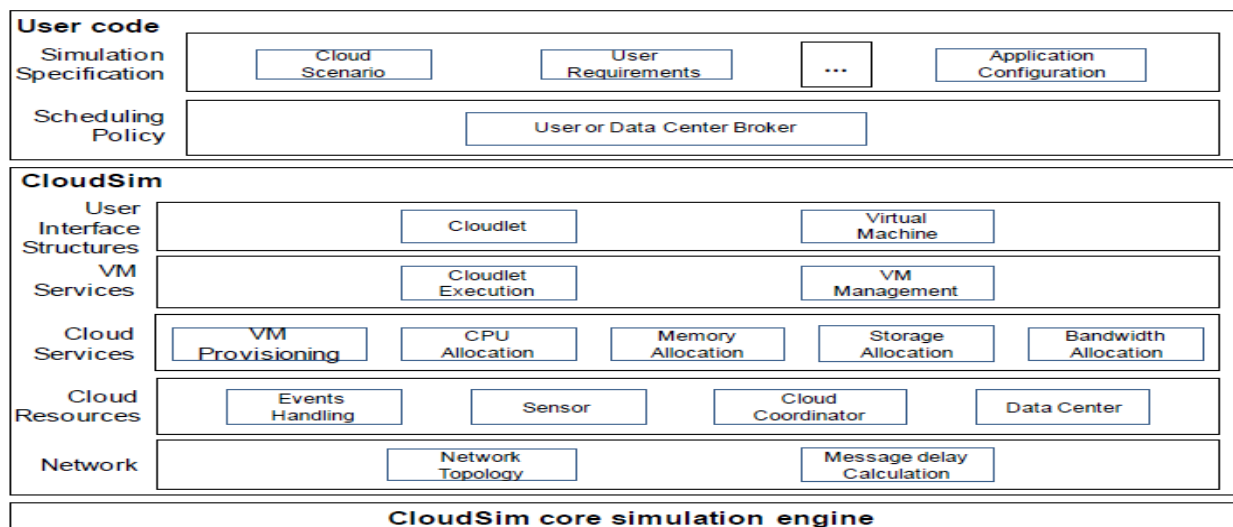# PRACTICAL –4

Aim: - CloudSim Overview and Installation.

INTRODUCTION TO CLOUD SIM:

▸ The Cloud Sim simulation layer provides support for modeling and simulation of virtualized Cloud-based data center environments including dedicated management interfaces for virtual machines (VMs), memory, storage, and bandwidth.
▸ By extending the basic functionalities already exposed with CloudSim, researchers will be able to perform tests based on specific scenarios and configurations,
▸ thereby allowing the development of best practices in all the critical aspects related to Cloud Computing.

CLOUD SIM ARCHITECTURE:

CLOUD SIM SOFTWARE REQUIRNMENT:

1. JDK 1. JAVA DEVELPOMENT KIT 1.7 IS REQUIRE
2. EXTERNAL JAR FILE [flanagan.jar]

   Some of the algorithms in the power package require Michael Thomas Flanagan's Java Scientific Library. In order to compile CloudSim, it is necessary to download this library. The library can be downloaded from:
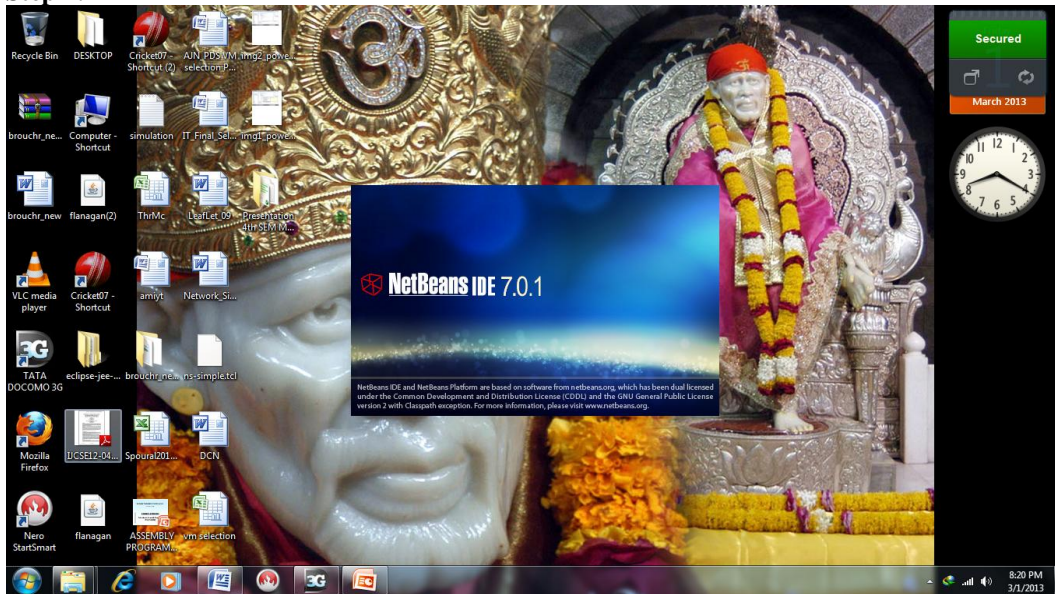   http://www.ee.ucl.ac.uk/~mflanaga/java/

CLOUD SIM INTERNAL JAR FILES:
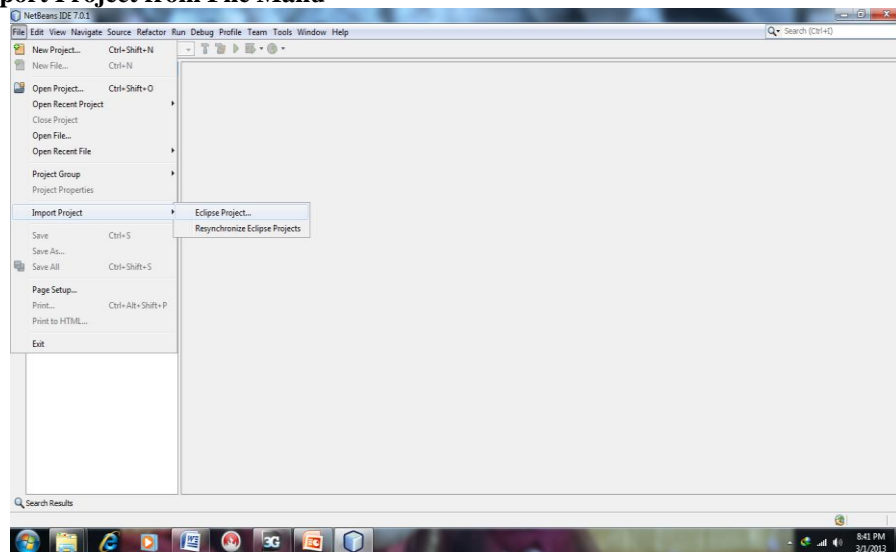
▸ cloudsim-3.0.2.JAR
 -- contains the CloudSim class files
▸ cloudsim-3.0.2-sources.JAR
 -- contains the CloudSim source code files
▸ cloudsim-examples-3.0.2.JAR
 -- contains the CloudSim examples class files
▸ cloudsim-examples-3.0.2-sources.JAR
 -- contains the CloudSim examples source code files

