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Aim : To Implement the Load Balancing.

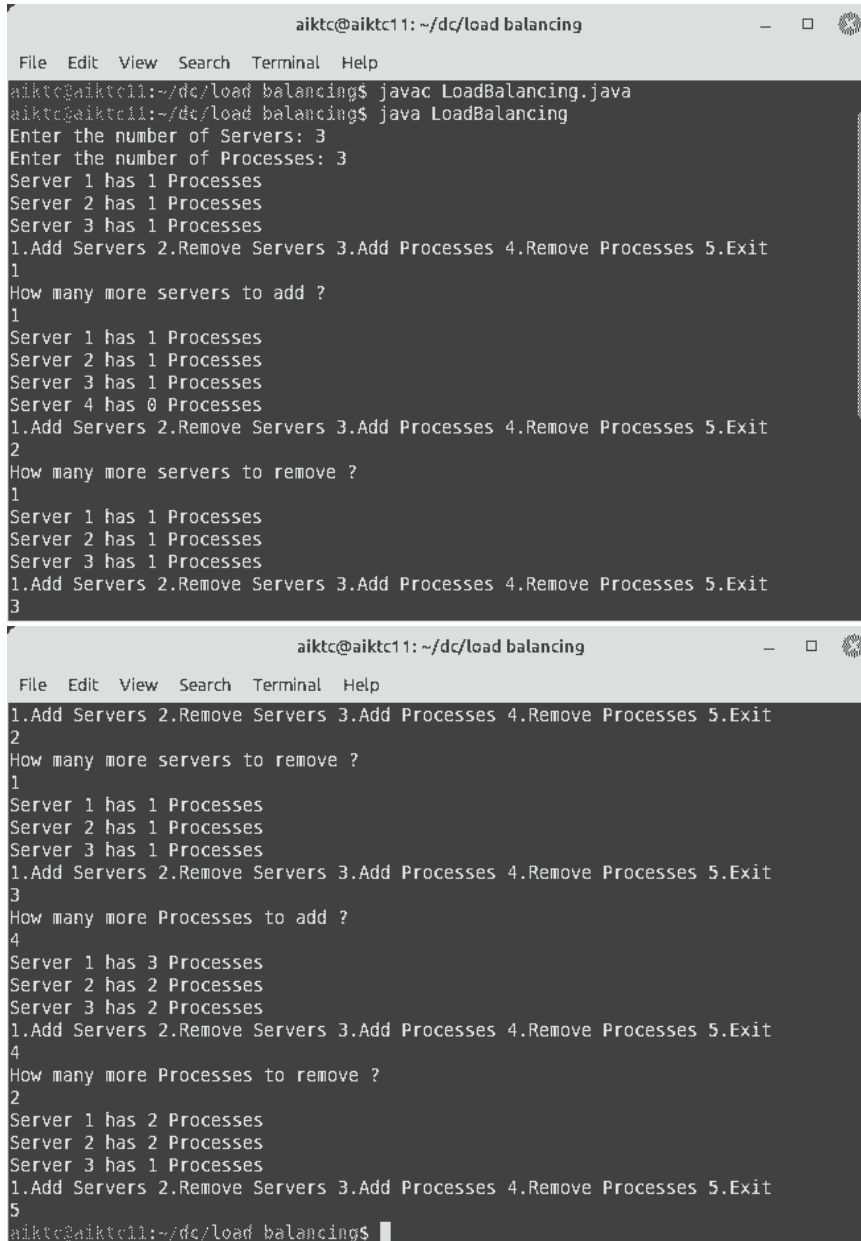
Code:

LoadBalancing.java

```
import java.util.*;
public class LoadBalancing{
static void printLoad(int servers, int processes) {
int each=processes/servers;
int extra=processes%servers;
int total=0;
int i=0;
for(i=0; i<extra; i++) {
System.out.println("Server "+(i+1)+" has "+(each+1)+" Processes");
}
}
while(true) {
printLoad(servers, processes);
System.out.println("1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes
5.Exit ");
switch(sc.nextInt()) {
case 1:
System.out.println("How many more servers to add ? ");
servers+=sc.nextInt();
break;
case 2:
System.out.println("How many more servers to remove ? ");
servers-=sc.nextInt();
break;
case 3:
System.out.println("How many more Processes to add ? ");
processes+=sc.nextInt();
break;
case 4:
System.out.println("How many more Processes to remove ? ");
processes-=sc.nextInt();
break;
case 5:
```

```
return;
}
}
}
}
```

Output:



```
aiktc@aiktc11: ~/dc/load balancing
File Edit View Search Terminal Help
aiktc@aiktc11:~/dc/load balancing$ javac LoadBalancing.java
aiktc@aiktc11:~/dc/load balancing$ java LoadBalancing
Enter the number of Servers: 3
Enter the number of Processes: 3
Server 1 has 1 Processes
Server 2 has 1 Processes
Server 3 has 1 Processes
1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
1
How many more servers to add ?
1
Server 1 has 1 Processes
Server 2 has 1 Processes
Server 3 has 1 Processes
Server 4 has 0 Processes
1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
2
How many more servers to remove ?
1
Server 1 has 1 Processes
Server 2 has 1 Processes
Server 3 has 1 Processes
1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
3
How many more Processes to add ?
4
Server 1 has 3 Processes
Server 2 has 2 Processes
Server 3 has 2 Processes
1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
4
How many more Processes to remove ?
2
Server 1 has 2 Processes
Server 2 has 2 Processes
Server 3 has 1 Processes
1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
5
aiktc@aiktc11:~/dc/load balancing$
```

Conclusion:

Load Balancing has been implemented with adding and removing the process and servers.