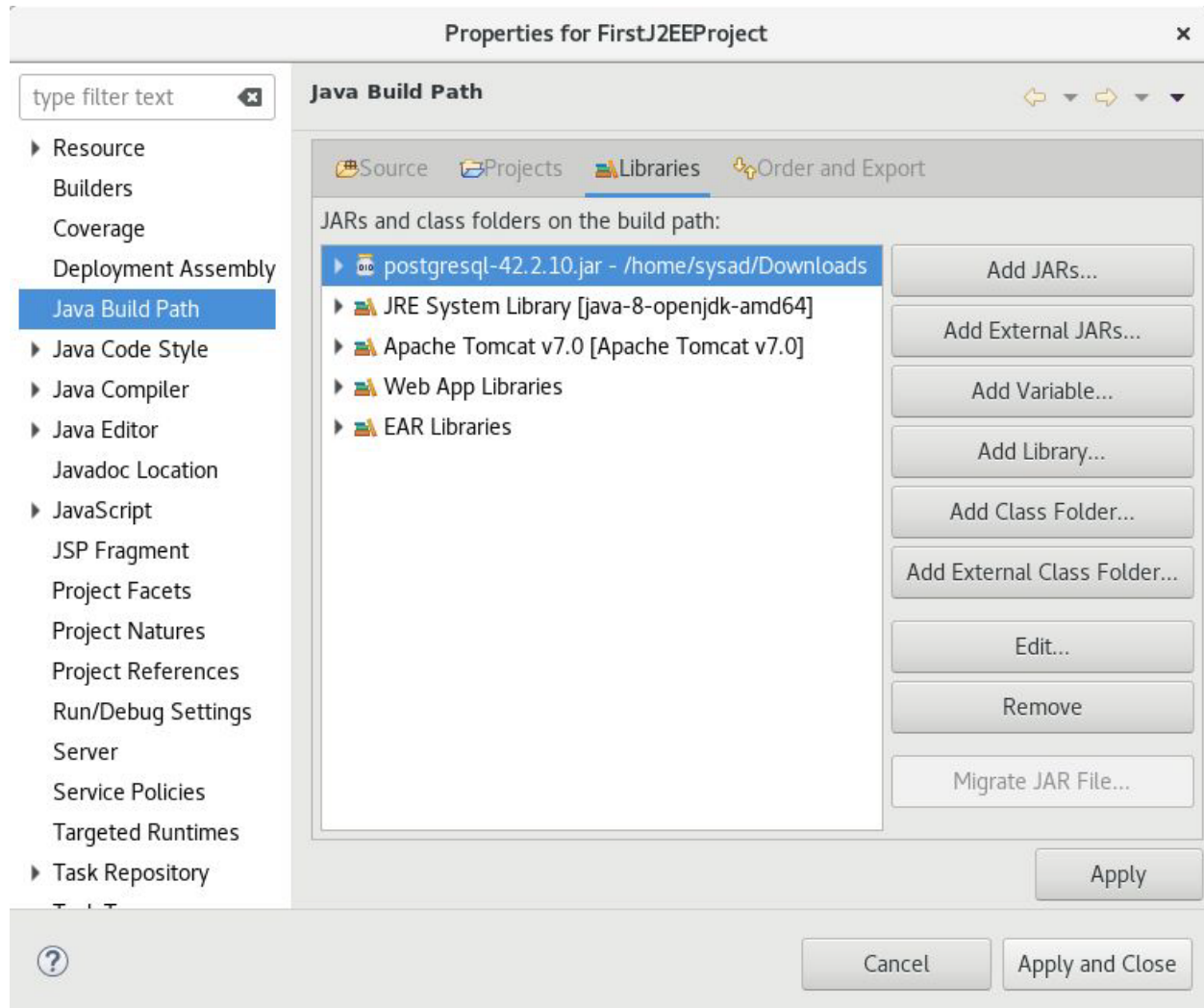
7. Copy and paste the downloaded Mysql java jdbc driver jar file in lib folder .This will be in WebContent->WEB-INF->lib



