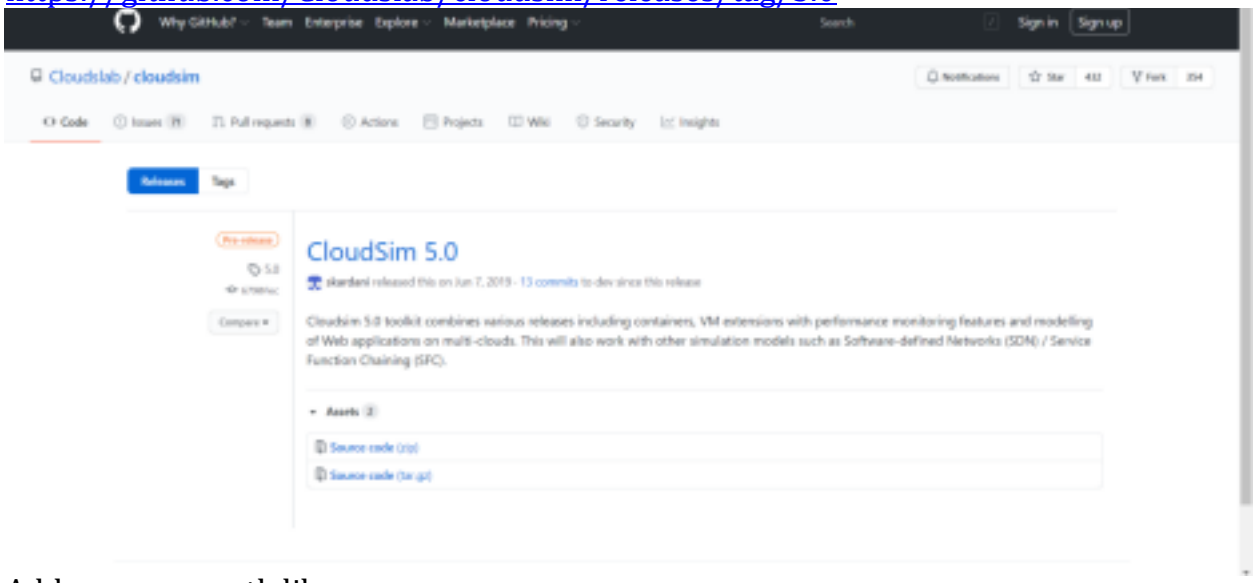
Ex.No.11	Simulation of cloud scenario using cloudsim

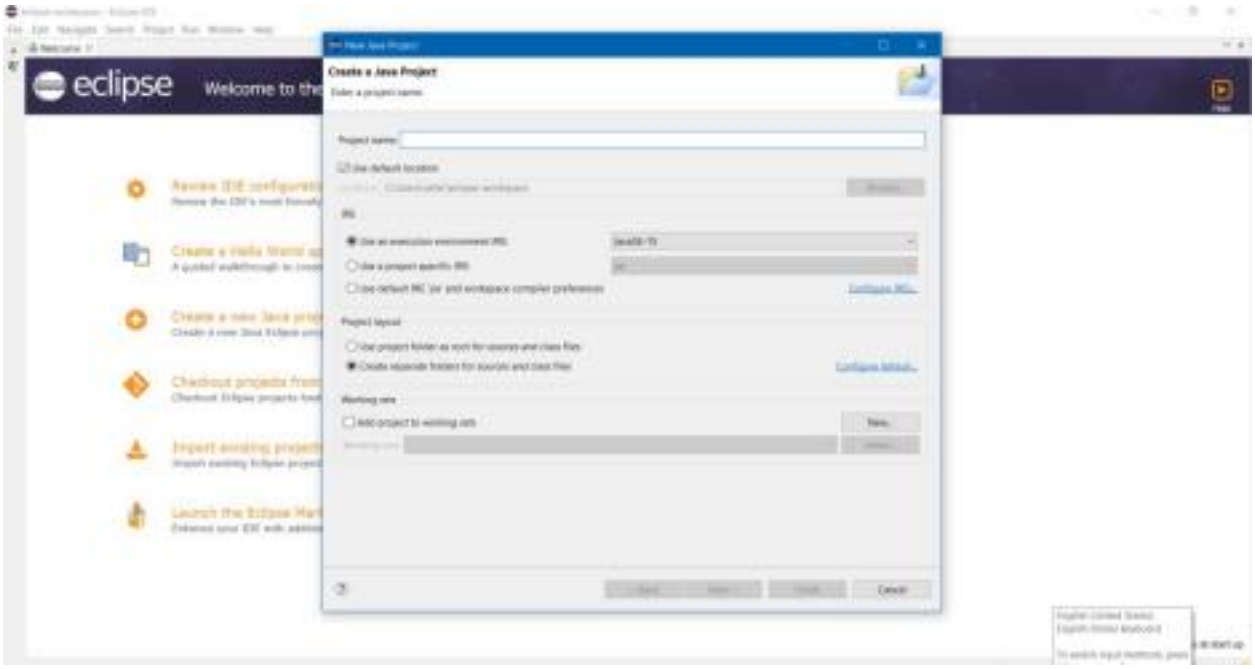
AIM:
To implement the simulation of cloud scenario using cloudsim.

