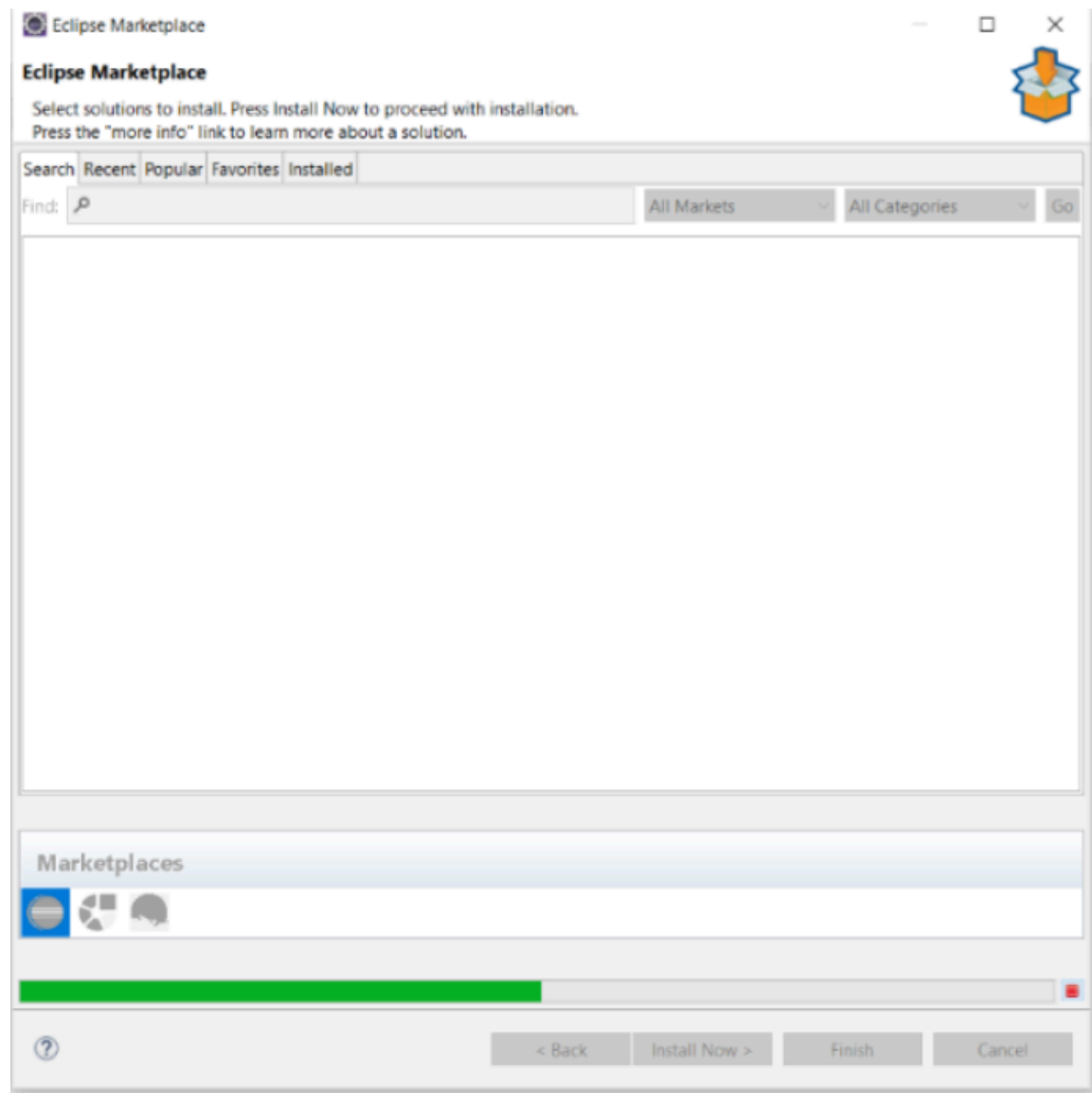
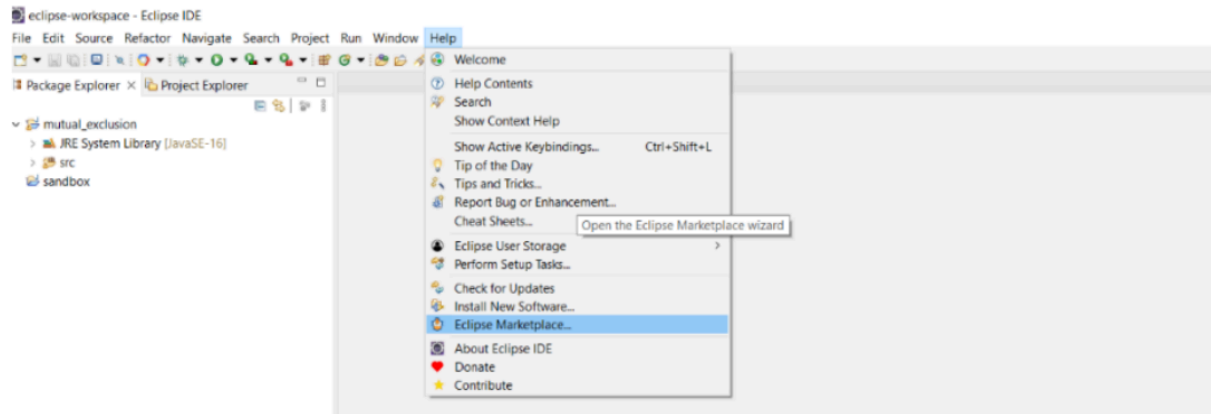