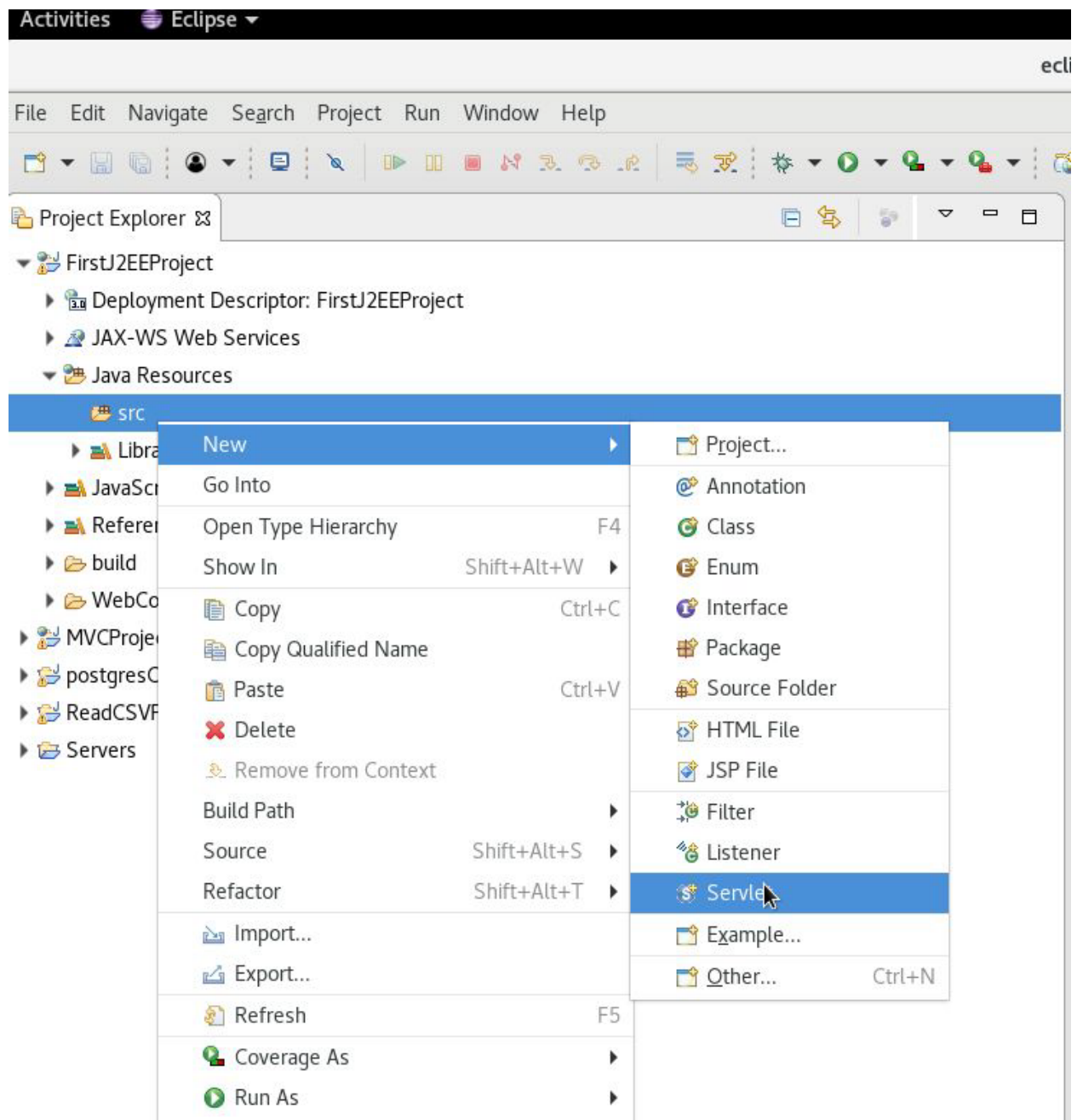
8. Right click on your project in the Project Explorer, then Build Path and Configure Build Path.