PROCEDURE:
Download Cloudsim 5.0 from
https://github.com/Cloudslab/cloudsim/releases/tag/5.0

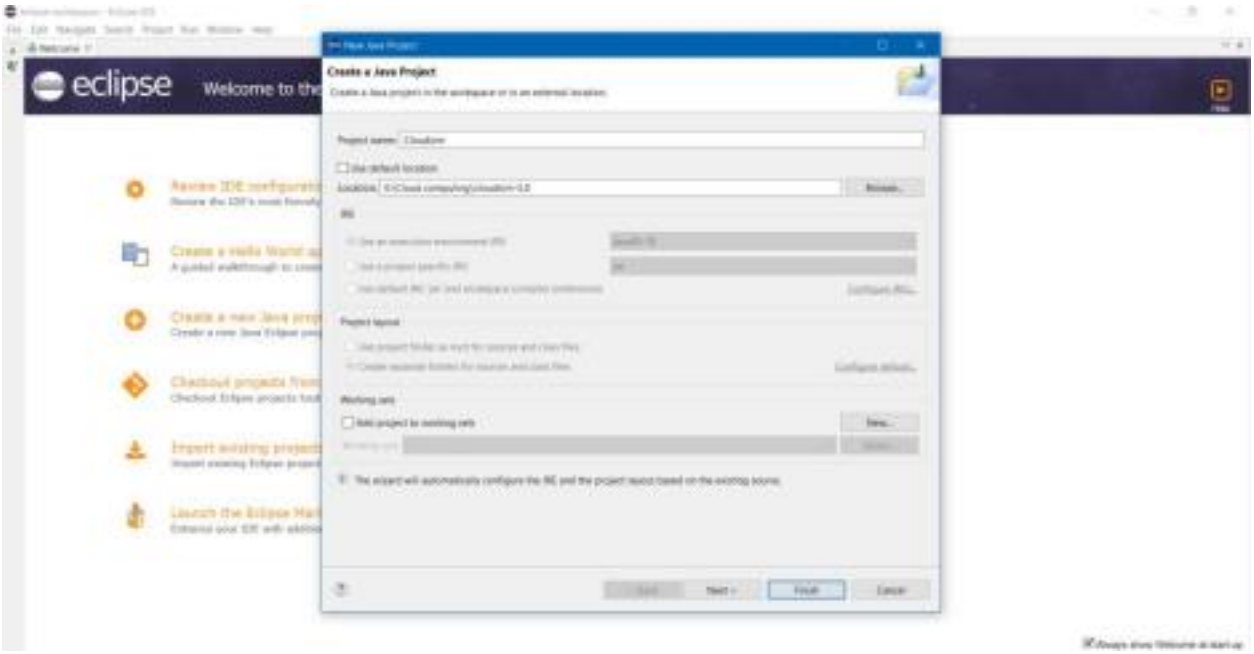


Add common math library
https://commons.apache.org/proper/commons-math/download_math.cgi

