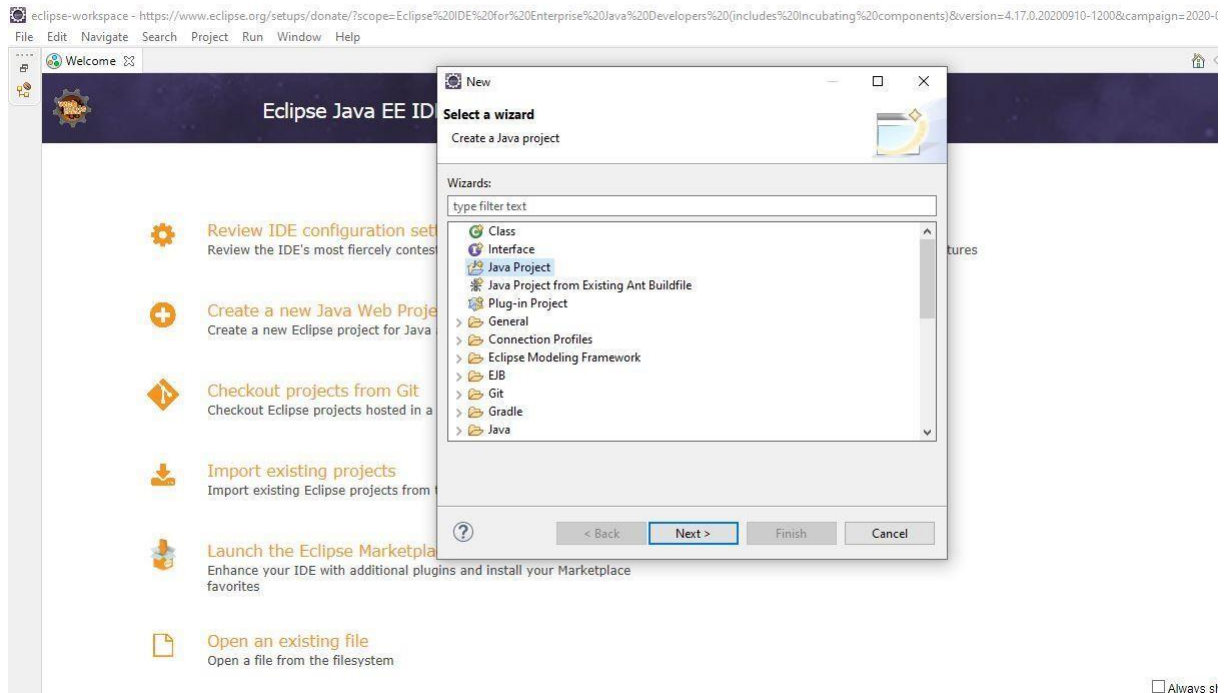


EX.No: 6
Date: 27/10/20

Name: Nandhini A
Reg.No: 312217205054

Cloud Sim Installation

CLOUDSIM AND ECLIPSE INSTALLATION:



cloudsim-3.0.3

neShareView

Copy

Paste

Cut

Copy path

Paste shortcut

Move to

Copy to

Delete

Rename

New folder

New item

Easy access

Properties

Open

Edit

History

Select all

Select none

Invert selection

Clipboard

Organize

New

Open

Select

↑

> This PC > Documents > cloudsim-3.0.3

Name	Date modified	Type	Size
bin	28-10-2020 09:25	File folder	
docs	02-05-2013 19:57	File folder	
examples	02-05-2013 19:57	File folder	
jars	02-05-2013 19:57	File folder	
sources	02-05-2013 19:57	File folder	
.classpath	28-10-2020 09:24	CLASSPATH File	2 KB
.project	28-10-2020 03:06	PROJECT File	1 KB
build.xml	02-05-2013 19:57	XML File	3 KB
changelog.txt	02-05-2013 19:57	Text Document	12 KB
examples.txt	02-05-2013 19:57	Text Document	5 KB
license.txt	02-05-2013 19:57	Text Document	8 KB
pom.xml	02-05-2013 19:57	XML File	4 KB
readme.txt	02-05-2013 19:57	Text Document	3 KB
release_notes.txt	02-05-2013 19:57	Text Document	3 KB