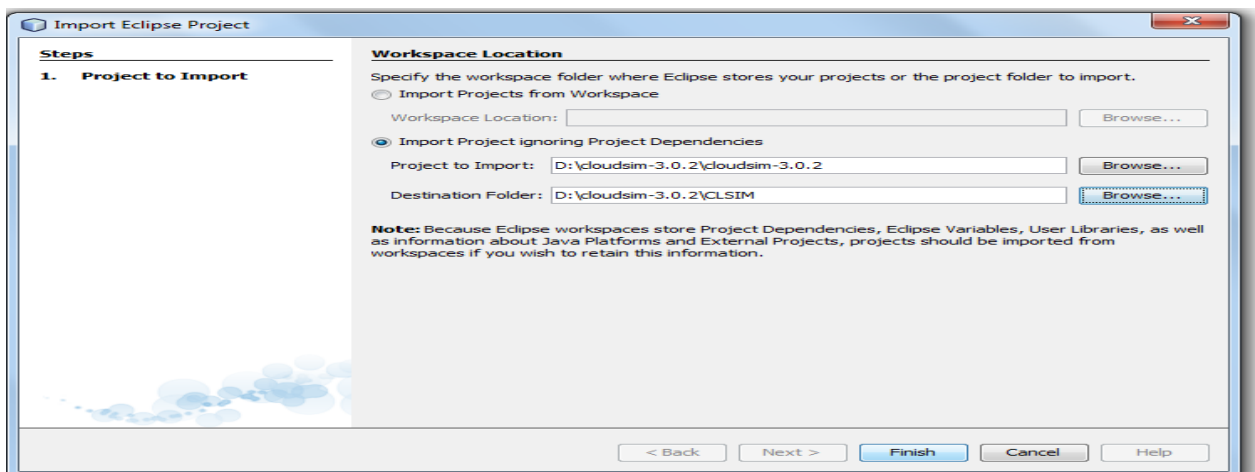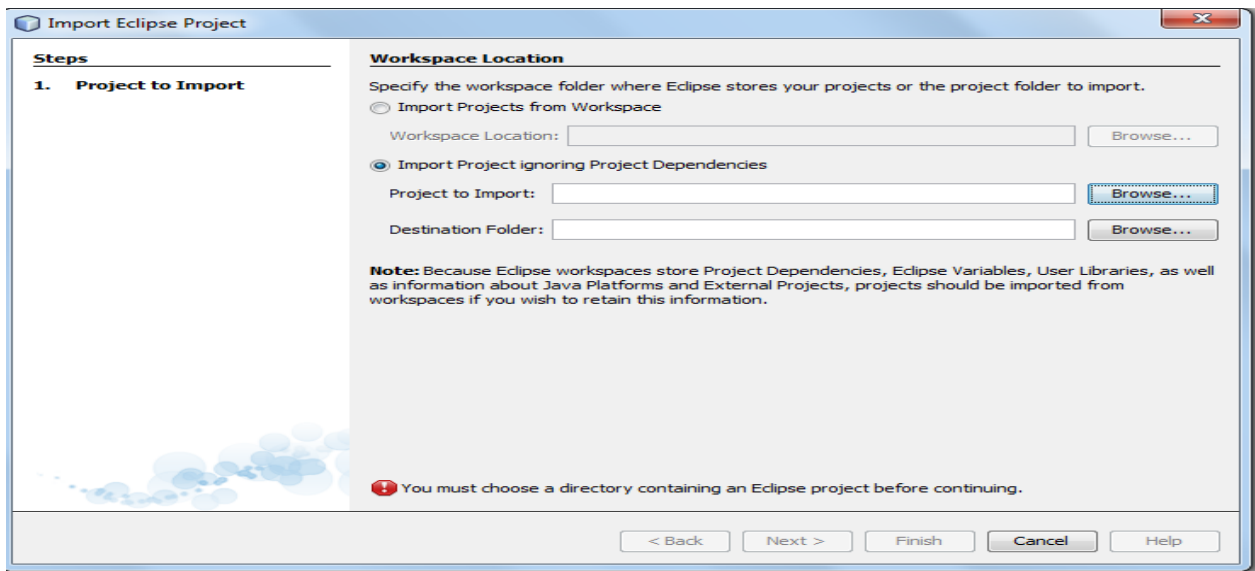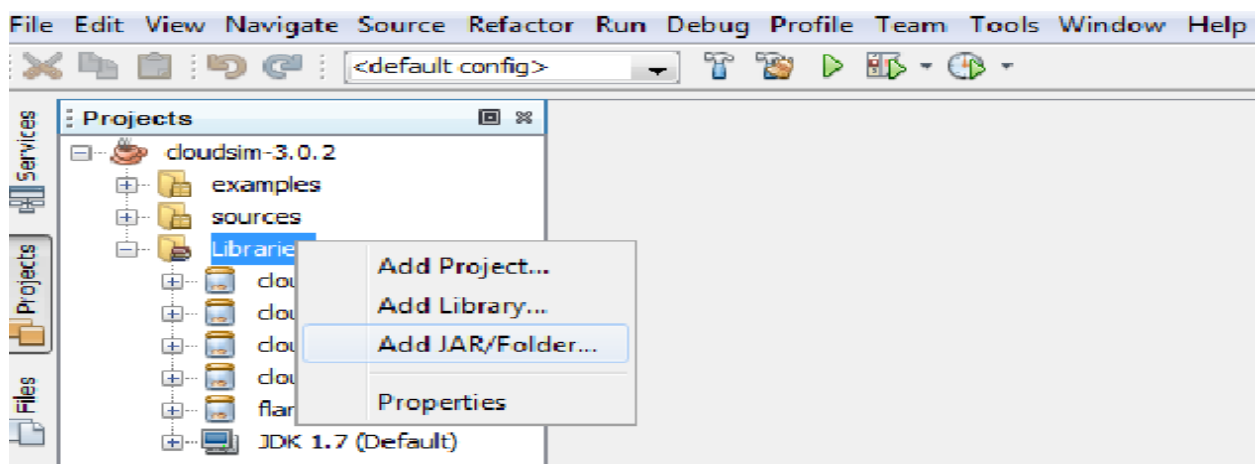**CLOUD SIM STEP BY STEP INSTALLATION USING NETBEANS:**