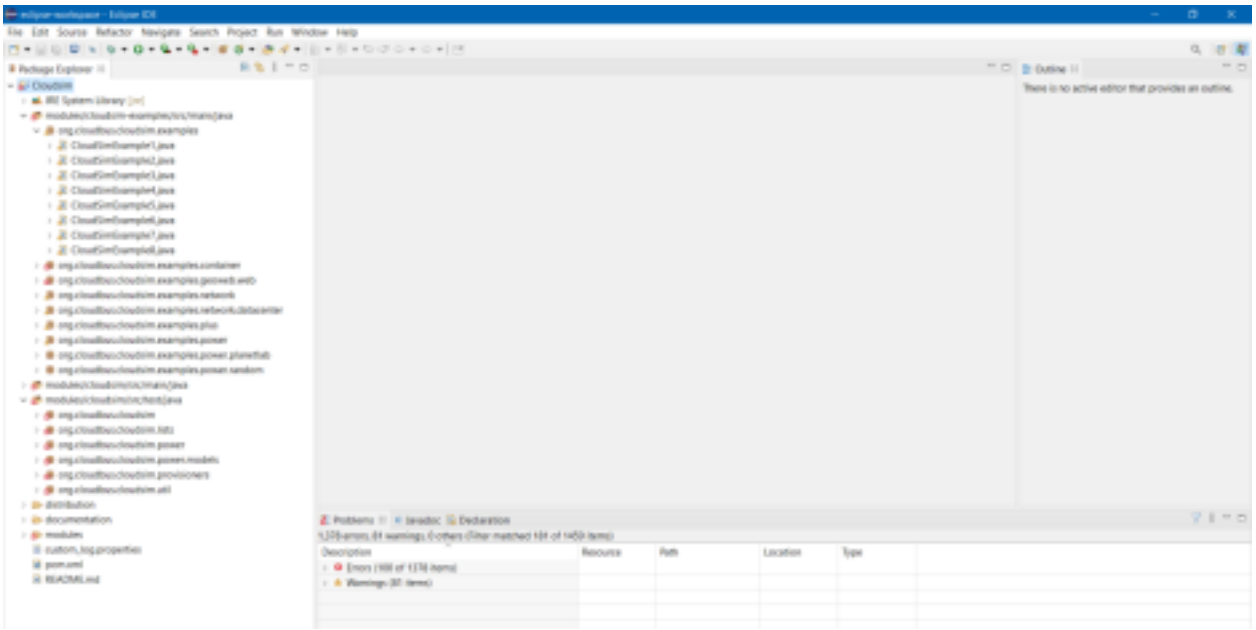
Open Eclipse. Select New > Project > Java Project



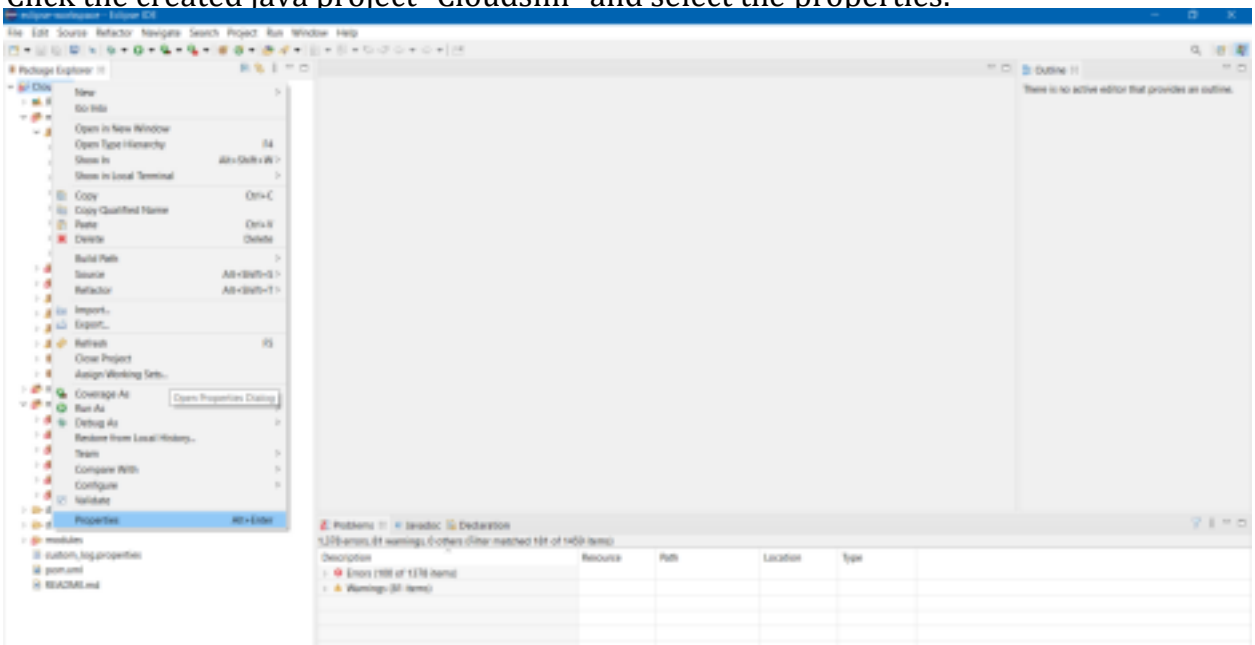
The project is named as Cloudsim and the location of the downloaded folder is specified.



