CloudSim is used for modelling and simulating a cloud computing environment as a means for evaluating a hypothesis prior to software development in order to reproduce tests and results.

Result which we are getting is the output of scheduler.

Datacenters are created.

```
Starting CloudSim version 3.0
Datacenter_0 is starting...
Datacenter_1 is starting...
Datacenter_2 is starting...
Datacenter_3 is starting...
Datacenter_4 is starting...
```

Brokers are assigning particular VMs to the tasks assign in CloudSim.

There are multiple processes in the virtual network created by cloudsim framework. Now each processes will required some vm which will be done by brokers.

```
Broker_0 is starting...
Entities started.
0.0: Broker_0: Cloud Resource List received with 5 resource(s)
0.0: Broker_0: Trying to Create VM #2 in Datacenter_0
0.0: Broker_0: Trying to Create VM #3 in Datacenter_0
0.0: Broker_0: Trying to Create VM #4 in Datacenter_0
0.0: Broker_0: Trying to Create VM #5 in Datacenter_0
0.0: Broker_0: Trying to Create VM #6 in Datacenter_0
[VmScheduler.vmCreate] Allocation of VM #6 to Host #0 failed by RAM
0.1: Broker_0: VM #2 has been created in Datacenter #2, Host #0
0.1: Broker_0: VM #3 has been created in Datacenter #2, Host #0
0.1: Broker_0: VM #4 has been created in Datacenter #2, Host #0
0.1: Broker_0: VM #5 has been created in Datacenter #2, Host #0
0.1: Broker_0: Creation of VM #6 failed in Datacenter #2
0.1: Broker_0: Trying to Create VM #6 in Datacenter_1
0.2: Broker_0: VM #6 has been created in Datacenter #3, Host #0
```

Brokers will sends the task

```
0.2: Broker_0: Sending cloudlet 0 to VM #6
0.2: Broker_0: Sending cloudlet 1 to VM #3
0.2: Broker_0: Sending cloudlet 2 to VM #2
0.2: Broker_0: Sending cloudlet 3 to VM #6
0.2: Broker_0: Sending cloudlet 4 to VM #5
0.2: Broker_0: Sending cloudlet 5 to VM #4
0.2: Broker_0: Sending cloudlet 6 to VM #4
0.2: Broker_0: Sending cloudlet 7 to VM #6
0.2: Broker_0: Sending cloudlet 8 to VM #5
0.2: Broker_0: Sending cloudlet 9 to VM #3
0.2: Broker_0: Sending cloudlet 10 to VM #3
0.2: Broker_0: Sending cloudlet 11 to VM #2
0.2: Broker_0: Sending cloudlet 12 to VM #4
0.2: Broker_0: Sending cloudlet 13 to VM #2
0.2: Broker_0: Sending cloudlet 14 to VM #3
0.2: Broker_0: Sending cloudlet 15 to VM #6
0.2: Broker_0: Sending cloudlet 16 to VM #4
0.2: Broker_0: Sending cloudlet 17 to VM #2
0.2: Broker_0: Sending cloudlet 18 to VM #4
0.2: Broker_0: Sending cloudlet 19 to VM #5
0.2: Broker_0: Sending cloudlet 20 to VM #4
0.2: Broker_0: Sending cloudlet 21 to VM #4
```

```
0.2: Broker_0: Sending cloudlet 22 to VM #2
0.2: Broker_0: Sending cloudlet 23 to VM #2
0.2: Broker_0: Sending cloudlet 24 to VM #2
0.2: Broker_0: Sending cloudlet 25 to VM #5
0.2: Broker_0: Sending cloudlet 26 to VM #4
0.2: Broker_0: Sending cloudlet 27 to VM #2
0.2: Broker_0: Sending cloudlet 28 to VM #2
0.2: Broker_0: Sending cloudlet 29 to VM #3
```

