

```
1 import java.util.Scanner;
2
3 class ElectricityBillingSystem {
4     // Constants for rate slabs
5     private static final double RATE_SLAB_1 = 7.0;
6     // Rate for the first 100 units
7     private static final double RATE_SLAB_2 = 8.0;
8     // Rate for the next 200 units
9     private static final double RATE_SLAB_3 = 10.0;
10    // Rate for units above 300
11
12    private static final int SLAB_1_LIMIT = 100;
13    private static final int SLAB_2_LIMIT = 300;
14
15    public static void main(String[] args) {
16        Scanner scanner = new Scanner(System.in);
17
18        System.out.print("Enter the number of units
19        consumed: ");
20        int unitsConsumed = scanner.nextInt();
21
22        double totalBill = calculateElectricityBill(
23        unitsConsumed);
24        System.out.println("Total Electricity Bill:
25        Rs " + totalBill + "/-");
26
27        scanner.close();
28    }
29
30    private static double calculateElectricityBill(
31    int unitsConsumed) {
32        double billAmount = 0;
33
34        if (unitsConsumed <= SLAB_1_LIMIT) {
35            billAmount = unitsConsumed * RATE_SLAB_1;
36        } else if (unitsConsumed <= SLAB_2_LIMIT) {
37            billAmount = SLAB_1_LIMIT * RATE_SLAB_1
38            + (unitsConsumed - SLAB_1_LIMIT) * RATE_SLAB_2;
39        } else {
40            billAmount = SLAB_1_LIMIT * RATE_SLAB_1
41            + (SLAB_2_LIMIT - SLAB_1_LIMIT) * RATE_SLAB_2
```

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33          + (unitsConsumed - SLAB_2_LIMIT
    ) * RATE_SLAB_3;
34      }
35
36      return billAmount;
37  }
38 }
39
```