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//*****
//
//   Sample Solution for pa4.cc   --   Fall 2005
//
//*****
#include <iostream>
#include <iomanip>
#include <string>
using namespace std;

const int PRIVATE = 300, SEMI_PRIVATE = 195, WARD = 95;
const double PHONE_RATE = 2.25, TV_RATE = 4.00;
const double MAX = 100.00;

int main()
{
    string name, roomDescription;
    int    days, fee;
    char   roomType, tv, phone;
    double totalCharge, roomCharge, tvCharge, phoneCharge;

    cout << "Enter name of patient: ";
    getline(cin,name);

    cout << "Number of Days in Hospital: ";
    cin >> days;

    cout << "Room Type (P = Private, S = Semi-Private, W = 6-patient Ward): ";
    cin >> roomType;

    cout << "Telephone Use (Y/N): ";
    cin >> phone;
    cout << "Television Use (Y/N): ";
    cin >> tv;

    if (roomType == 'P')
    {
        fee = PRIVATE;
        roomCharge = days * PRIVATE;
        roomDescription = "Private";
    }
    else if (roomType == 'S')
    {
        fee = SEMI_PRIVATE;
        roomCharge = days * SEMI_PRIVATE;
        roomDescription = "Semi-Private";
    }
    else
    {
        fee = WARD;
        roomCharge = days * WARD;
        roomDescription = "6-Patient Ward";
    }

    if (phone == 'Y')
    {
        phoneCharge = days * PHONE_RATE;
        if (phoneCharge > MAX)
            phoneCharge = MAX;
    }
    else
        phoneCharge = 0.00;
}

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if (tv == 'Y')
{
    tvCharge = days * TV_RATE;
    if (tvCharge > MAX)
        tvCharge = MAX;
}
else
    tvCharge = 0.00;

totalCharge = roomCharge + phoneCharge + tvCharge;

cout << fixed << showpoint;
cout.precision(2);

cout << "Community Hospital\n";
cout << "Total Bill for: " << name << endl;
cout << "-----\n";
cout << "Length of Stay (Days): " << days << endl;
cout << "          Room Type: " << roomDescription << endl << endl;
cout << "Room Charge          " << setw(10) << roomCharge << " ("
    << days << " days @ $" << fee << " per day)" << endl;
cout << "Telephone Charge      " << setw(10) << phoneCharge << endl;
cout << "Television Charge     " << setw(10) << tvCharge << endl;
cout << "          -----\n";
cout << "TOTAL BILL           $" << setw(10) << totalCharge << "\n\n";

return 0;
}

```