Process

Projects

Personal

Computers

Network

Clouds

Libraries

Tools

Utilities

Games

Applications

Documents

Cloudsim-3.0.3

SAMPLE CLOUD SCENARIO:

```
eclipse-workspace - cloudsim/sample/examples/org/cloudapbus/cloudsim/examples/CloudSimExample1.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help

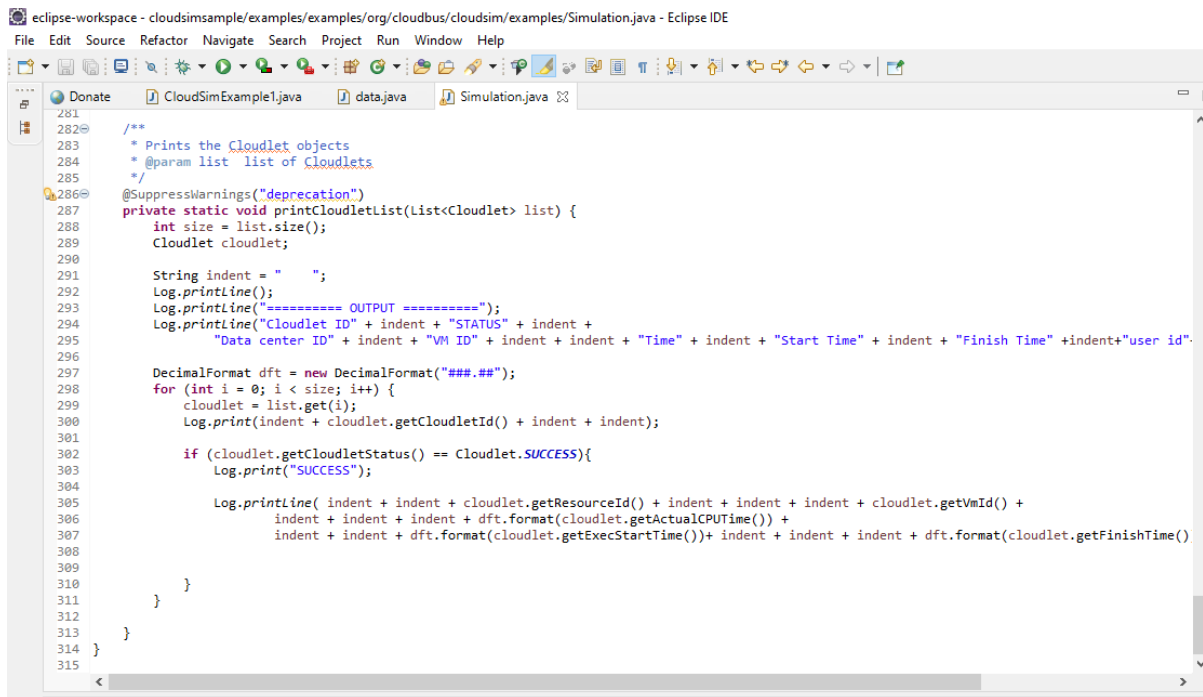
39 * cloudlet on it.
40 */
41 public class CloudSimExample1 {
42
43     /** The cloudlet list. */
44     private static List<Cloudlet> cloudletList;
45
46     /** The vmlist. */
47     private static List<Vm> vmlist;
48
49     /**
50      * Creates main() to run this example.
51      *
52      * @param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

OUTPUT:

```
Initialising...
Starting CloudSim version 3.0
Datacenter_0 is starting...
Broker is starting...
Entities started.
0.0: Broker: Cloud Resource List received with 1 resource(s)
0.0: Broker: Trying to Create VM #0 in Datacenter_0
0.1: Broker: VM #0 has been created in Datacenter #2, Host #0
0.1: Broker: Sending cloudlet 0 to VM #0
400.1: Broker: Cloudlet 0 received
400.1: Broker: All Cloudlets executed. Finishing...
400.1: Broker: Destroying VM #0
Broker is shutting down...
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
CloudSimExample1 finished!
```

SCHEDULING ALGORITHM:(SJF)



```
281
282  /**
283   * Prints the Cloudlet objects
284   * @param list list of Cloudlets
285   */
286  @SuppressWarnings("deprecation")
287  private static void printCloudletList(List<Cloudlet> list) {
288      int size = list.size();
289      Cloudlet cloudlet;
290
291      String indent = "  ";
292      Log.println();
293      Log.println("===== OUTPUT =====");
294      Log.println("Cloudlet ID" + indent + "STATUS" + indent +
295          "Data center ID" + indent + "VM ID" + indent + indent + "Time" + indent + "Start Time" + indent + "Finish Time" +indent+"user id".
296
297      DecimalFormat dft = new DecimalFormat("###.##");
298      for (int i = 0; i < size; i++) {
299          cloudlet = list.get(i);
300          Log.print(indent + cloudlet.getCloudletId() + indent + indent);
301
302          if (cloudlet.getCloudletStatus() == Cloudlet.SUCCESS){
303              Log.print("SUCCESS");
304
305              Log.println( indent + indent + cloudlet.getResourceId() + indent + indent + indent + cloudlet.getVmId() +
306                  indent + indent + indent + dft.format(cloudlet.getActualCPUTime()) +
307                  indent + indent + dft.format(cloudlet.getExecStartTime())+ indent + indent + indent + dft.format(cloudlet.getFinishTime()
308
309          }
310      }
311  }
312
313  }
314 }
315
```

