Exp No: 7

CLOUD SIMULATION
MODEL CLOUD ENVIRONMENT USING CLOUD SIM

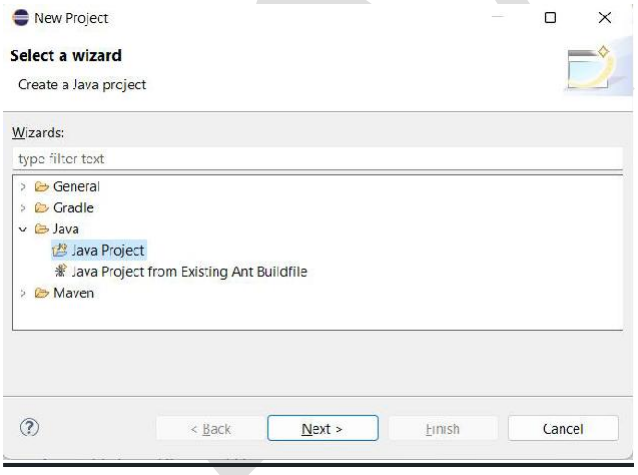
AIM:

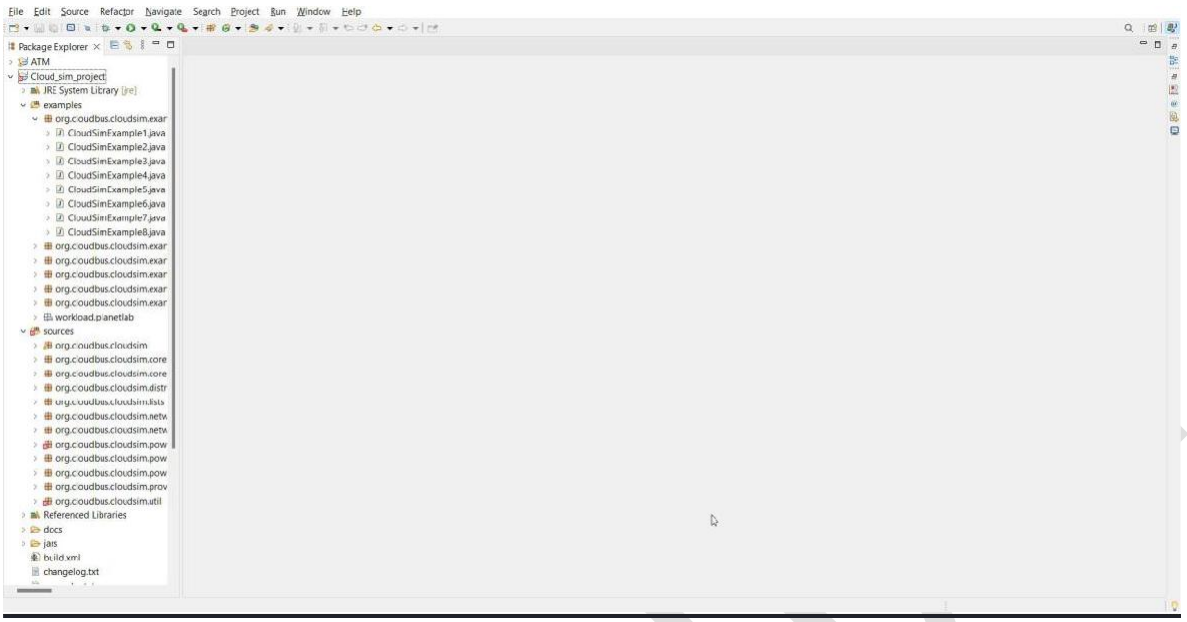
To model the cloud environment using cloud sim tools.

