

Exp No: 7

Date :

## **CLOUD SIMULATION**

### **MODEL CLOUD ENVIRONMENT USING CLOUD**

### **SIM**

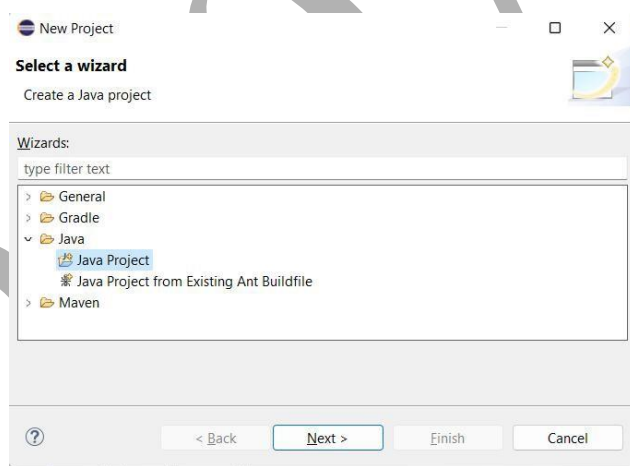
#### **AIM:**

To model the cloud environment using cloud sim tools.

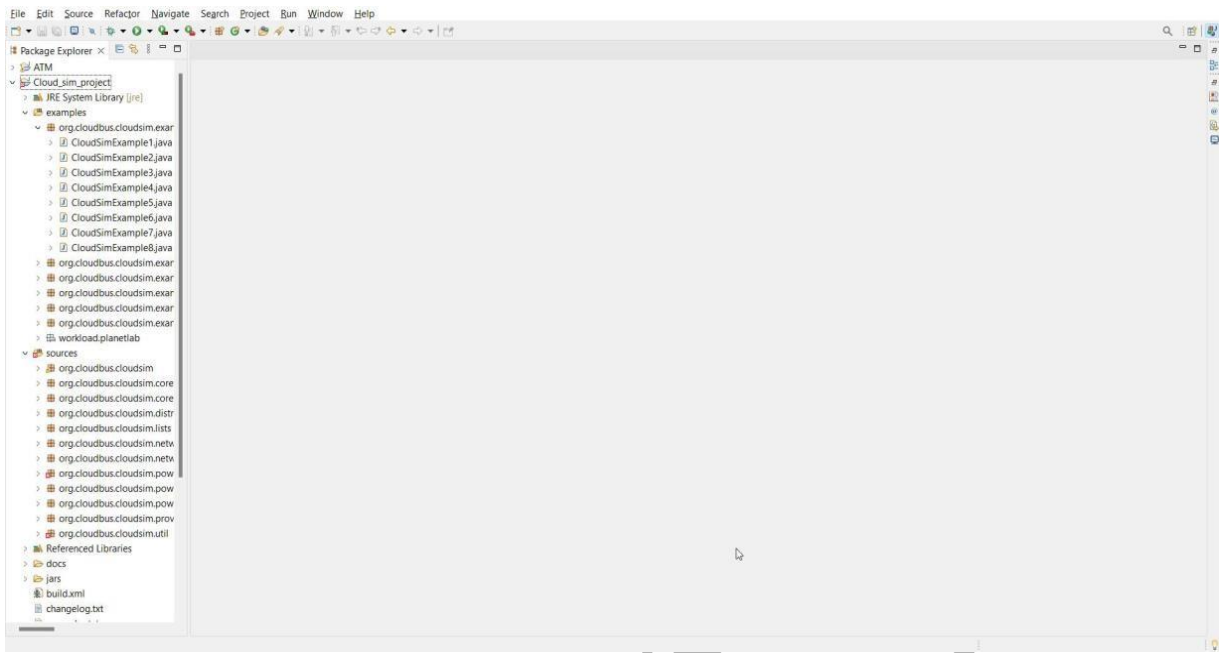
#### **PROCEDURE:**

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:**



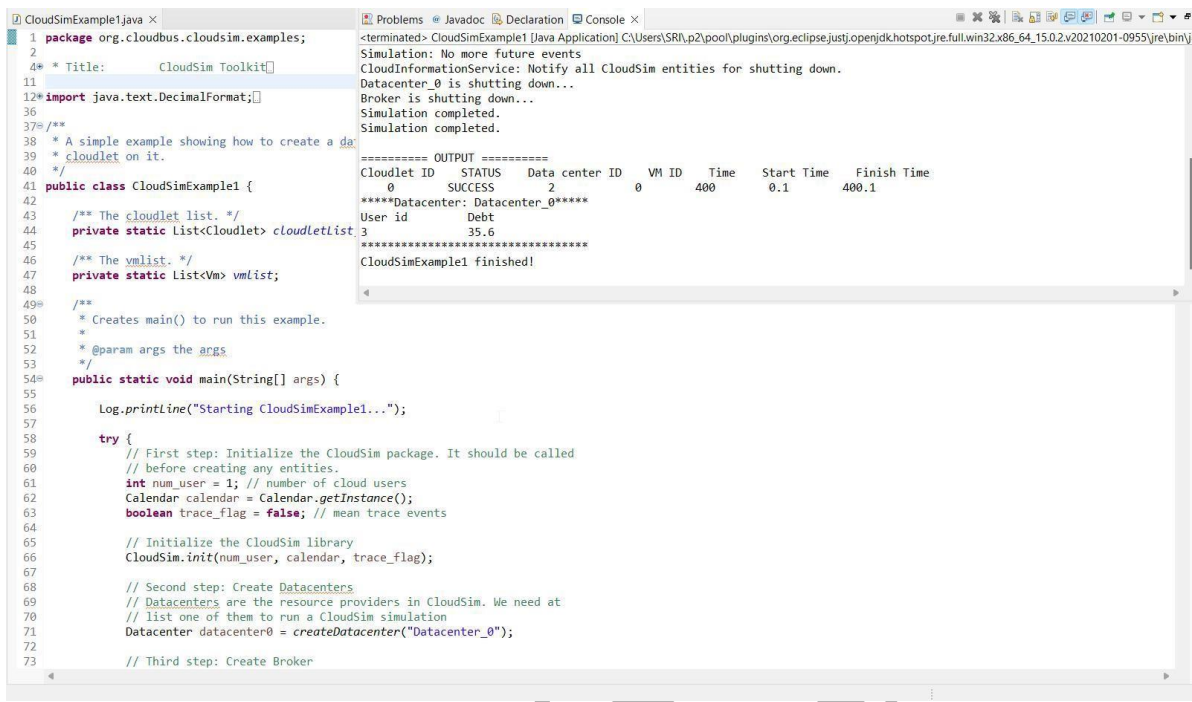
NAME: RAJA SEKAR M



```

1 package org.cloudbus.cloudsim.examples;
2
3
4 * Title:      CloudSim Toolkit[]
5
6
7
8
9
10
11
12 *import java.text.DecimalFormat;[]
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73

```



The screenshot shows an Eclipse IDE with two panes. The left pane displays the source code of a Java class named `CloudSimExample1`. The code includes package declarations, imports, and a `main` method that initializes a CloudSim environment. The right pane shows the console output, which includes simulation status messages and a table of simulation results.

```
1 package org.cloudbus.cloudsim.examples;
2
3 4* * Title: CloudSim Toolkit
4
5 11
6 12*import java.text.DecimalFormat;
7
8 36
9 37/**
10 38 * A simple example showing how to create a da
11 39 * cloudlet on it.
12 40
13 41 public class CloudSimExample1 {
14
15 42
16 43 /** The cloudlet list. */
17 44 private static List<Cloudlet> cloudletlist;
18
19 45
20 46 /** The vm list. */
21 47 private static List<Vm> vmlist;
22
23 48
24 49 /**
25 50 * Creates main() to run this example.
26 51 *
27 52 * @param args the args
28 53 */
29 54 public static void main(String[] args) {
30
31 55     Log.println("Starting CloudSimExample1...");
32
33 56
34 57     try {
35
36 58         // First step: Initialize the CloudSim package. It should be called
37 59         // before creating any entities.
38 60         int num_user = 1; // number of cloud users
39 61         Calendar calendar = Calendar.getInstance();
40 62         boolean trace_flag = false; // mean trace events
41
42 63
43 64         // Initialize the CloudSim library
44 65         CloudSim.init(num_user, calendar, trace_flag);
45
46 66
47 67         // Second step: Create Datacenters
48 68         // Datacenters are the resource providers in CloudSim. We need at
49 69         // list one of them to run a CloudSim simulation
50 70         Datacenter datacenter0 = createDatacenter("Datacenter_0");
51
52 71
53 72         // Third step: Create Broker
54
55 73
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
```

The console output shows the following messages:

```
<terminated> CloudSimExample1 [Java Application] C:\Users\SRM\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_15.0.2.v20210201-0955\jre\bin\je
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.