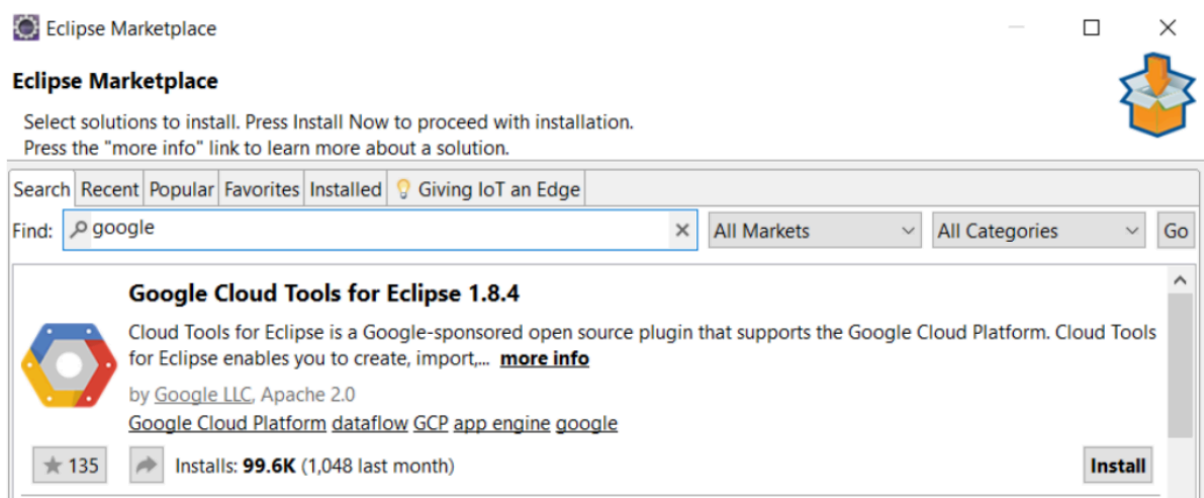
## Practical No: - 8.2

**Write a Program to developed an Application using Google App Engine by using Eclipse IDE**

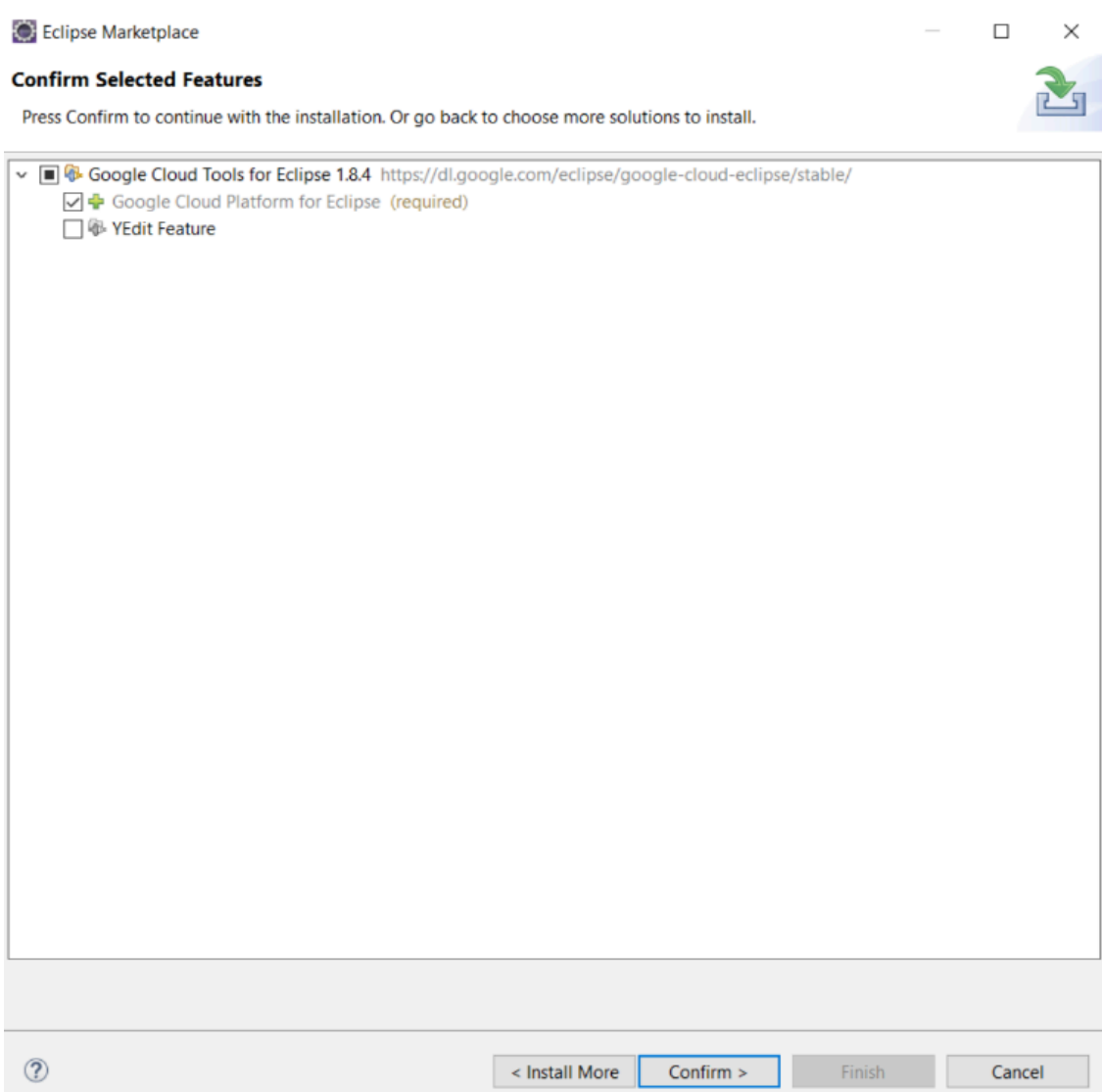
**Step 1: - Click on Help. Eclipse Marketplace**



**Step 2:** - Once the Eclipse Marketplace window appear in search textbox write “google” click on enter



**Step 3:** - Click on confirm

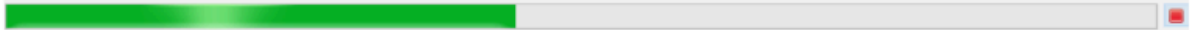


**Confirm Selected Features**

Press Confirm to continue with the installation. Or go back to choose more solutions to install.

- ▼ ☒ Google Cloud Tools for Eclipse 1.8.4 <https://dl.google.com/eclipse/google-cloud-eclipse/stable/>
- ☒ Google Cloud Platform for Eclipse (required)
- ☐ YEdit Feature

Calculating requirements and dependencies.



