DC Expt-8
Program:
```java
import java.util.Scanner;
class LoadBalancer {
  // Moin Mohammed Naik
  // 211P030
  static void printLoad(int servers, int Processes) {
    int each = Processes / servers;
    int extra = Processes % servers;
    int total;
    for (int i = 0; i < servers; i++) {
      if (extra-- > 0)
        total = each + 1;
      else
        total = each;
      System.out.println("Server " + (char) ('A' + i) + " has " + total + "
Processes.");
    }
  }
  public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    System.out.print("Enter the number of servers & processes respectively: ");
    int servers = sc.nextInt();
    int Processes = sc.nextInt();
    while (true) {
      printLoad(servers, Processes);
      System.out.print("\n1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove
Processes 5.Exit\nEnter(1-5): ");
      switch (sc.nextInt()) {
        case 1 -> {
          System.out.print("How many more servers?: ");
          servers += sc.nextInt();
        }
        case 2 -> {
          System.out.print("How many servers to remove?: ");
          servers -= sc.nextInt();
        }
        case 3 -> {
          System.out.print("How many more Processes?: ");
          Processes += sc.nextInt();
        }
        case 4 -> {
          System.out.print("How many Processes to remove?: ");
          Processes -= sc.nextInt();
        }
        case 5 -> {
          return;
        }
      }
    }
  }
}
```

```
PS C:\Users\Moin MN\Downloads> cd "c:\Users\Moin MN\Downloads\" ; if ($?) {
Enter the number of servers & processes respectively: 5
12
Server A has 3 Processes.
Server B has 3 Processes.
Server C has 2 Processes.
Server D has 2 Processes.
Server E has 2 Processes.

1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
Enter(1-5): 1
How many more servers?: 2
Server A has 2 Processes.
Server B has 2 Processes.
Server C has 2 Processes.
Server D has 2 Processes.
Server E has 2 Processes.
Server F has 1 Processes.
Server G has 1 Processes.

1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
Enter(1-5): 3
How many more Processes?: 6
Server A has 3 Processes.
Server B has 3 Processes.
Server C has 3 Processes.
Server D has 3 Processes.
Server E has 2 Processes.
Server F has 2 Processes.
Server G has 2 Processes.

1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
Enter(1-5): 2
How many servers to remove?: 3
Server A has 5 Processes.
Server B has 5 Processes.
Server C has 4 Processes.
Server D has 4 Processes.
```

```
1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
Enter(1-5): 2
How many servers to remove?: 3
Server A has 5 Processes.
Server B has 5 Processes.
Server C has 4 Processes.
Server D has 4 Processes.

1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
Enter(1-5): 4
How many Processes to remove?: 8
Server A has 3 Processes.
Server B has 3 Processes.
Server C has 2 Processes.
Server D has 2 Processes.

1.Add Servers 2.Remove Servers 3.Add Processes 4.Remove Processes 5.Exit
Enter(1-5): 5
PS C:\Users\Moin MN\Downloads>
```