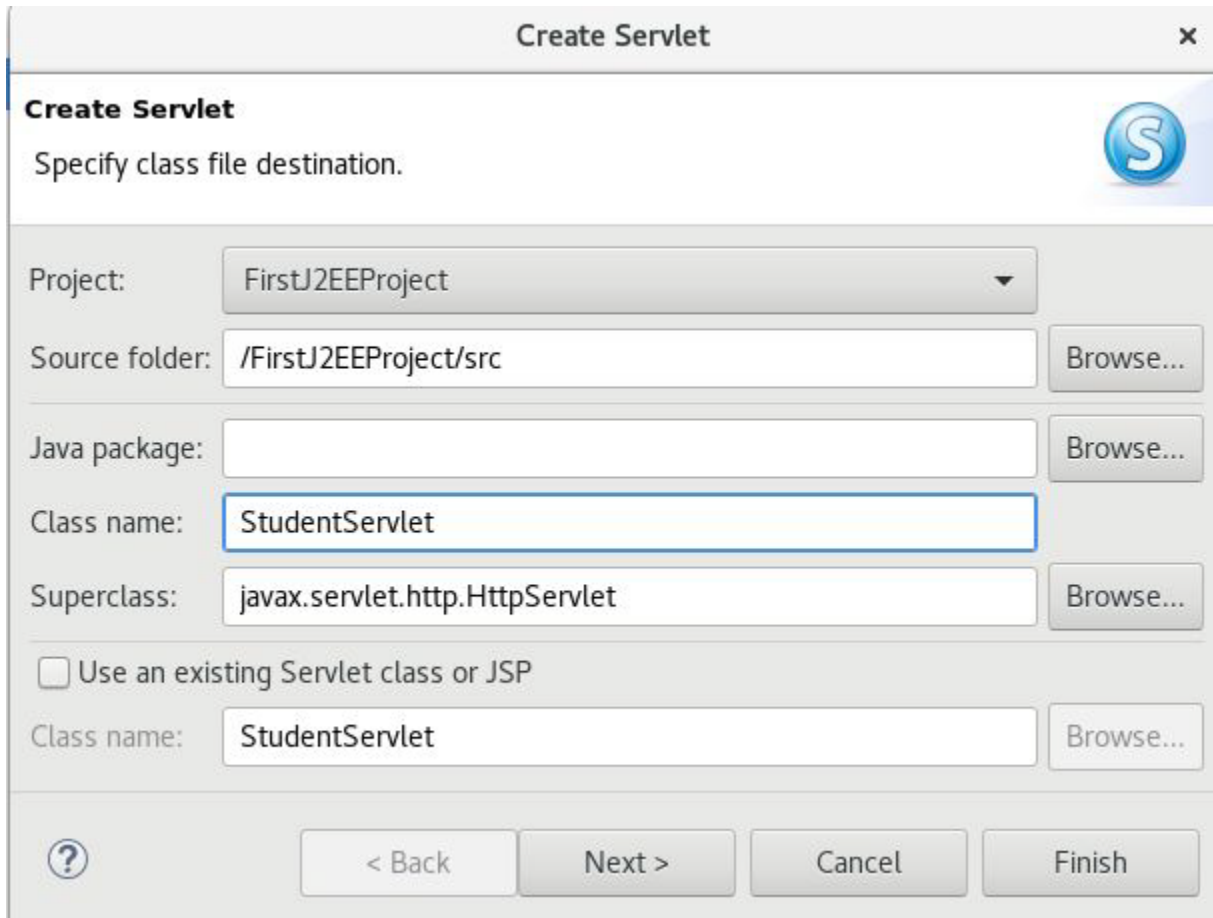
9. Goto the libraries tab --> Add external Jar -->Mysql.jar file. Click apply and close.



10. Right click on the project folder and then expand Java Resources. Then right click on src->New->Servlet.



11. Give the servlet name as StudentServlet. Then click Next and Finish.



The image shows a 'Create Servlet' dialog box with a title bar containing the text 'Create Servlet' and a close button (X). The main area has a header 'Create Servlet' and a sub-header 'Specify class file destination.' with a blue 'S' icon. The form contains several fields and buttons:

- Project:** A dropdown menu showing 'FirstJ2EEProject'.
- Source folder:** A text field containing '/FirstJ2EEProject/src' and a 'Browse...' button.
- Java package:** An empty text field and a 'Browse...' button.
- Class name:** A text field containing 'StudentServlet' (highlighted with a blue border).
- Superclass:** A text field containing 'javax.servlet.http.HttpServlet' and a 'Browse...' button.
- ☐ Use an existing Servlet class or JSP
- Class name:** A text field containing 'StudentServlet' and a 'Browse...' button.

At the bottom, there is a help icon (question mark) and four buttons: '< Back', 'Next >', 'Cancel', and 'Finish'.

Create Servlet

Create Servlet

Specify modifiers, interfaces to implement, and method stubs to generate.

Modifiers: ☒ public ☐ abstract ☐ final

Interfaces:

Add...

Remove

Which method stubs would you like to create?