Step 1:

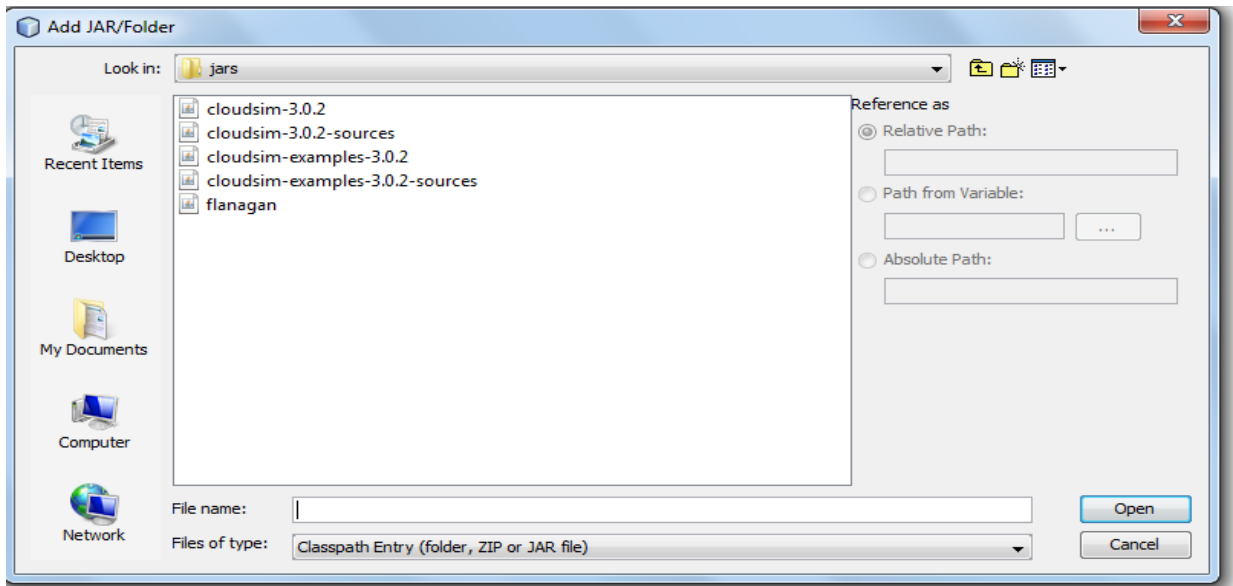**Step 2: Import Project from File Manu**