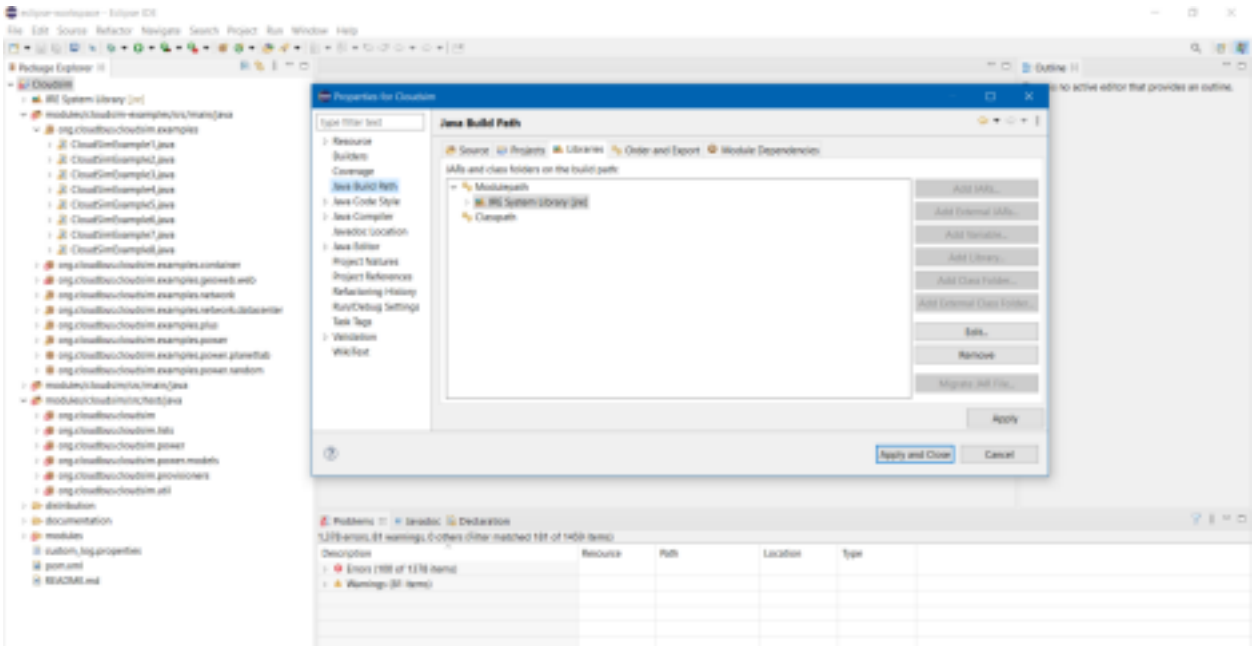
Once you click finish, the cloudsim project becomes viewable in your package explorer as shown below



