

1.A) An electricity board charges the following rates to domestic users to discourage large consumption of energy:

For the first 100 units - 50P per unit

For next 200 units - 80P per unit

Beyond 300 units - 90P per unit

All users are charged a minimum of Rs.50.00. if the total amount is more than Rs.300.00 than an additional surcharge of 15% is added

Write a C++ program to read the names of users and number of units consumed and print out the charges with names.

```
#include <iostream>
#include <string>
using namespace std;
int main() {
    int users;
    string name;
    int units;
    double totalCharge = 0.0;
    cout << "Enter the number of users: ";
    cin >> users;
    for (int i = 1; i <= users; ++i) {
        cout << "Enter name of user " << i << ": ";
        cin >> name;
        cout << "Enter number of units consumed by " << name << ": ";
        cin >> units;
        double charge = 0.0;
        if (units <= 100) {
            charge = units * 0.50;
        } else if (units <= 300) {
            charge = (100 * 0.50) + ((units - 100) * 0.80);
        } else {
            charge = (100 * 0.50) + (200 * 0.80) + ((units - 300) * 0.90);
        }
        if (charge > 300.0) {
            charge += charge * 0.15;
        }
        if (charge < 50.0) {
            charge = 50.0;
        }
        totalCharge += charge;
        cout << "Charges for " << name << ": Rs. " << charge << endl;
    }
    return 0;
}
```

