// Online C++ compiler to run C++ program online

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#include<iostream>

#include<math.h>

using namespace std;

int main() {

double num1, num2;

char operation;

int op;

char ans;

ans='y';

do{

cout << "Simple Calculator!" << endl;

cout << "Enter the First Number: ";

cin >> num1;

//cout << "Enter the Second Number: ";

//cin >> num2;

cout << "Choose the corresponding number for reqired operation \n 1.Addition\n 2.Subtraction\n 3.Multiplication \n 4.division\n 5.Square of\n 6.Trignometric \n Your Choice: ";

cin >> operation;

switch (operation) {

case '1':{ cout << "Enter the Second Number: ";

cin >> num2;

cout << "Result: " << num1 + num2 << endl;}

break;

case '2':{ cout << "Enter the Second Number: ";

cin >> num2;

cout << "Result: " << num1 - num2 << endl;}

break;

case '3':{ cout << "Enter the Second Number: ";

cin >> num2;

cout << "Result: " << num1 \* num2 << endl;}

break;

case '4':{ cout << "Enter the Second Number: ";

cin >> num2;

if (num2 == 0) {

cout << "Error: Division by zero is not allowed." << endl;

} else {

cout << "Result: " << num1 / num2 << endl;

}}

break;

case '5':

cout<<"Result: "<<num1\*num1<<endl;

break;

case '6':

{cout<<"Choose the reqired function of trignometry \n 1.sine\n 2.cosine\n 3.tan\n Your Choice: ";

cin>>op;

if (op==1) cout<<"Result: "<<sin(num1)<<endl;

else if(op==2) cout<<"Result: "<<cos(num1)<<endl;

else if (op==3) cout<<"Result: "<<tan(num1)<<endl;

else cout << "Operation does not exist.Please choose a valid operation." << endl;

break;

}

default:

cout << "Operation does not exist.Please choose a valid operation." << endl;

}

cout<<"Do you want to try again? (y/n)"; cin>>ans;

}

while(ans='y');

return 0;

}