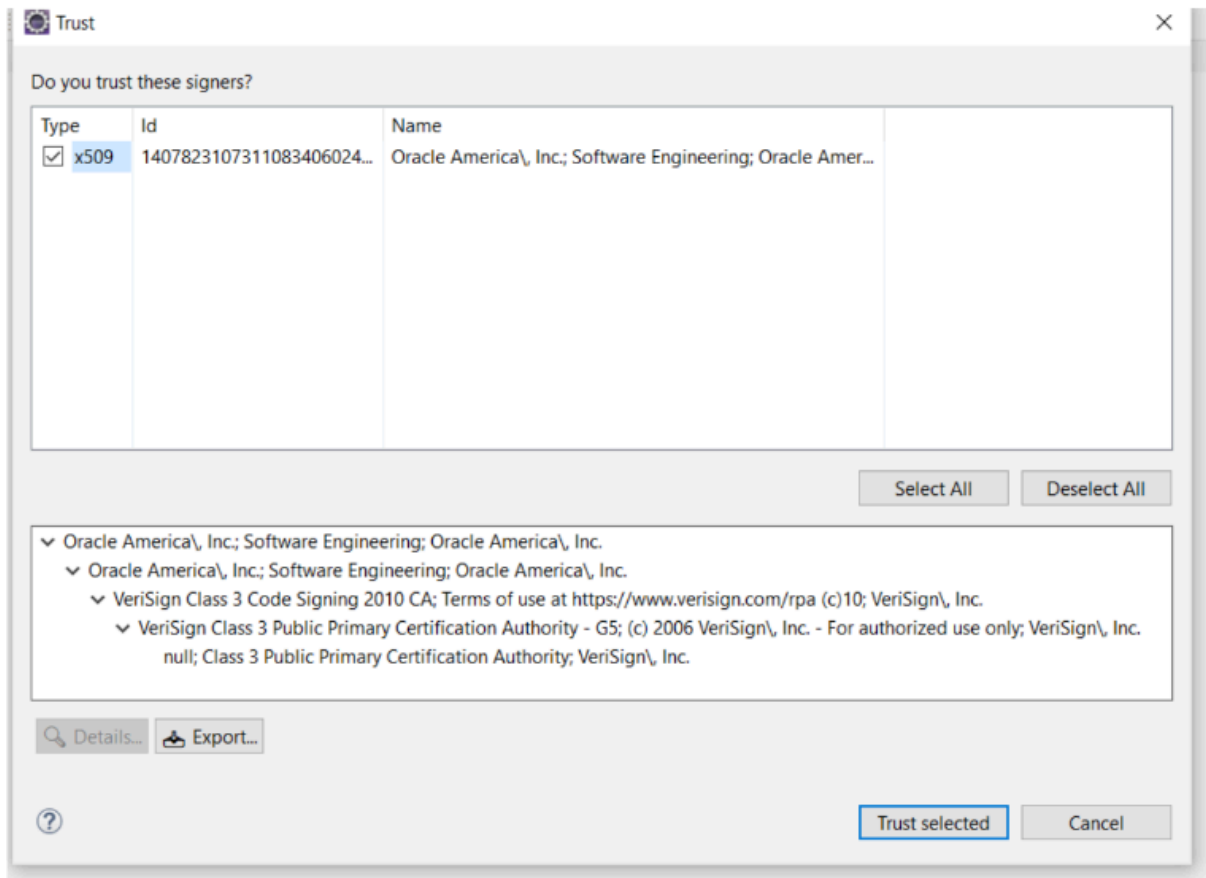
< Install More

Confirm >

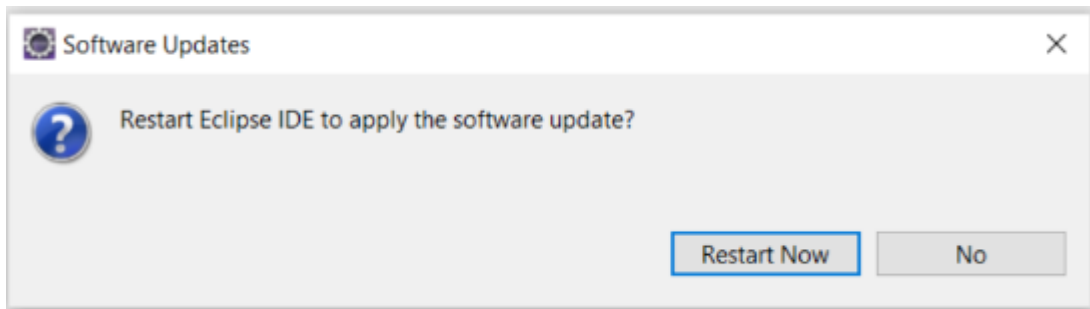
Finish

Cancel

**Step 4:** - Once the below window appear click on trust selected



**Step 5:** - Click on restart now



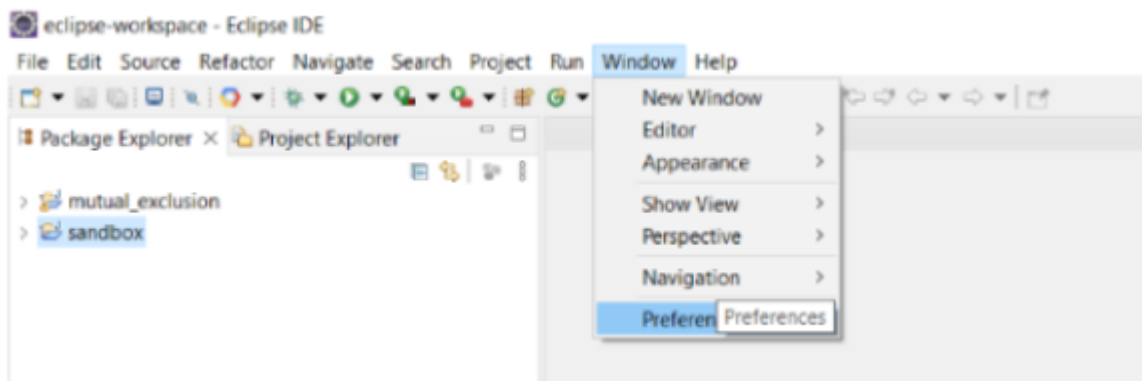
**Step 6:** - Below window will appear



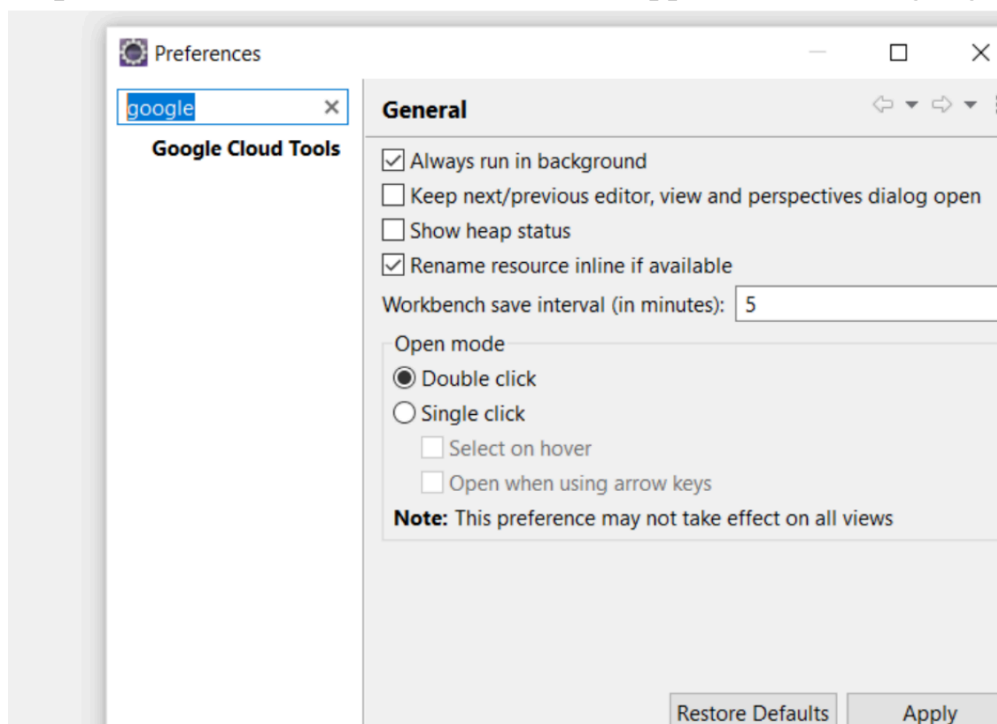
**Step 7:** - Below window will appear close the welcome page



