

Exp No: 8

Date:

CLOUD SIMULATION

IMPLEMENT ROUND ROBIN TASK SCHEDULING IN BOTHTIMESHARED AND SPACE SHARED CPU ASSIGNMENT

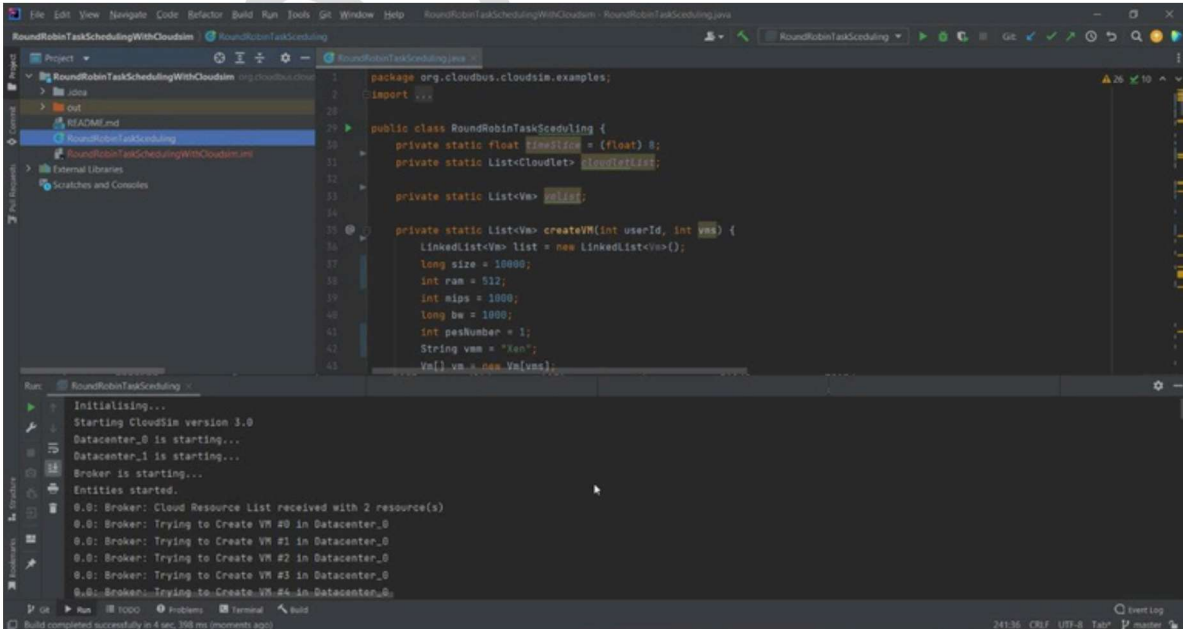
AIM:

Implement RoundRobin task scheduling in both TimeShared and SpaceShared CPU assignments.

PROCEDURE:

1. Create a new project by selecting java console line application template and JDK 18.
2. Open project settings from the file menu of the options window.
3. Navigate to project dependencies and select on add external jars and then click on 'Browse' to open the path where you have unzipped the Cloudsim Jars and click on apply.
4. Create a java file with the cloudsim code to implement the Round robin scheduling algorithm.
5. Run the application as a java file to see the output in the console below.

OUTPUT:



The screenshot displays an IDE with a Java project named 'RoundRobinTaskSchedulingWithCloudsim'. The main editor shows the 'RoundRobinTaskScheduling.java' file with the following code:

```
package org.cloudbus.cloudsim.examples;
import java.util.*;

public class RoundRobinTaskScheduling {
    private static float timeslice = (float) 0;
    private static List<Cloudlet> cloudlets;

    private static List<Vm> vms;

    private static List<Vm> createVm(int userId, int vms) {
        LinkedList<Vm> list = new LinkedList<>();
        long size = 10000;
        int ram = 512;
        int mips = 1000;
        long bw = 1000;
        int pesNumber = 1;
        String vnm = "vm";
        Vm[] vm = new Vm[vms];
    }
}
```

The console output shows the following sequence of events:

```
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
```

RESULT:

Thus Round Robin task scheduling is implemented using cloud simulator.