

**Exp No: 7**

**Date :**

## **CLOUD SIMULATION**

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

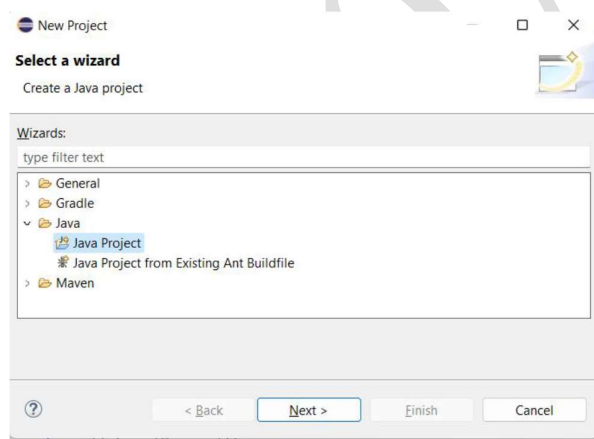
**AIM:**

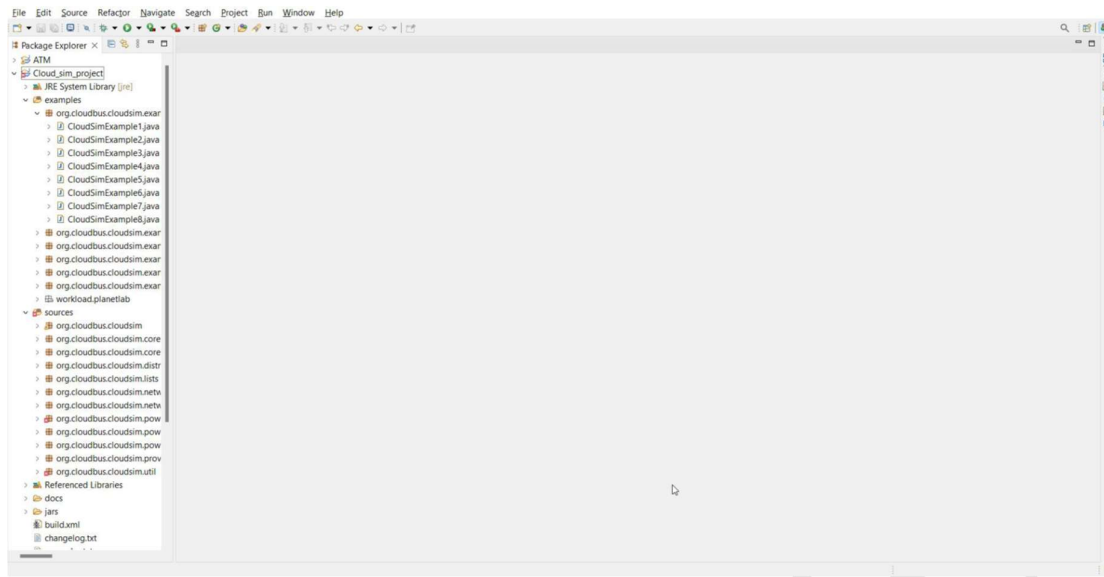
To model the cloud environment using cloud sim tools.

**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:**





```

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

```

```

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

```

```

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