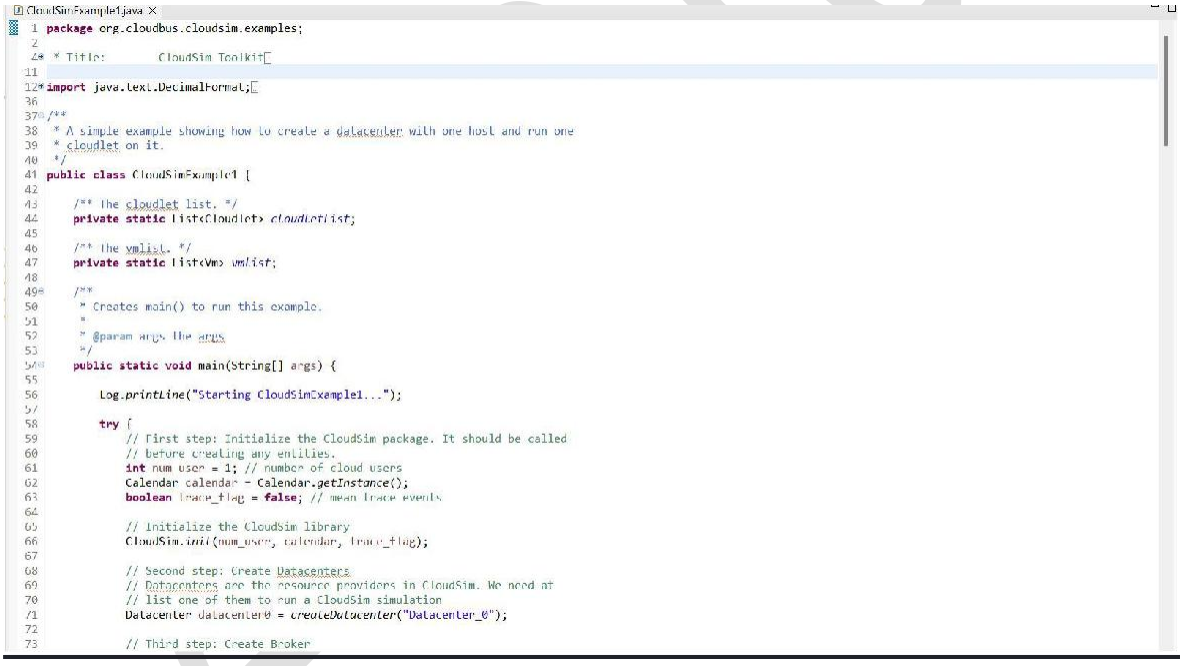
PROCEDURE:

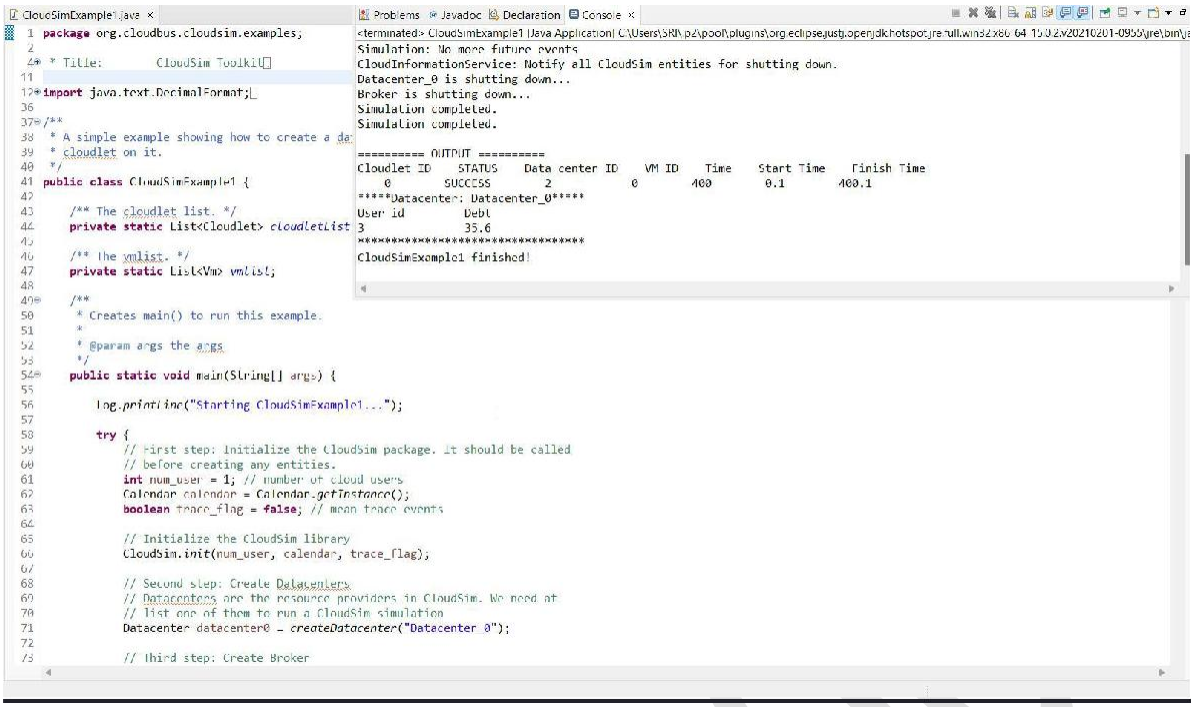
1. Now within the Eclipse window navigate the menu: File -> New -> Project, to open the new project wizard.
2. Select the 'Java Project' from the window popup and click Next.
3. Unselect the *'Use default location'* option and then click on *'Browse'* to open the path where you have unzipped the Cloudsim project and finally click Next to set project settings.
4. Now select the example program from folder examples from the unzipped folder.
5. Run the sample program

