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Adding 2 more Vms

The screenshot shows the Eclipse IDE with the file `CloudSimExample2.java` open. The code defines four virtual machines (vm1, vm2, vm3, vm4) and adds them to a `vmList`. The console output shows the execution results for four cloudlets.

```
String vmm = "Ken"; //VMM name

//create two Vms
Vm vm1 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
vmid++;
Vm vm2 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
vmid++;
Vm vm3 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
vmid++;
Vm vm4 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());

//add the Vms to the vmList
vmList.add(vm1);
vmList.add(vm2);
vmList.add(vm3);
vmList.add(vm4);

//submit vm list to the broker
broker.submitVmList(vmList);

//Fifth step: Create two cloudlets
cloudletList = new ArrayList<Cloudlet>();

//cloudlet properties
int id = 0;
pesNumber=1;
long length = 250000;
long fileSize = 300;
long outputSize = 300;
utilizationModel utilizationModel = new UtilizationModelFull();

Cloudlet cloudlet1 = new Cloudlet(id, length, pesNumber, fileSize, outputSize, utilizationModel, utilizationModel,
```

Cloudlet ID	STATUS	Data center ID	VM ID	Time	Start Time	Finish Time
0	SUCCESS	2	0	1000	0.1	1000.1
1	SUCCESS	2	1	1000	0.1	1000.1
2	SUCCESS	2	2	1000	0.1	1000.1
3	SUCCESS	2	3	1000	0.1	1000.1

CloudSimExample2 finished!

The screenshot shows the Eclipse IDE with the file `CloudSimExample2.java` open. The code defines four virtual machines (vm1, vm2, vm3, vm4) and adds them to a `vmList`. The console output shows the execution results for four cloudlets.

```
//Fourth step: Create one virtual machine
vmList = new ArrayList<Vm>();

//VM description
int vmid = 0;
long size = 250;
long mips = 10000; //image size (MB)
int ram = 512; //vm memory (MB)
long bw = 1000;
int pesNumber = 1; //number of cpus
String vmm = "Ken"; //VMM name

//create two Vms
Vm vm1 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
vmid++;
Vm vm2 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
vmid++;
Vm vm3 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
vmid++;
Vm vm4 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());

//add the Vms to the vmList
vmList.add(vm1);
vmList.add(vm2);
vmList.add(vm3);
vmList.add(vm4);

//submit vm list to the broker
broker.submitVmList(vmList);

//Fifth step: Create two cloudlets
cloudletList = new ArrayList<Cloudlet>();
```

Cloudlet ID	STATUS	Data center ID	VM ID	Time	Start Time	Finish Time
0	SUCCESS	2	0	1000	0.1	1000.1
1	SUCCESS	2	1	1000	0.1	1000.1
2	SUCCESS	2	2	1000	0.1	1000.1
3	SUCCESS	2	3	1000	0.1	1000.1

CloudSimExample2 finished!

## Adding 2 more Cloudlets

```

119 long fileSize = 300;
120 long outputSize = 300;
121 UtilizationModel utilizationModel = new UtilizationModelFull();
122
123 Cloudlet cloudlet1 = new Cloudlet(id, length, pesNumber, fileSize, outputSize, utilizationModel, utilizationModel,
124 cloudlet1.setUserid(brokerId);
125 id++;
126 Cloudlet cloudlet2 = new Cloudlet(id, length, pesNumber, fileSize, outputSize, utilizationModel, utilizationModel,
127 cloudlet2.setUserid(brokerId);
128 id++;
129 Cloudlet cloudlet3 = new Cloudlet(id, length, pesNumber, fileSize, outputSize, utilizationModel, utilizationModel,
130 cloudlet3.setUserid(brokerId);
131 id++;
132 Cloudlet cloudlet4 = new Cloudlet(id, length, pesNumber, fileSize, outputSize, utilizationModel, utilizationModel,
133 cloudlet4.setUserid(brokerId);
134
135 //add the cloudlets to the list
136 cloudletList.add(cloudlet1);
137 cloudletList.add(cloudlet2);
138 cloudletList.add(cloudlet3);
139 cloudletList.add(cloudlet4);
140
141 //submit the cloudlets to the broker
142 broker.submitCloudletList(cloudletList);
143
144 //bind the cloudlets to the vms. This way, the broker
145 //will submit the bound cloudlets only to the specific VM
146 broker.bindCloudletToVm(cloudlet1.getCloudletId(), vm1.getId());
147 broker.bindCloudletToVm(cloudlet2.getCloudletId(), vm2.getId());
148 broker.bindCloudletToVm(cloudlet3.getCloudletId(), vm3.getId());
149 broker.bindCloudletToVm(cloudlet4.getCloudletId(), vm4.getId());

```

```

===== OUTPUT =====
Cloudlet ID   STATUS   Data center ID   VM ID   Time   Start Time   Finish Time
0            SUCCESS   2                0       1000   0.1          1000.1
1            SUCCESS   2                1       1000   0.1          1000.1
2            SUCCESS   2                2       1000   0.1          1000.1
3            SUCCESS   2                3       1000   0.1          1000.1
CloudSimExample2 finished!

```

2 cloudlets have different output and other 2 have different output.

```

79 int brokerId = broker.getId();
80
81 //Fourth step: Create one virtual machine
82 vmList = new ArrayList<Vm>();
83
84 //VM description
85 int vmid = 0;
86 int mips = 250;
87 long size = 10000; //image size (MB)
88 int ram = 512; //vm memory (MB)
89 long bw = 1000;
90 int pesNumber = 1; //number of cpus
91 String vmm = "Xen"; //VMM name
92
93 //create two VMs
94 Vm vm1 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
95 vmid++;
96 Vm vm2 = new Vm(vmid, brokerId, (mips-100), pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
97 vmid++;
98 Vm vm3 = new Vm(vmid, brokerId, mips, pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
99 vmid++;
100 Vm vm4 = new Vm(vmid, brokerId, (mips-100), pesNumber, ram, bw, size, vmm, new CloudletSchedulerTimeShared());
101
102 //add the VMs to the vmList
103 vmList.add(vm1);
104 vmList.add(vm2);
105 vmList.add(vm3);
106 vmList.add(vm4);
107
108 //submit vm list to the broker
109 broker.submitVmList(vmList);
110
111 //Fifth step: Create two cloudlets

```

```

===== OUTPUT =====
Cloudlet ID   STATUS   Data center ID   VM ID   Time   Start Time   Finish Time
0            SUCCESS   2                0       1000   0.1          1000.1
2            SUCCESS   2                2       1000   0.1          1000.1
1            SUCCESS   2                1       1666.67  0.1          1666.77
3            SUCCESS   2                3       1666.67  0.1          1666.77
CloudSimExample2 finished!

```

===== OUTPUT =====						
Cloudlet ID	STATUS	Data center ID	VM ID	Time	Start Time	Finish Time
0	SUCCESS	2	0	<u>1000</u>	0.1	1000.1
2	SUCCESS	2	2	<u>1000</u>	0.1	1000.1
1	SUCCESS	2	1	1666.67	0.1	1666.77
3	SUCCESS	2	3	1666.67	0.1	1666.77

```
1      SUCCESS      2      1      1666.67      0.1
1666.77
3      SUCCESS      2      3      1666.67      0.1
1666.77
CloudSimExample2 finished!
```

Above is the screenshot of output

2 Cloudlets are giving different outputs and 2 are giving different outputs.