```
Starting CloudSimExample6...
Initialising...
Starting CloudSim version 3.0
Datacenter_0 is starting...
Datacenter_1 is starting...
Broker is starting...
Entities started.
0.0: Broker: Cloud Resource List received with 2 resource(s)
0.0: Broker: Trying to Create VM #0 in Datacenter_0
0.0: Broker: Trying to Create VM #1 in Datacenter_0
0.0: Broker: Trying to Create VM #2 in Datacenter_0
0.0: Broker: Trying to Create VM #3 in Datacenter_0
0.0: Broker: Trying to Create VM #4 in Datacenter_0
0.0: Broker: Trying to Create VM #5 in Datacenter_0
0.0: Broker: Trying to Create VM #6 in Datacenter_0
0.0: Broker: Trying to Create VM #7 in Datacenter_0
0.0: Broker: Trying to Create VM #8 in Datacenter_0
0.0: Broker: Trying to Create VM #9 in Datacenter_0
[VmScheduler.vmCreate] Allocation of VM #6 to Host #0 failed by RAM
[VmScheduler.vmCreate] Allocation of VM #6 to Host #1 failed by MIPS
[VmScheduler.vmCreate] Allocation of VM #7 to Host #0 failed by RAM
[VmScheduler.vmCreate] Allocation of VM #7 to Host #1 failed by MIPS
[VmScheduler.vmCreate] Allocation of VM #8 to Host #0 failed by RAM
[VmScheduler.vmCreate] Allocation of VM #8 to Host #1 failed by MIPS
[VmScheduler.vmCreate] Allocation of VM #9 to Host #0 failed by RAM
[VmScheduler.vmCreate] Allocation of VM #9 to Host #1 failed by MIPS
0.1: Broker: VM #0 has been created in Datacenter #2, Host #0
0.1: Broker: VM #1 has been created in Datacenter #2, Host #0
0.1: Broker: VM #2 has been created in Datacenter #2, Host #0
0.1: Broker: VM #3 has been created in Datacenter #2, Host #1
0.1: Broker: VM #4 has been created in Datacenter #2, Host #0
0.1: Broker: VM #5 has been created in Datacenter #2, Host #1
0.1: Broker: Creation of VM #6 failed in Datacenter #2
```

0.2: Broker: Sending cloudlet 2 to VM #2
0.2: Broker: Sending cloudlet 3 to VM #3
0.2: Broker: Sending cloudlet 4 to VM #4
0.2: Broker: Sending cloudlet 5 to VM #5
0.2: Broker: Sending cloudlet 6 to VM #6
0.2: Broker: Sending cloudlet 7 to VM #7
0.2: Broker: Sending cloudlet 8 to VM #8
0.2: Broker: Sending cloudlet 9 to VM #9
0.2: Broker: Sending cloudlet 10 to VM #0
0.2: Broker: Sending cloudlet 11 to VM #1
0.2: Broker: Sending cloudlet 12 to VM #2
0.2: Broker: Sending cloudlet 13 to VM #3
0.2: Broker: Sending cloudlet 14 to VM #4
0.2: Broker: Sending cloudlet 15 to VM #5
0.2: Broker: Sending cloudlet 16 to VM #6
0.2: Broker: Sending cloudlet 17 to VM #7
0.2: Broker: Sending cloudlet 18 to VM #8
0.2: Broker: Sending cloudlet 19 to VM #9
0.2: Broker: Sending cloudlet 20 to VM #0
0.2: Broker: Sending cloudlet 21 to VM #1
0.2: Broker: Sending cloudlet 22 to VM #2
0.2: Broker: Sending cloudlet 23 to VM #3
0.2: Broker: Sending cloudlet 24 to VM #4
0.2: Broker: Sending cloudlet 25 to VM #5
0.2: Broker: Sending cloudlet 26 to VM #6
0.2: Broker: Sending cloudlet 27 to VM #7
0.2: Broker: Sending cloudlet 28 to VM #8
0.2: Broker: Sending cloudlet 29 to VM #9
0.2: Broker: Sending cloudlet 30 to VM #0
0.2: Broker: Sending cloudlet 31 to VM #1
0.2: Broker: Sending cloudlet 32 to VM #2
0.2: Broker: Sending cloudlet 33 to VM #3
0.2: Broker: Sending cloudlet 34 to VM #4

1.3539999999999999: Broker: Cloudlet 7 received
1.377: Broker: Cloudlet 5 received
1.6349999999999998: Broker: Cloudlet 6 received
1.781: Broker: Cloudlet 2 received
2.299: Broker: Cloudlet 1 received
2.471: Broker: Cloudlet 13 received
2.532: Broker: Cloudlet 8 received
2.826: Broker: Cloudlet 9 received
2.831: Broker: Cloudlet 4 received
2.941: Broker: Cloudlet 12 received
3.0509999999999997: Broker: Cloudlet 0 received
3.0509999999999997: Broker: Cloudlet 15 received
3.459: Broker: Cloudlet 17 received
4.514: Broker: Cloudlet 16 received
4.55: Broker: Cloudlet 23 received
4.752: Broker: Cloudlet 10 received
4.8619999999999999: Broker: Cloudlet 14 received
5.0819999999999999: Broker: Cloudlet 11 received
5.352: Broker: Cloudlet 19 received
5.4799999999999999: Broker: Cloudlet 22 received
5.4830000000000005: Broker: Cloudlet 18 received
5.88099999999999985: Broker: Cloudlet 25 received
5.9760000000000001: Broker: Cloudlet 27 received
6.3539999999999998: Broker: Cloudlet 24 received
7.0429999999999998: Broker: Cloudlet 35 received
7.105: Broker: Cloudlet 28 received
7.36799999999999986: Broker: Cloudlet 33 received
7.4779999999999998: Broker: Cloudlet 20 received
7.4779999999999998: Broker: Cloudlet 21 received
7.4810000000000001: Broker: Cloudlet 26 received
7.9649999999999998: Broker: Cloudlet 32 received
7.9730000000000001: Broker: Cloudlet 29 received
8.0749999999999998: Broker: Cloudlet 34 received
.....