OUTPUT:




File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
ATM
Cloud_sim_project
JRE System Library [jre]
examples
org.cloudbus.cloudsim.exar
CloudSimExample1.java
CloudSimExample2.java
CloudSimExample3.java
CloudSimExample4.java
CloudSimExample5.java
CloudSimExample6.java
CloudSimExample7.java
CloudSimExample8.java
org.cloudbus.cloudsim.exar
org.cloudbus.cloudsim.exar
org.cloudbus.cloudsim.exar
org.cloudbus.cloudsim.exar
workload.planetlab
sources
org.cloudbus.cloudsim
org.cloudbus.cloudsim.core
org.cloudbus.cloudsim.core
org.cloudbus.cloudsim.distr
org.cloudbus.cloudsim.netw
org.cloudbus.cloudsim.netw
org.cloudbus.cloudsim.pow
org.cloudbus.cloudsim.pow
org.cloudbus.cloudsim.pow
org.cloudbus.cloudsim.prov
org.cloudbus.cloudsim.util
Referenced Libraries
docs
jars
build.xml
changelog.txt


CloudSimExample1.java
1 package org.cloudbus.cloudsim.examples;
2
2* * Title: CloudSim Toolkit
11
12* import java.text.DecimalFormat;
36
37* /**
38 * A simple example showing how to create a datacenter with one host and run one
39 * cloudlet on it.
40 */
41 public class CloudSimExample1 {
42
43 /** The cloudlet list. */
44 private static List<Cloudlet> cloudletList;
45
46 /** The vmlist. */
47 private static List<Vm> vmlist;
48
49* /**
50 * Creates main() to run this example.
51 *
52 * @param args the args
53 */
54* public static void main(String[] args) {
55
56 Log.printLine("Starting CloudSimExample1...");
57
58 try {
59 // First step: Initialize the CloudSim package. It should be called
60 // before creating any entities.
61 int num_user = 1; // number of cloud users
62 Calendar calendar = Calendar.getInstance();
63 boolean trace_flag = false; // mean trace events
64
65 // Initialize the CloudSim library
66 CloudSim.init(num_user, calendar, trace_flag);
67
68 // Second step: Create Datacenters
69 // Datacenters are the resource providers in CloudSim. We need at
70 // list one of them to run a CloudSim simulation
71 Datacenter datacenter0 = createDatacenter("Datacenter_0");
72
73 // Third step: Create Broker



```
package org.cloudbus.cloudsim.examples;

/**
 * Title:        CloudSim Toolkit
import java.text.DecimalFormat;

/**
 * A simple example showing how to create a da
 * cloudlet on it.
 */
public class CloudSimExample1 {

    /** The cloudlet list. */
    private static List<Cloudlet> cloudletList

    /** The vmlist. */
    private static List<Vm> vmlist;

    /**
     * Creates main() to run this example.
     *
     * @param args the args
     */
    public static void main(String[] args) {

        Log.printLine("Starting CloudSimExample1...");

        try {
            // First step: Initialize the CloudSim package. It should be called
            // before creating any entities.
            int num_user = 1; // number of cloud users
            Calendar calendar = Calendar.getInstance();
            boolean trace_flag = false; // mean trace events

            // Initialize the CloudSim library
            CloudSim.init(num_user, calendar, trace_flag);

            // Second step: Create Datacenters
            // Datacenters are the resource providers in CloudSim. We need at
            // list one of them to run a CloudSim simulation
            Datacenter datacenter0 = createDatacenter("Datacenter_0");

            // Third step: Create Broker
```

```
Simulation: No more future events
CloudInformationService: Notify all CloudSim entities for shutting down.
Datacenter_0 is shutting down...
Broker is shutting down...
Simulation completed.
Simulation completed.

========== 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!
```

RESULT:

Thus, the cloud environment using cloud sim tools has been modelled.