Brokers will receive the task

```
1789.66: Broker_0: Cloudlet 2 received
2152.732: Broker_0: Cloudlet 1 received
2595.268: Broker_0: Cloudlet 5 received
2743.712: Broker_0: Cloudlet 0 received
3584.868: Broker_0: Cloudlet 11 received
3613.56: Broker_0: Cloudlet 9 received
3738.3199999999997: Broker_0: Cloudlet 4 received
4357.719999999999: Broker_0: Cloudlet 6 received
4830.099999999999: Broker_0: Cloudlet 12 received
5824.236: Broker_0: Cloudlet 3 received
6540.324: Broker_0: Cloudlet 8 received
7632.812: Broker_0: Cloudlet 13 received
7713.208: Broker_0: Cloudlet 10 received
8114.668: Broker_0: Cloudlet 7 received
8191.056: Broker_0: Cloudlet 19 received
8676.688: Broker_0: Cloudlet 17 received
8863.412: Broker_0: Cloudlet 25 received
9054.796: Broker_0: Cloudlet 16 received
9835.044: Broker_0: Cloudlet 22 received
10309.248: Broker_0: Cloudlet 15 received
10516.224: Broker_0: Cloudlet 14 received
10863.880000000001: Broker_0: Cloudlet 23 received
11917.312000000002: Broker_0: Cloudlet 18 received
12851.708000000002: Broker_0: Cloudlet 29 received
14415.668000000001: Broker_0: Cloudlet 24 received
14459.396: Broker_0: Cloudlet 20 received
17272.888: Broker_0: Cloudlet 21 received
17826.888: Broker_0: Cloudlet 27 received
18100.824: Broker_0: Cloudlet 26 received
20644.872: Broker_0: Cloudlet 28 received
All Cloudlets executed. Finishing...
20644.872: Broker_0: Destroying VM #2
20644.872: Broker_0: Destroying VM #3
20644.872: Broker_0: Destroying VM #4
20644.872: Broker_0: Destroying VM #5
20644.872: Broker_0: Destroying VM #6
Broker_0 is shutting down...
Simulation: No more future events
CloudInformationService: Notify all CloudSim entities for shutting down.
Datacenter_0 is shutting down...
Datacenter_1 is shutting down...
Datacenter_2 is shutting down...
Datacenter_3 is shutting down...
Datacenter_4 is shutting down...
Broker_0 is shutting down...
Simulation completed.
Simulation completed.
```

Now broker will assign the received task to different VMs

```
========== OUTPUT ==========
Cloudlet ID    STATUS    Data center ID    VM ID        Time    Start Time    Finish Time
    00        SUCCESS        03            06        2743.51        00.2            2743.71
    01        SUCCESS        02            03        2152.53        00.2            2152.73
    02        SUCCESS        02            02        1789.46        00.2            1789.66
    03        SUCCESS        03            06        3080.52        2743.71            5824.24
    04        SUCCESS        02            05        3738.12        00.2            3738.32
    05        SUCCESS        02            04        2595.07        00.2            2595.27
    06        SUCCESS        02            04        1762.45        2595.27            4357.72
    07        SUCCESS        03            06        2290.43        5824.24            8114.67
    08        SUCCESS        02            05        2802        3738.32            6540.32
    09        SUCCESS        02            03        1460.83        2152.73            3613.56
    10        SUCCESS        02            03        4099.65        3613.56            7713.21
    11        SUCCESS        02            02        1795.21        1789.66            3584.87
    12        SUCCESS        02            04        472.38        4357.72            4830.1
    13        SUCCESS        02            02        4047.94        3584.87            7632.81
    14        SUCCESS        02            03        2803.02        7713.21            10516.22
    15        SUCCESS        03            06        2194.58        8114.67            10309.25
    16        SUCCESS        02            04        4224.7        4830.1            9054.8
    17        SUCCESS        02            02        1043.88        7632.81            8676.69
    18        SUCCESS        02            04        2862.52        9054.8            11917.31
    19        SUCCESS        02            05        1650.73        6540.32            8191.06
    20        SUCCESS        02            04        2542.08        11917.31            14459.4
    21        SUCCESS        02            04        2813.49        14459.4            17272.89
    22        SUCCESS        02            02        1158.36        8676.69            9835.04
    23        SUCCESS        02            02        1028.84        9835.04            10863.88
    24        SUCCESS        02            02        3551.79        10863.88
14415.67
    25        SUCCESS        02            05        672.36        8191.06            8863.41
    26        SUCCESS        02            04        827.94        17272.89            18100.82
    27        SUCCESS        02            02        3411.22        14415.67
17826.89
    28        SUCCESS        02            02        2817.98        17826.89
20644.87
    29        SUCCESS        02            03        2335.48        10516.22
12851.71
Makespan using FCFS: 4648.833244969686
FCFS.FCFS_Scheduler finished!
```