```

===== OUTPUT =====
Cloudlet ID   STATUS   Data center ID   VM ID   Time   Start Time   Finish Time   user id
3             SUCCESS   2                3       1.07   0.2          1.27         4
7             SUCCESS   3                7       1.15   0.2          1.35         4
5             SUCCESS   2                5       1.18   0.2          1.38         4
6             SUCCESS   3                6       1.43   0.2          1.63         4
2             SUCCESS   2                2       1.58   0.2          1.78         4
1             SUCCESS   2                1       2.1    0.2          2.3          4
13            SUCCESS   2                3       1.2    1.27         2.47         4
8             SUCCESS   3                8       2.33   0.2          2.53         4
9             SUCCESS   3                9       2.63   0.2          2.83         4
4             SUCCESS   2                4       2.63   0.2          2.83         4
12            SUCCESS   2                2       1.16   1.78         2.94         4
0             SUCCESS   2                0       2.85   0.2          3.05         4
15            SUCCESS   2                5       1.67   1.38         3.05         4
17            SUCCESS   3                7       2.11   1.35         3.46         4
16            SUCCESS   3                6       2.88   1.63         4.51         4
23            SUCCESS   2                3       2.08   2.47         4.55         4
10            SUCCESS   2                0       1.7    3.05         4.75         4
14            SUCCESS   2                4       2.03   2.83         4.86         4
11            SUCCESS   2                1       2.78   2.3          5.08         4
19            SUCCESS   3                9       2.53   2.83         5.35         4
22            SUCCESS   2                2       2.54   2.94         5.48         4
18            SUCCESS   3                8       2.95   2.53         5.48         4
25            SUCCESS   2                5       2.83   3.05         5.88         4
27            SUCCESS   3                7       2.52   3.46         5.98         4
24            SUCCESS   2                4       1.49   4.86         6.35         4
35            SUCCESS   2                5       1.16   5.88         7.04         4
28            SUCCESS   3                8       1.62   5.48         7.11         4
33            SUCCESS   2                3       2.82   4.55         7.37         4
20            SUCCESS   2                0       2.73   4.75         7.48         4
21            SUCCESS   2                1       2.4    5.08         7.48         4
26            SUCCESS   3                6       2.97   4.51         7.48         4

```