

Exp No: 8

Date:

**CLOUD SIMULATION****IMPLEMENT ROUND ROBIN TASK SCHEDULING IN BOTH TIME SHARED 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 shows an IDE with a Java file named `RoundRobinTaskScheduling.java`. The code implements a round-robin task scheduling algorithm using CloudSim. It includes a package declaration, imports, and a public class `RoundRobinTaskScheduling` with several private static variables and methods. The `createVM` method is highlighted. Below the code, the Run console shows the execution output, including initialization steps, datacenter startup, and VM creation attempts.

```

package org.cloudbus.cloudsim.examples;
import ...

public class RoundRobinTaskScheduling {
    private static float timeslice = (float) 8;
    private static List<Cloudlet> cloudletList;

    private static List<Vm> vmlist;

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

```

```

Run: RoundRobinTaskScheduling
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.