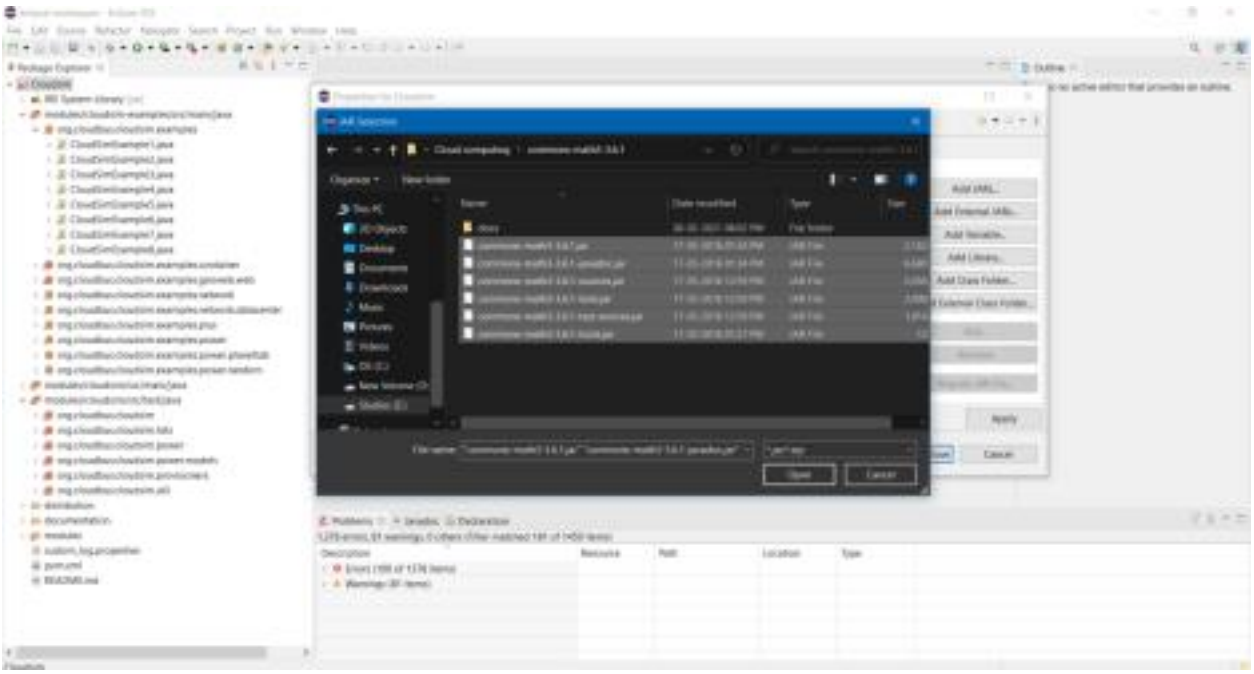
Click the created java project “Cloudsim” and select the properties.