☒ Constructors from superclass

☒ Inherited abstract methods

☐ init☐ destroy☐ getServletConfig

☐ getServletInfo☐ service☒ doGet

☒ doPost☐ doPut☐ doDelete

☐ doHead☐ doOptions☐ doTrace

?

< Back

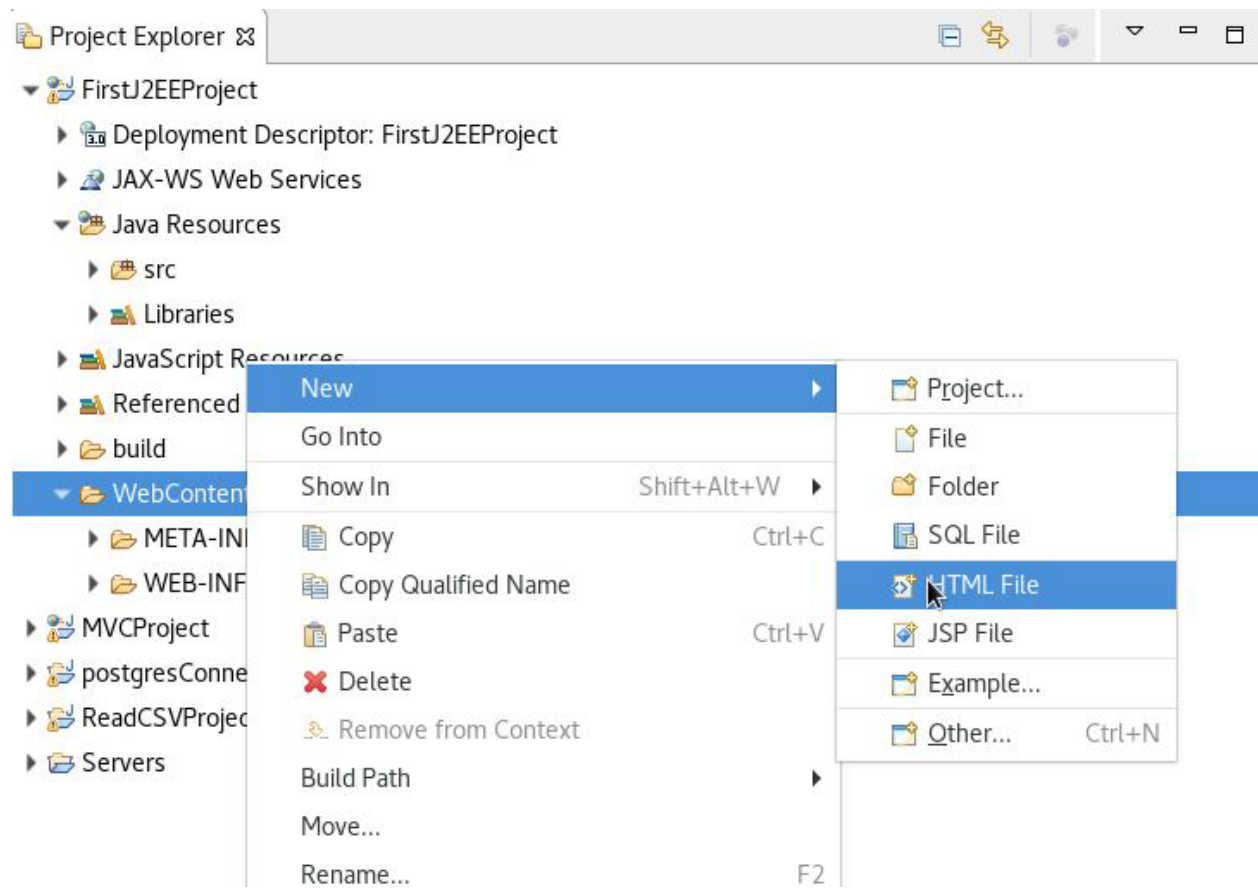
Next >

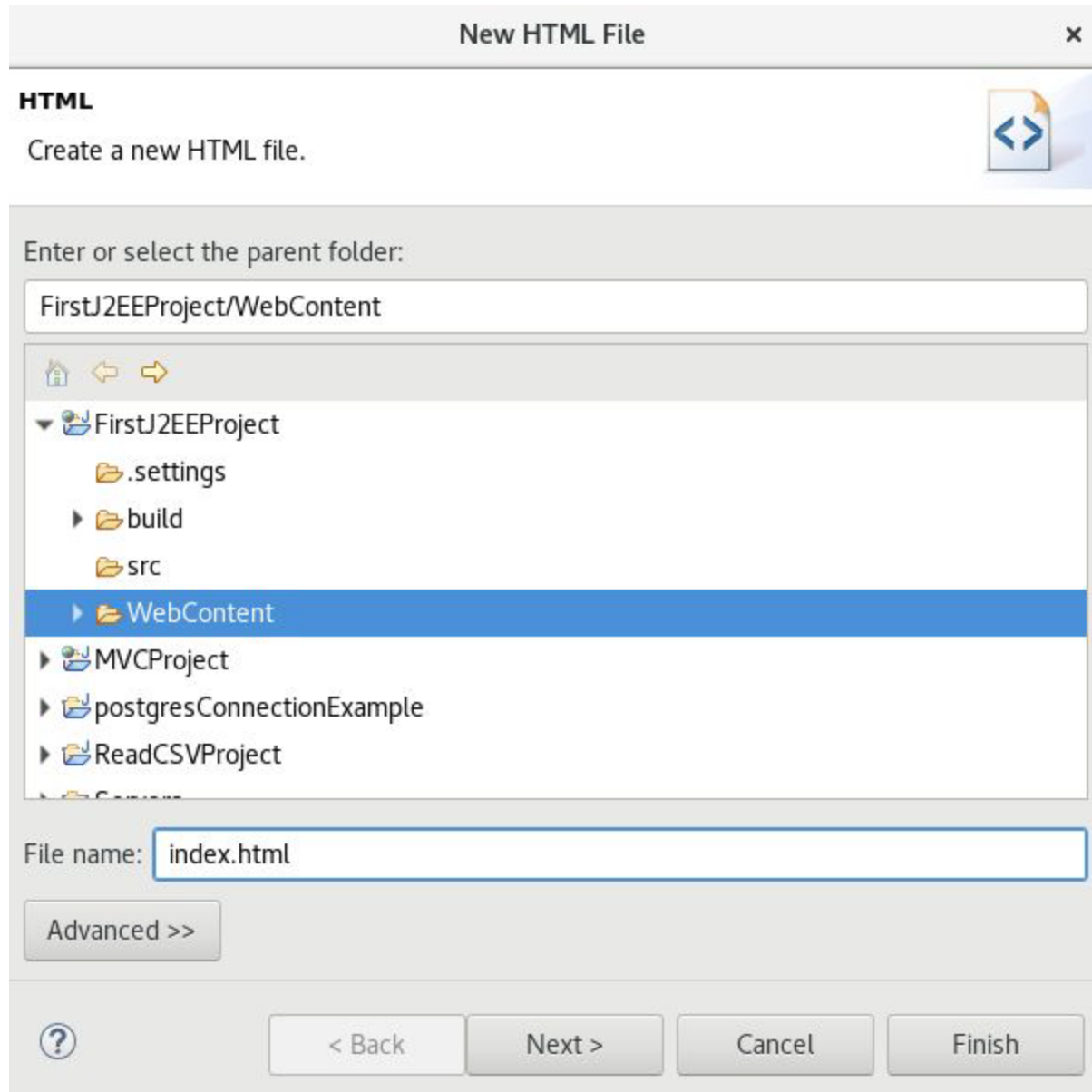
Cancel

Finish

11. Copy-paste the code shared as StudentServlet.java.(First remove everything from servlet file,then do copy-paste)

12. Then Right click on WebContent folder -> New -> HTML file.Give the file name as index.html.Click Finish.





13. Copy-paste the code shared as index.html.(First remove everything from index.html file,then do copy paste)

14. Now go to web.xml present in WebContent->WEB-INF.
Copy -paste the below code.This is known as servlet mapping.
This file can be opened as a text editor by right clicking and open with option.

