#include *<bits/stdc++.h>*

**using namespace** std;

**int** main()

{

*// Get the user input*

cout << "Circuit Description: ";

string circuitDesc;

getline(cin, circuitDesc);

* *Define the voltage and Equivalent resistance variables* **double** voltage{}, req{0};

**int** len{circuitDesc.length()};

**if**(circuitDesc[0]=='P')

{

* *Iterate through the string using spaces as delimiters and converting the substrings to doubles* **for**(**int** i{1}, j{};i<len;i=j)

{

j = circuitDesc.find(" ", i+1);

**if** (j!=string::npos)

req += 1 / stod(circuitDesc.substr(i, j-i));

**else**

**break**;

}

* *Invert the value to get R equivalent* req = 1 / req;

}

**else if** (circuitDesc[0]=='S')

{

**for**(**int** i{1}, j{};i<len;i=j)

{

* = circuitDesc.find(" ", i+1);

**if** (j!=string::npos)

req += stod(circuitDesc.substr(i, j-i));

**else**

**break**;

}

}

**else**

{

cout << "Wrong Circuit Description" << endl;

**return** 0;

}

* *Read the voltage applied* cout << "Voltage Applied: "; cin >> voltage;

cout << "Equivalent Resistance: " << req << endl;

cout << "Current: " << voltage / req << endl;

}

Text

Description automatically generated

Graphical user interface, text

Description automatically generated

Graphical user interface, text

Description automatically generated

Graphical user interface

Description automatically generated

A screenshot of a computer

Description automatically generated with medium confidence

Graphical user interface, text

Description automatically generated