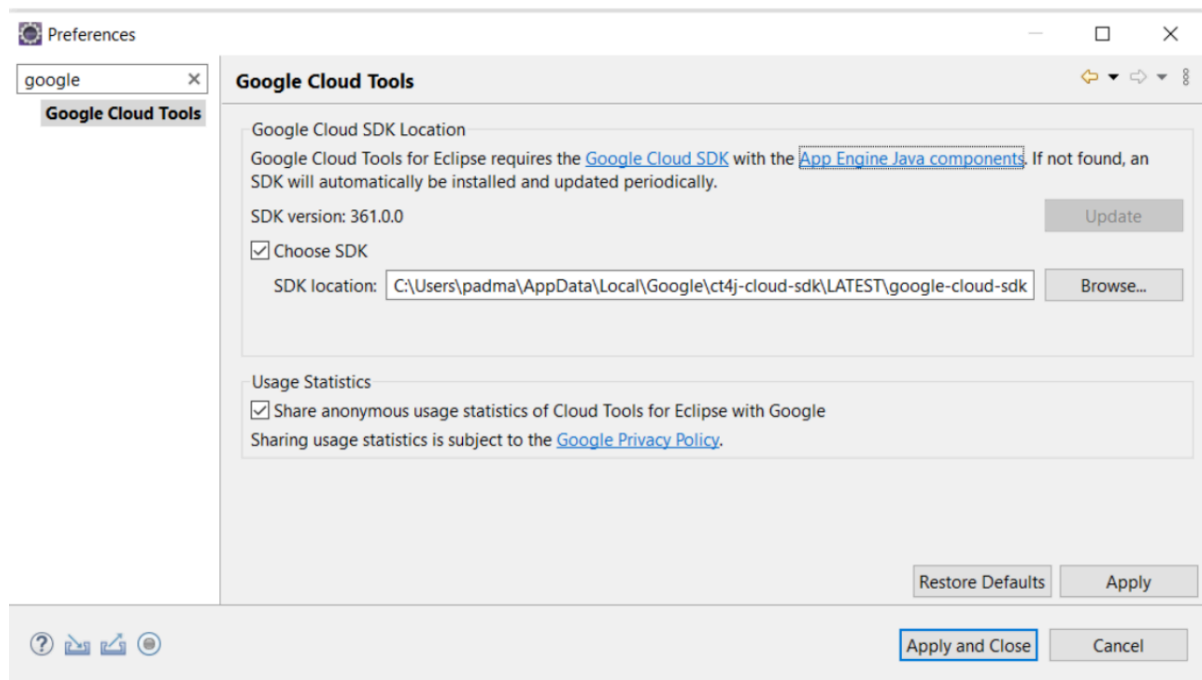
**Step 8:** - Once the eclipse window appear, click on Window -> Preferences



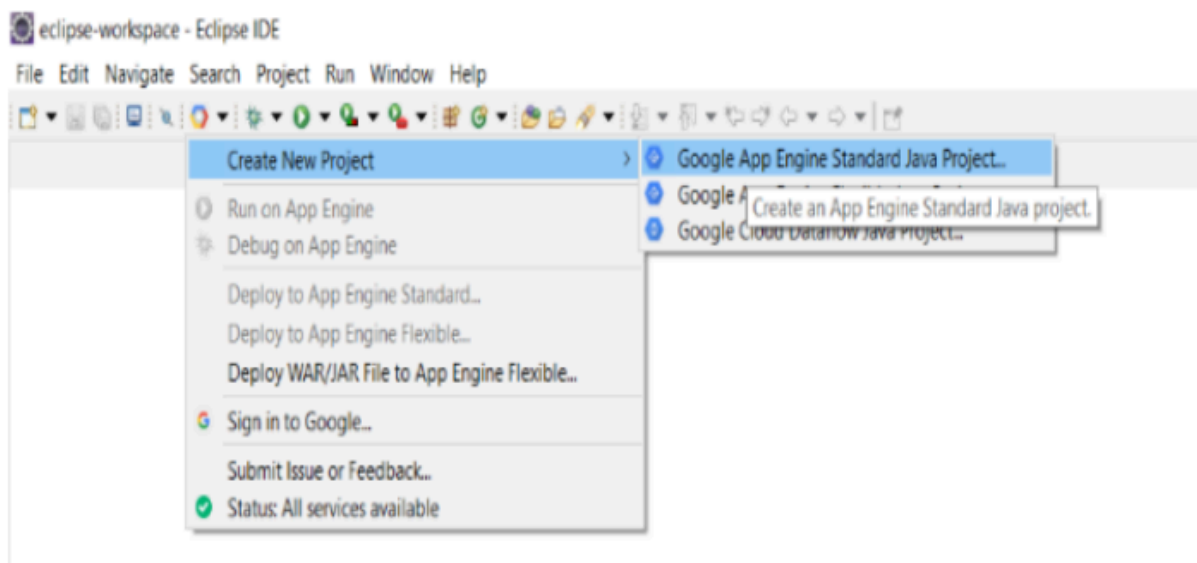
**Step 9:** - Below Preferences window will appear, search for google



**Step 10:** - Click for App Engine Java Components and click on Apply and Close



**Step 11:** - Now create a “Google App Engine Standard Java Project”



**Step 12:** - Below screen will appear New App Engine Standard Project. Provide the Project Name & Java Package as mentioned below:

Project Name: My SandboxProject

Java Package: com.gonevertical.server.sandbox

Click on Next



## App Engine Standard Project



Create a new Eclipse project for App Engine standard environment development.

Project name:

☒ Use default location

Location:

[Browse...](#)

Java version:

Java package:

App Engine service:

☐ Create as Maven project

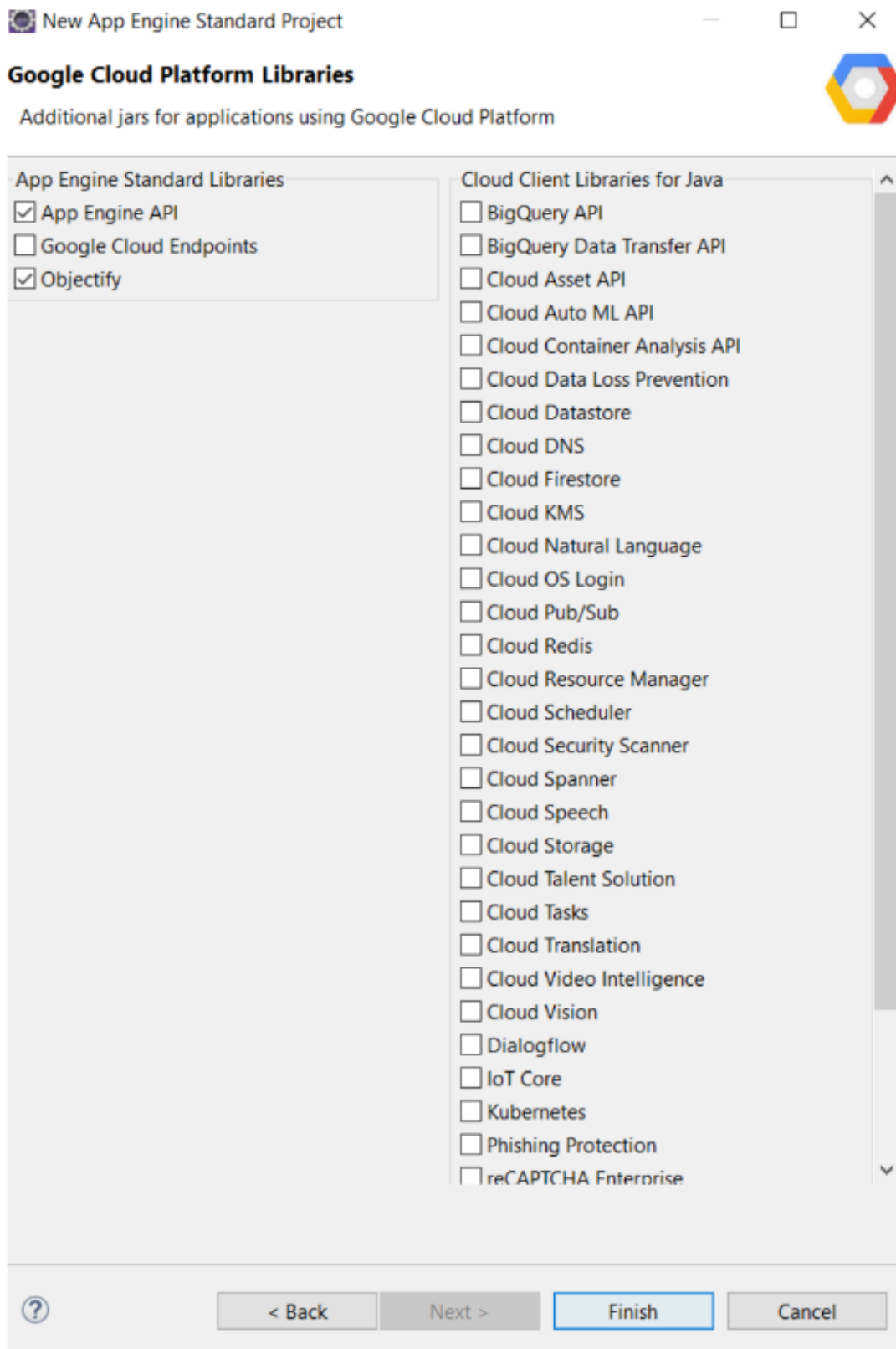
Maven project coordinates

Group ID:

Artifact ID:

Version:

**Step 13:** - Below screen will appear. From App Engine Standard Libraries  
Select 1.App Engine API 2.Objectify  
Click on Finish



The screenshot shows a window titled "New App Engine Standard Project" with standard window controls (minimize, maximize, close) in the top right. Below the title bar, the text "Google Cloud Platform Libraries" is displayed in bold, followed by the subtitle "Additional jars for applications using Google Cloud Platform". The Google Cloud logo is in the top right corner. The main area is divided into two columns of checkboxes. The left column, titled "App Engine Standard Libraries", contains three items: "App Engine API" (checked), "Google Cloud Endpoints" (unchecked), and "Objectify" (checked). The right column, titled "Cloud Client Libraries for Java", contains a scrollable list of 24 items, all of which are unchecked. At the bottom of the window, there is a row of four buttons: a help button (question mark icon), "< Back", "Next >", and "Finish" (which is highlighted with a blue border). A "Cancel" button is also present to the right of the "Finish" button.

New App Engine Standard Project

**Google Cloud Platform Libraries**

Additional jars for applications using Google Cloud Platform

App Engine Standard Libraries

- ☒ App Engine API
- ☐ Google Cloud Endpoints
- ☒ Objectify

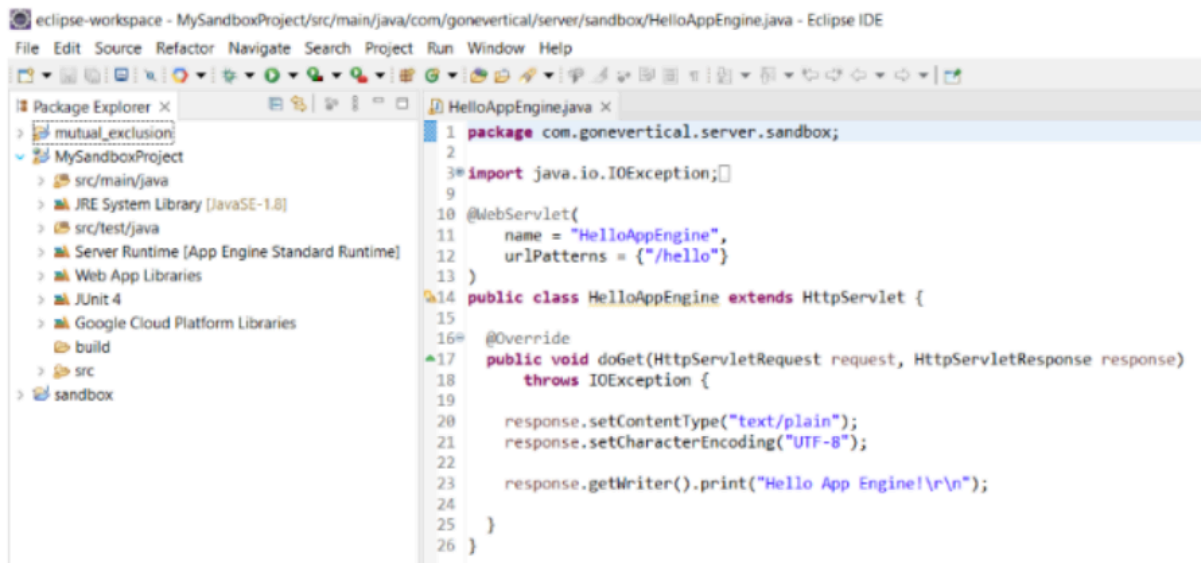
Cloud Client Libraries for Java

- ☐ BigQuery API
- ☐ BigQuery Data Transfer API
- ☐ Cloud Asset API
- ☐ Cloud Auto ML API
- ☐ Cloud Container Analysis API
- ☐ Cloud Data Loss Prevention
- ☐ Cloud Datastore
- ☐ Cloud DNS
- ☐ Cloud Firestore
- ☐ Cloud KMS
- ☐ Cloud Natural Language
- ☐ Cloud OS Login
- ☐ Cloud Pub/Sub
- ☐ Cloud Redis
- ☐ Cloud Resource Manager
- ☐ Cloud Scheduler
- ☐ Cloud Security Scanner
- ☐ Cloud Spanner
- ☐ Cloud Speech
- ☐ Cloud Storage
- ☐ Cloud Talent Solution
- ☐ Cloud Tasks
- ☐ Cloud Translation
- ☐ Cloud Video Intelligence
- ☐ Cloud Vision
- ☐ Dialogflow
- ☐ IoT Core
- ☐ Kubernetes
- ☐ Phishing Protection
- ☐ reCAPTCHA Enterprise