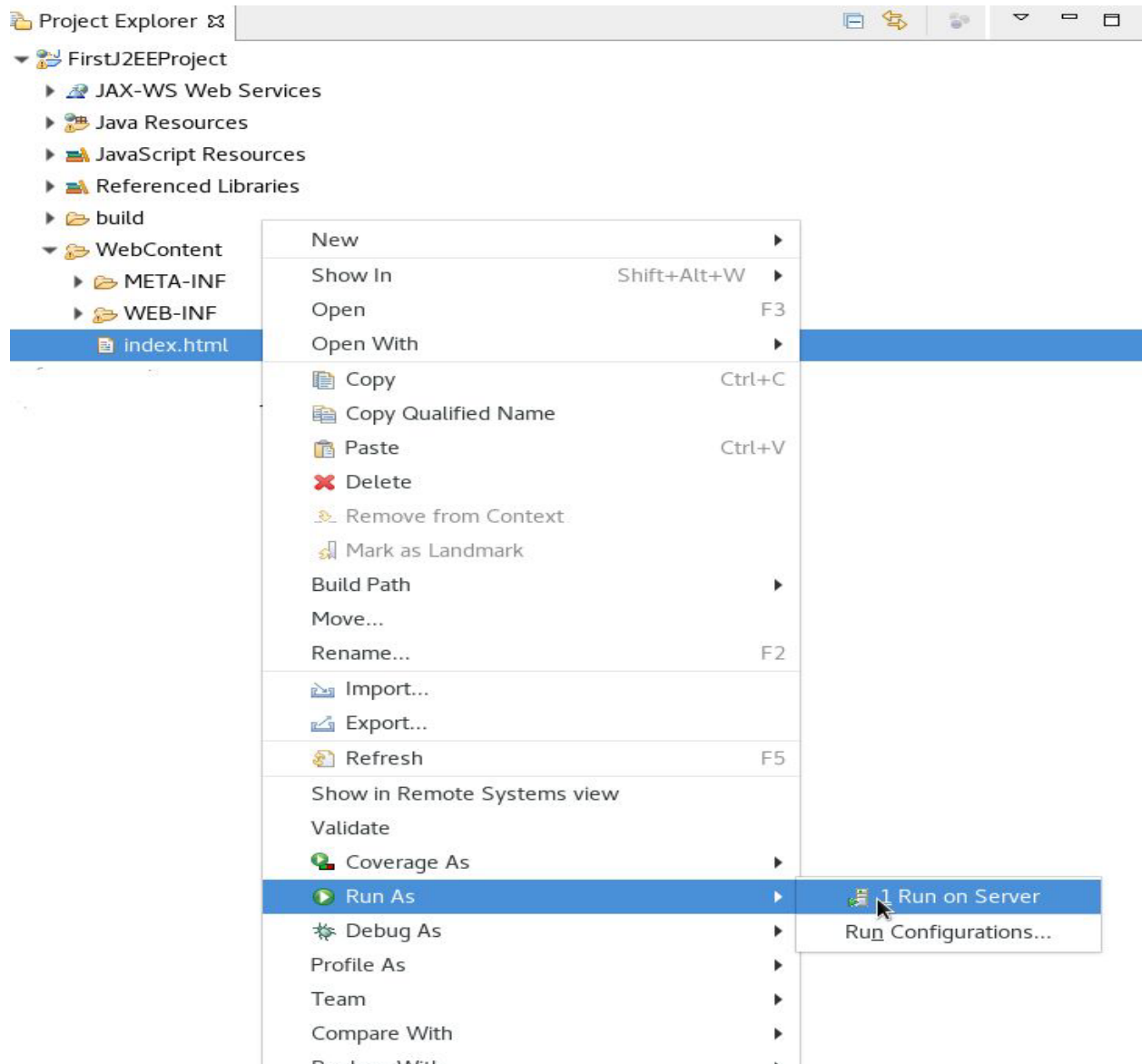
```
<?xml version="1.0" encoding="UTF-8"?>
<web-app>
<welcome-file-list>
<welcome-file>index.html</welcome-file>
</welcome-file-list>
```

```

<servlet>
<servlet-name>StudentServlet</servlet-name>
<servlet-class>StudentServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>StudentServlet</servlet-name>
<url-pattern>/StudentServlet</url-pattern>
</servlet-mapping>
</web-app>

```

15. Right click on index.html -> Run As -> Run On Server. Then click Finish.



16. You will get the index.html running on the browser.



A screenshot of a web browser window. The address bar shows 'localhost:8080/FirstJ2EEProject/index.html'. Below the address bar, there is a form with the label 'Enter Student Id:' followed by a text input field and a 'Submit' button.

17. Enter the id as 30772.

You should see the output as :



A screenshot of a web browser window. The address bar shows 'localhost:8080/FirstJ2EEProject1/StudentServlet?id=30772'. Below the address bar, the text 'Student id is 30772 Student name is Inoue' is displayed. Below this text, there is a line of text: '==== 1 rows found ====='.