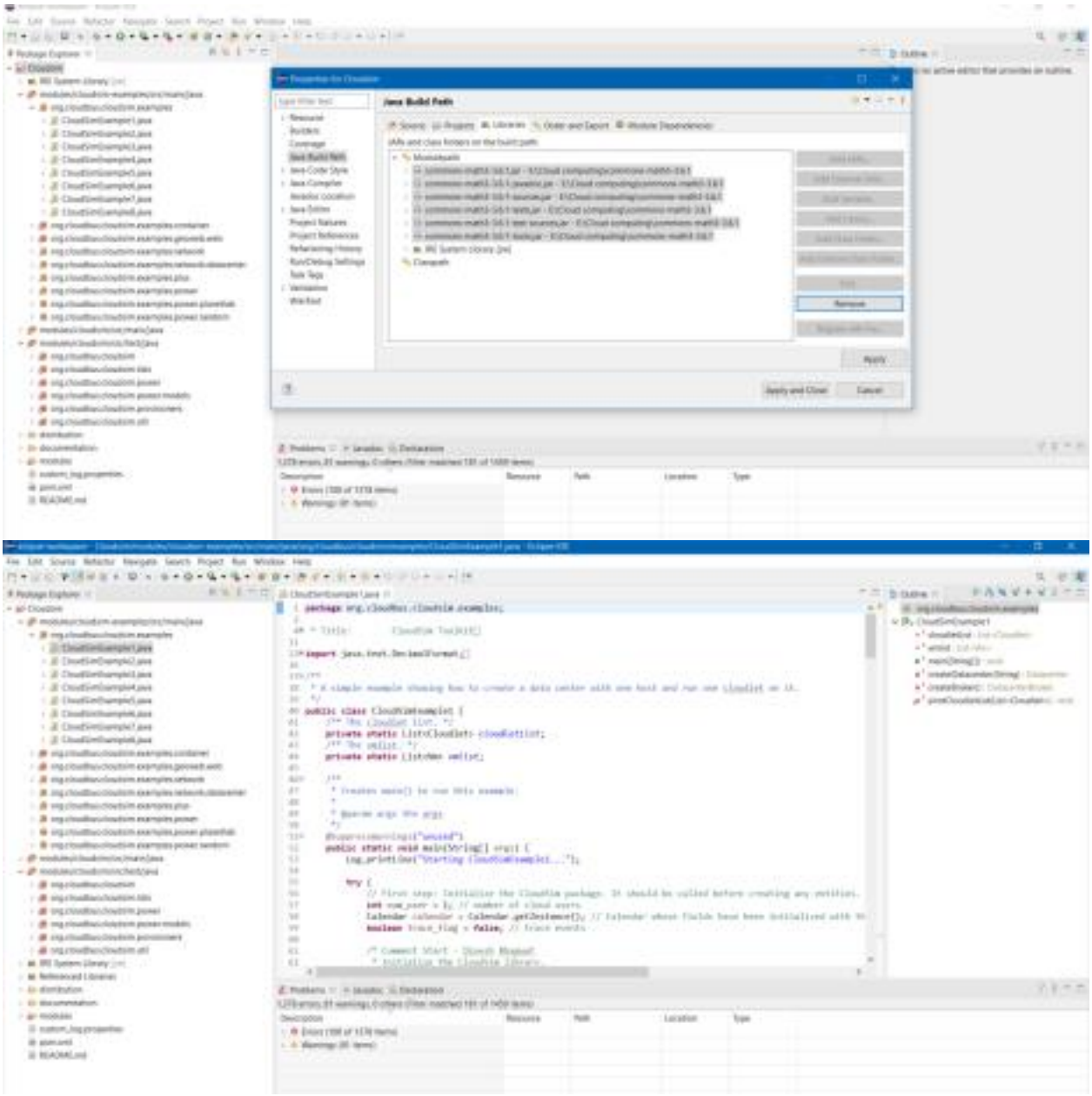
Click Java Build Path and select Modulepath and add external JARs



Add External JARs and select all the JAR files present in the common math folder, you downloaded and unzipped earlier



Click Apply and Apply and Close



Hence, the installation is completed.

To simulate the cloud services, the Cloudsim Example codes are executed.

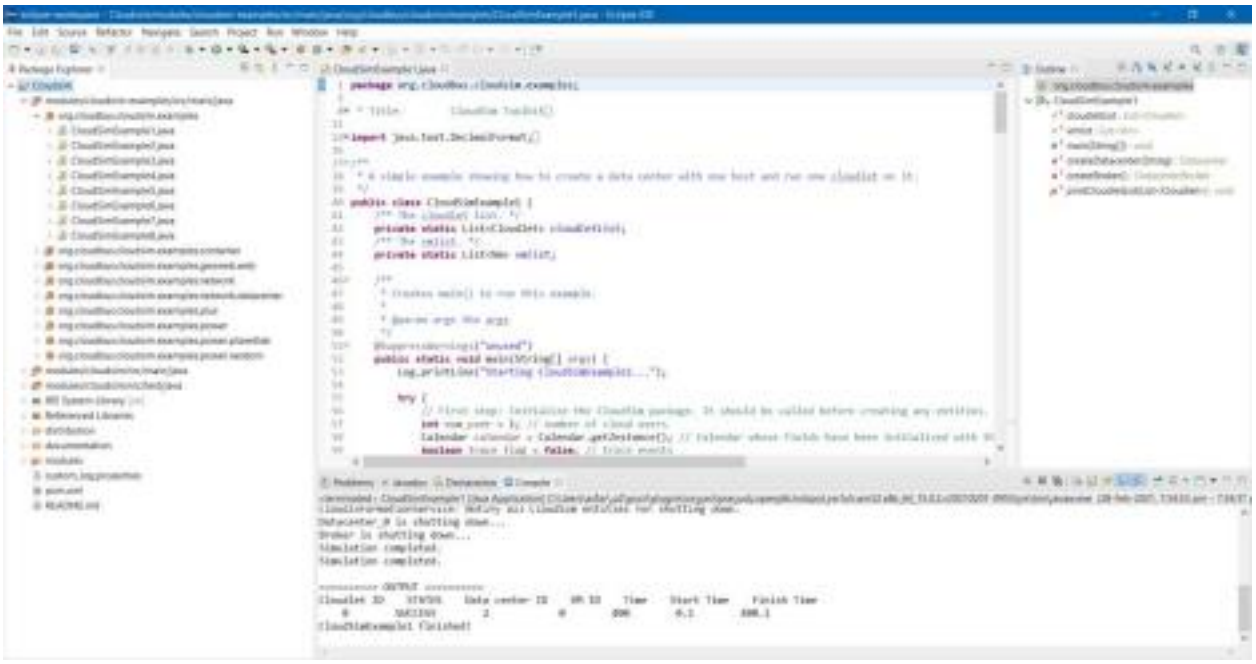
Cloudsim example 1:

An example showing how to create a datacenter with one host and run one cloudlet on it.

- Set the Number of users for the current simulation
- The createDatacenter() method initializes the various datacenter characteristics along with the host list.
- The createBroker() method initializes the entity object from DatacenterBroker

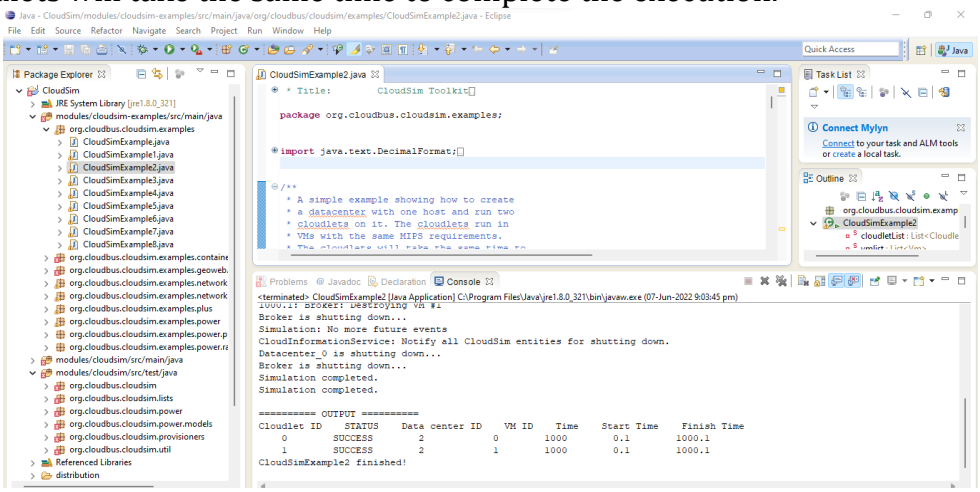
class

- Create Virtual Machines and also create cloudlets.
- Invoke method to start and stop stimulation.
- Finally, print the final status of the Simulation.



Cloudsim example 2:

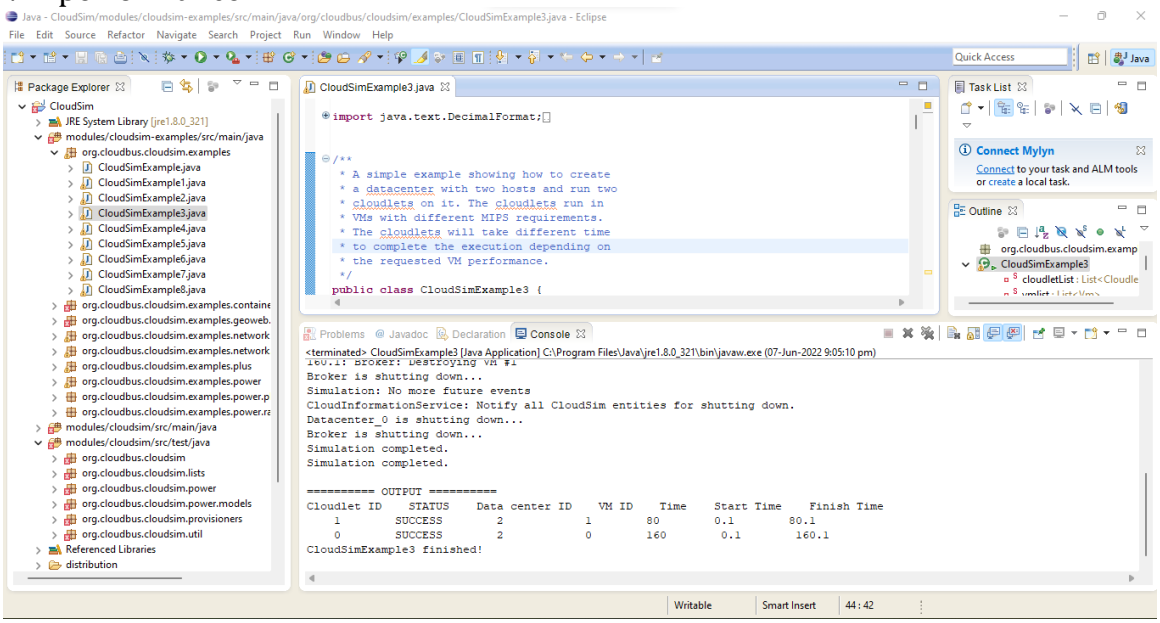
A simple example showing how to create a datacenter with one host and run two cloudlets on it. The cloudlets run in VMs with the same MIPS requirements. The cloudlets will take the same time to complete the execution.



Cloudsim example 3:

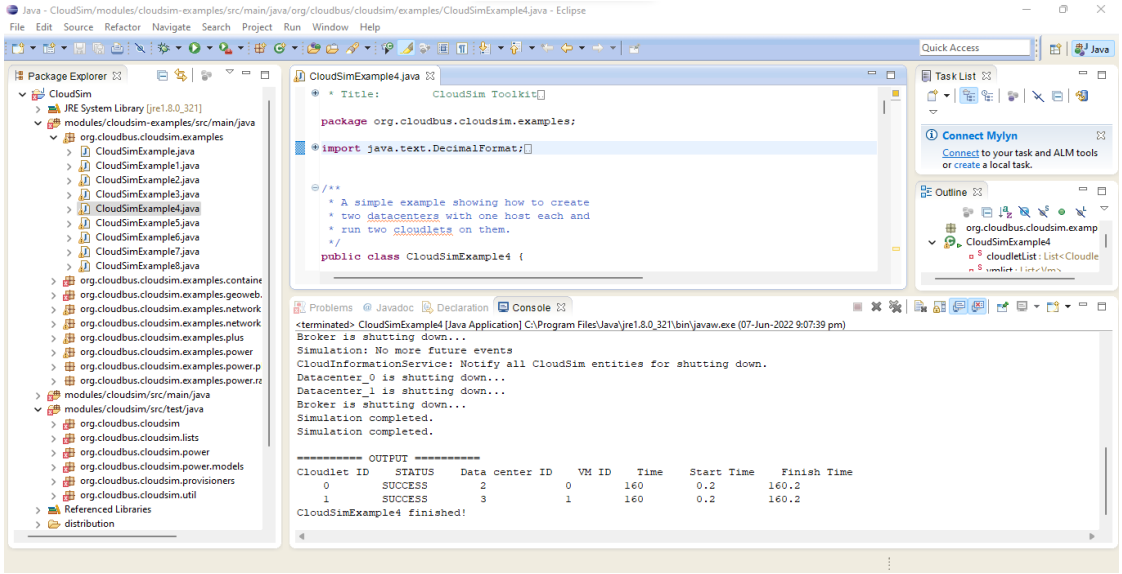
A simple example showing how to create a datacenter with two hosts and run

two cloudlets on it. The cloudlets run in VMs with different MIPS requirements. The cloudlets will take different time to complete the execution depending on the requested VM performance.



Cloudsim example 4;

A simple example showing how to create two datacentres with one host each and run two cloudlets on them.



RESULT:

Hence the simulation of cloud scenario using cloudsim is verified.