#include <iostream>

using namespace std;

int main ()

{

       float restBill;

       char qualityOfService;

       float tip;

       float totalBill;

       //input restaurant bill

       cout << "Enter restaurant bill, negative to quit" << endl;

       cin >> restBill;

       while (restBill >= 0)

       {

              //input quality of service

              cout << "How was your service?" << endl;

              cout <<"Enter P for poor, A for Average, and E for Excellent" << endl;

              cin >> qualityOfService;

              //calculate tip

              if (qualityOfService == 'P' || qualityOfService == 'p')

                     tip = .10 \* restBill;

              else if (qualityOfService == 'A' || qualityOfService == 'a')

                     tip = .15 \* restBill;

              else if (qualityOfService == 'E' || qualityOfService == 'e')

                     tip = .20 \* restBill;

              else

                     tip = .15 \* restBill;

              //calculate total bill

              totalBill = restBill + tip;

              cout << "total bill is "<< totalBill;

              //input restaurant bill

              cout << "Enter restaurant bill, negative to quit" << endl;

              cin >> restBill;

       }

       return 0;

}

#include <iostream>

using namespace std;

void InputRestBill(float& restBill);

void InputQualityOfService(char& qualityOfService);

float Tip(char qualityOfService,float restBill);

void CalcFinalBill(float restBill, float tip, float& totalBill);

int main ()

{

float restBill;

       char qualityOfService;

       float tip;

       float totalBill;

       InputRestBill(restBill);

       while (restBill >= 0)

       {

            InputQualityOfService(qualityOfService);

           tip = Tip(qualityOfService,restBill);

            CalcFinalBill(restBill, tip, totalBill);

            cout <<"Total Bill is " << totalBill << endl;

            InputRestBill(restBill);

       }

       return 0;

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

//input restaurant bill

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

void InputRestBill(float& restBill)

{

       cout << "Enter restaurant bill, negative to quit" << endl;

       cin >> restBill;

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

//input quality of service

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

void InputQualityOfService(char& qualityOfService)

{

  cout << "How was your service?" << endl;

       cout <<"Enter P for poor, A for Average, and E for Excellent" << endl;

       cin >> qualityOfService;

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*

//calculate tip

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

float Tip(char qualityOfService,float restBill)

{

       float tip;

       if (qualityOfService == 'P' || qualityOfService == 'p')

       tip = (float).10 \* restBill;

    else if (qualityOfService == 'A' || qualityOfService == 'a')

        tip = (float).15 \* restBill;

    else if (qualityOfService == 'E' || qualityOfService == 'e')

        tip = (float).20 \* restBill;

    else

        tip = (float).15 \* restBill;

       return tip;

}

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

//calculate total bill

//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

void CalcFinalBill(float restBill, float tip, float& totalBill)

{

    totalBill = restBill + tip;

    cout << "total bill is "<< totalBill;

}