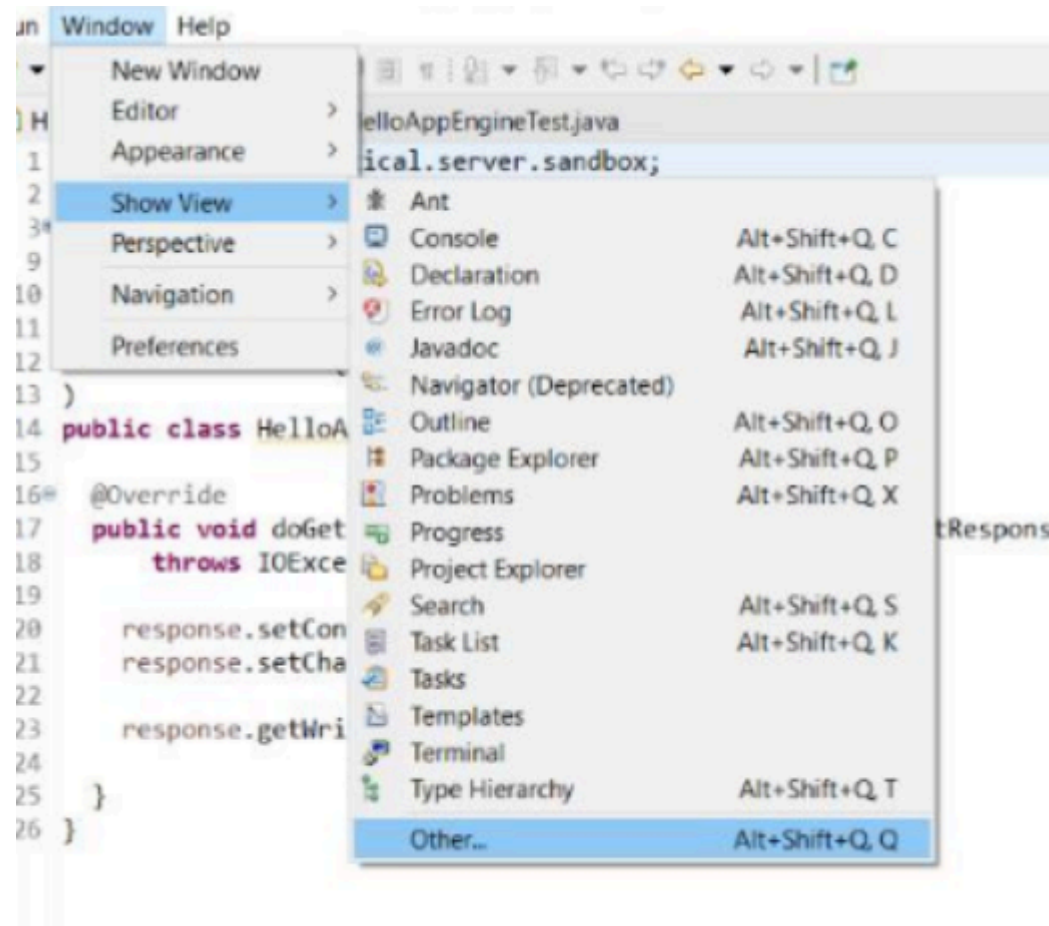
? < Back Next > Finish Cancel



**Step 14: -** Below Screen will Appear “HelloAppEngine.java”



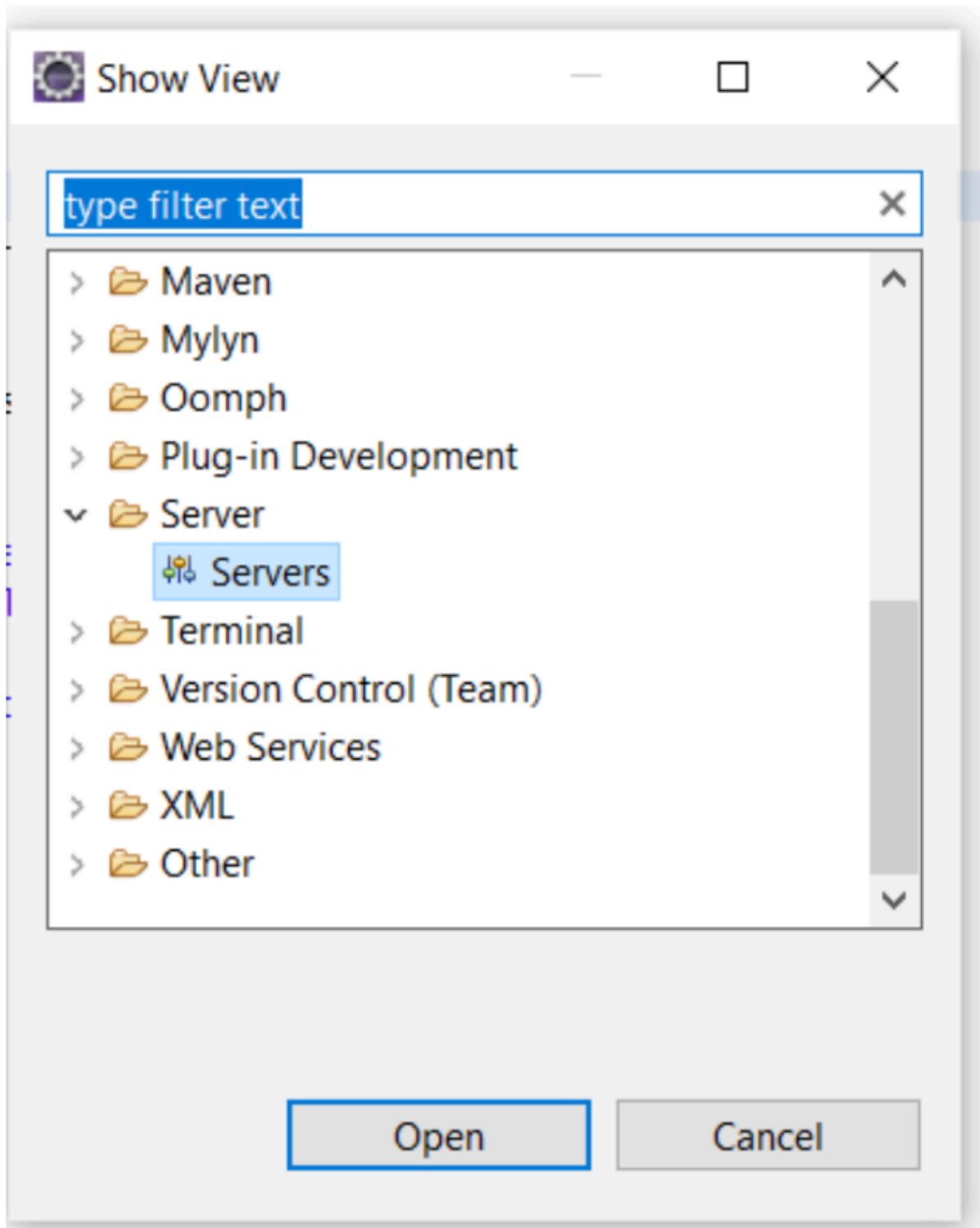
**Step 15: -** Go to Window->Show View->Other



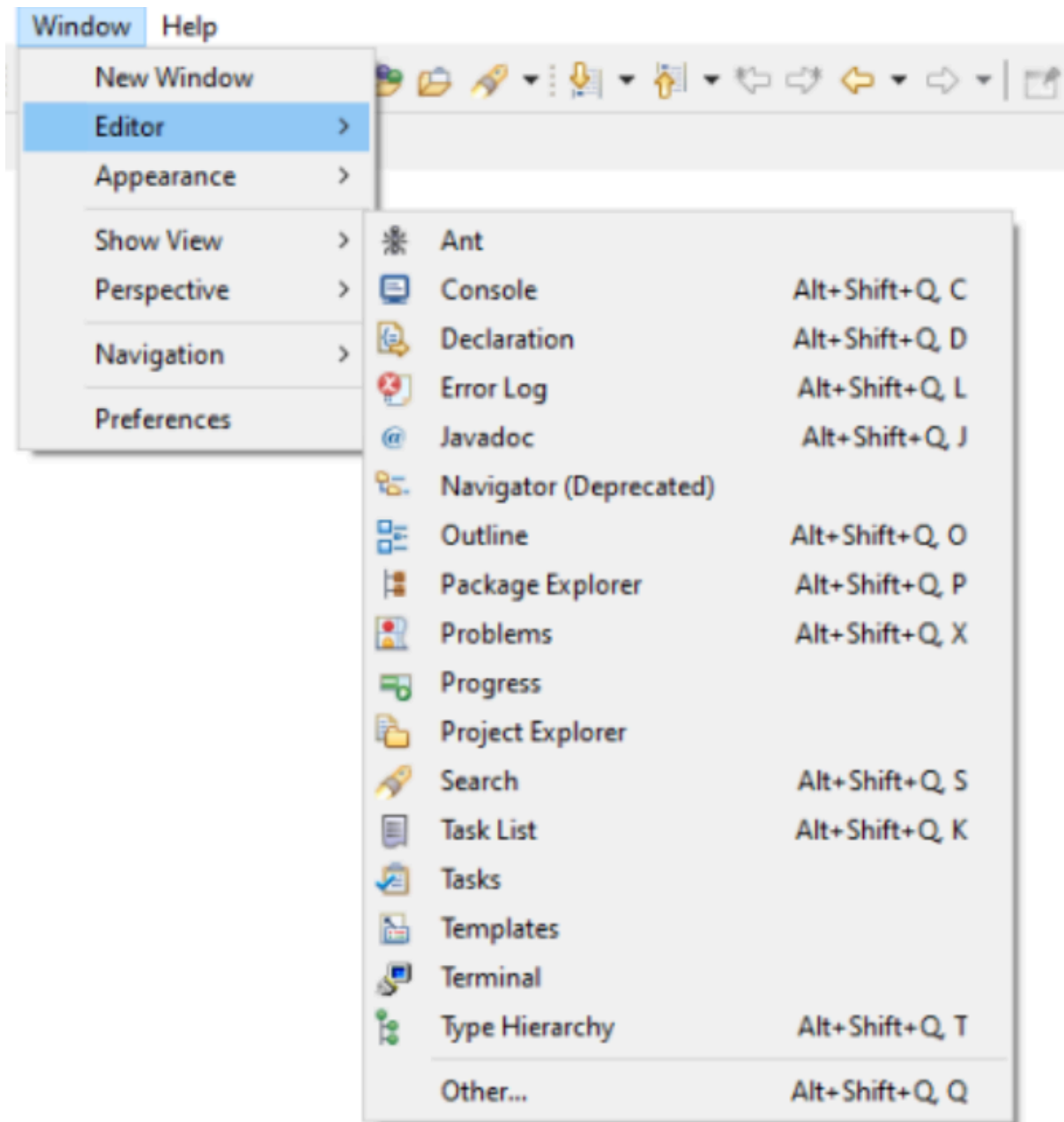
**Step 16:** - After clicking on other below Screen of Show View will appear