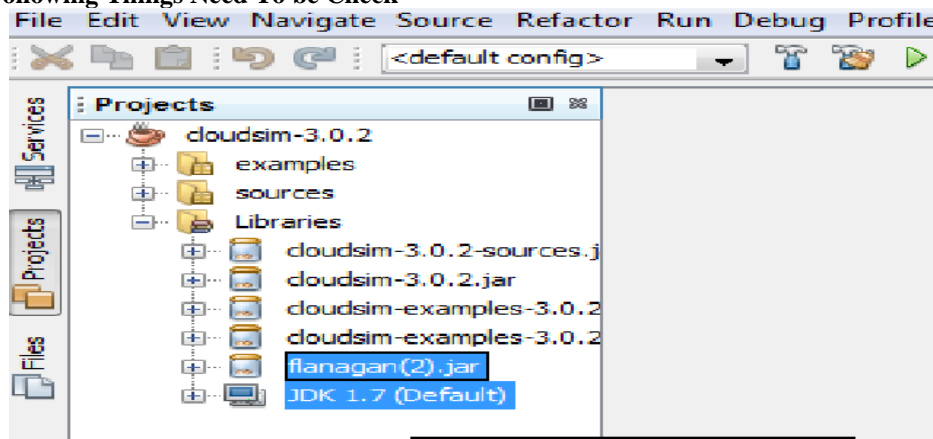**Step 3: Select Cloud Sim 3.0.2 Directory**

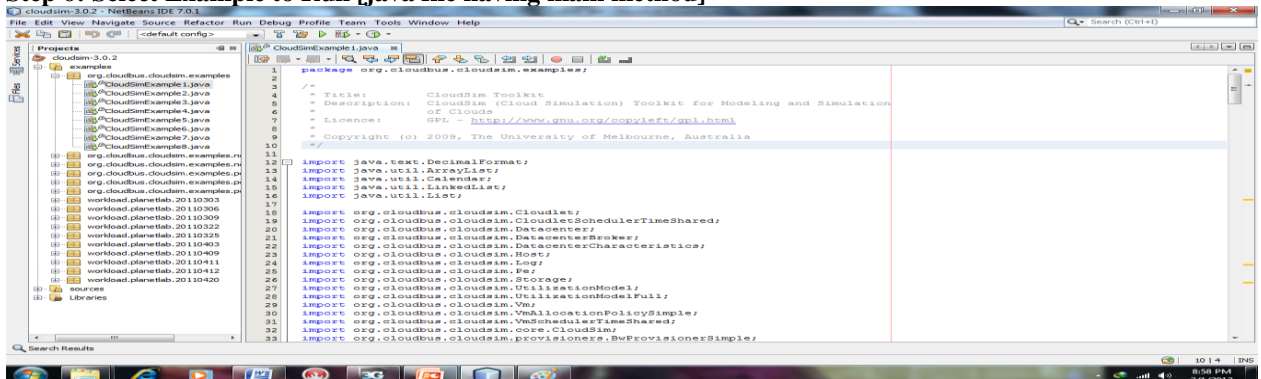**Step 4: ADD JAR FILES INTO PROJECT LIBRARY**

Step 5: Following Things Need To be Check

Step 6: Select Example to Run [java file having main method]

Step 7: Right Click and Select Run File

OUTPUT:


```
========== OUTPUT ==========
Cloudlet ID    STATUS    Data center ID    VM ID    Time    Start Time    Finish Time
    0          SUCCESS         2              0       400        0.1          400.1
*****Datacenter: Datacenter_0*****
User id        Debt
3              35.6
*************************************
CloudSimExample1 finished!
BUILD SUCCESSFUL (total time: 0 seconds)
```