1. Click on Server->Servers

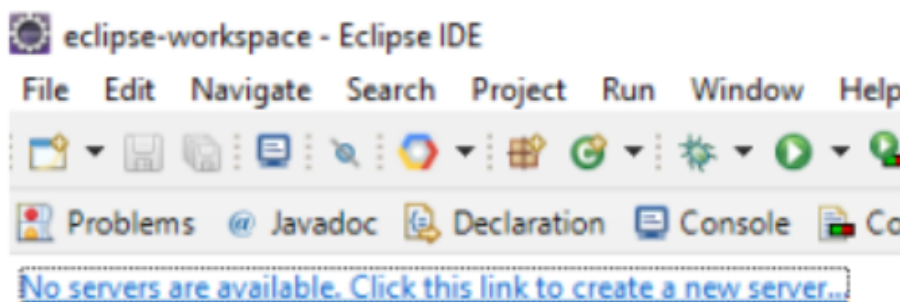
2. Click on Open



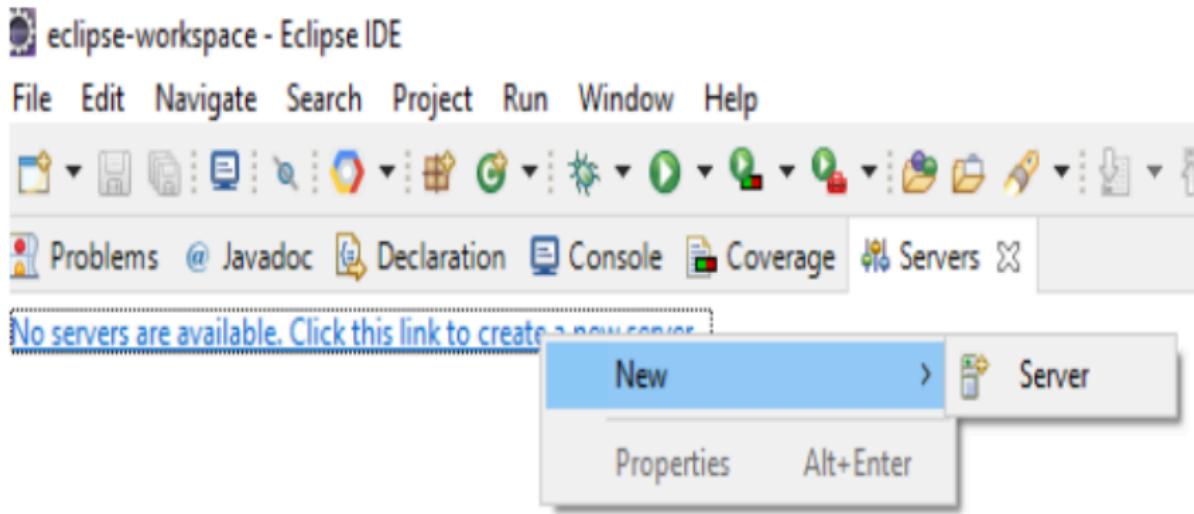
**Step 17:** - Click on Window->Editor->Console



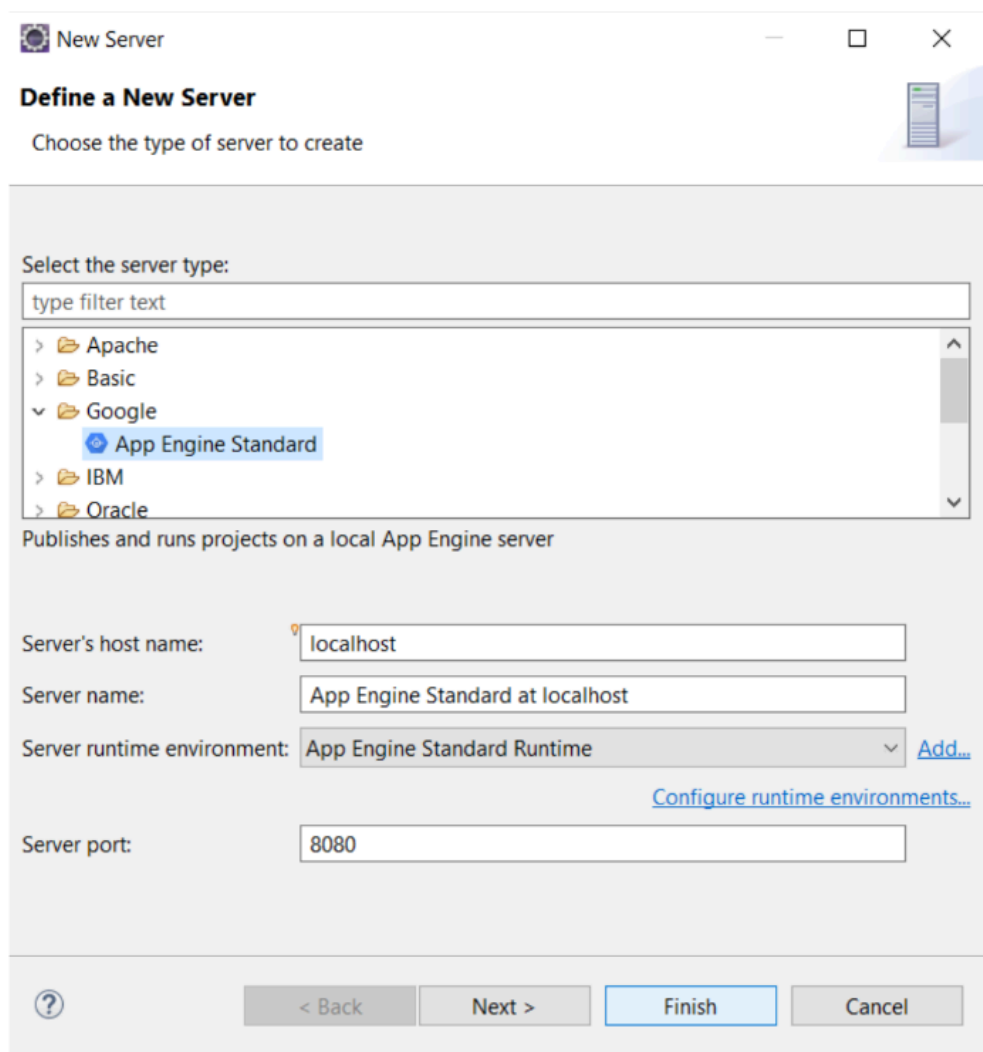
**Step 18:** - Once the Console screen appear ->Click on Servers



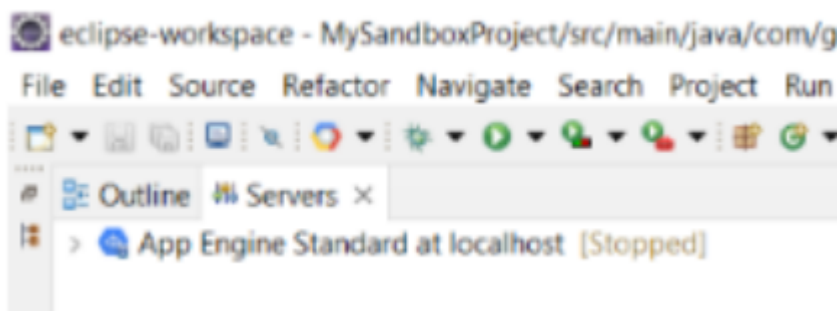
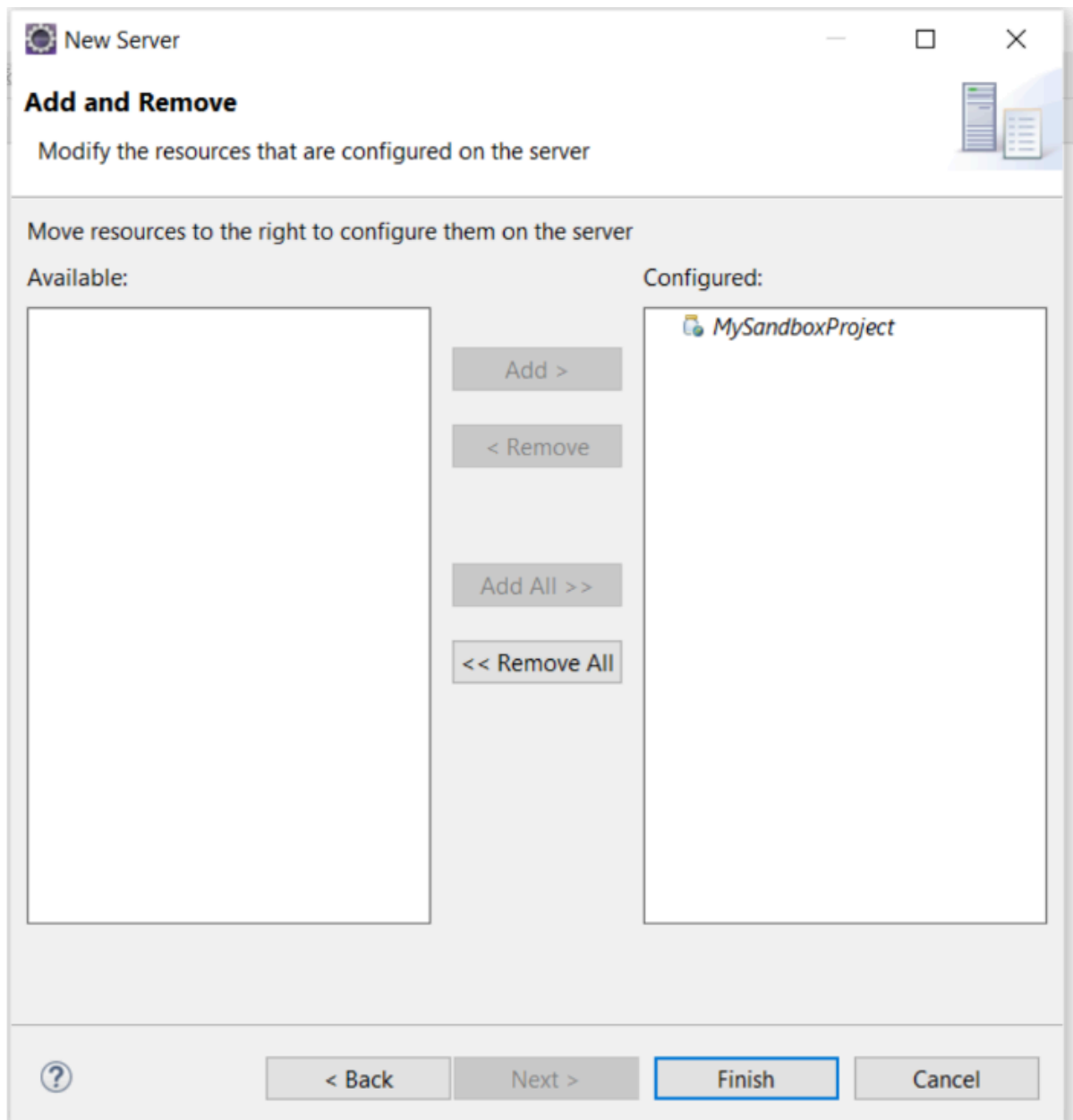
**Step 19:** - Right click on server ->New->Server



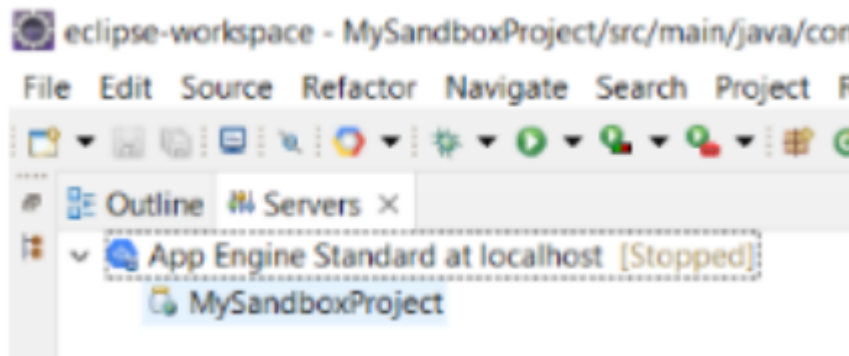
**Step 20:** - To define a new server will below screen appear 1. Select App Engine Standard 2. Click on Next 3. Click on Finish



**Step 21:** - Select from Available Project: MySandboxProject and then click on Add Button. Click on Finish Button



**Step 22:** - Click On App Engine Standard At localhost ->MySandboxProject



**Step 23:** - Execute the following code, Right click on App Engine Standard At localhost->Click on Debug

**Code:** -

```
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 {
    @Override
    public void doGet(HttpServletRequest request, HttpServletResponse response)
        throws IOException {
        response.setContentType("text/plain");
        response.setCharacterEncoding("UTF-8");
        response.getWriter().print("Hello from JITESH To App Engine!\r\n");
    }
}
```

**Output: -**



# Hello App Engine!

**Available Servlets:**

[The servlet](#)

