Switch Statement

Switch case statements are a substitute for long if statements that compare a variable to multiple values. After a match is found, it executes the corresponding code of that value case.

Syntax:

```
switch (n)
{
   case 1:     // code to be executed if n == 1;
      break;

   case 2:     // code to be executed if n == 2;
      break;

   default:   // code to be executed if n doesn't match any of the above cases
}
```

- The variable in switch should have a constant value.
- The break statement is optional. It terminates the switch statement and moves control to the next line after switch.
- If break statement is not added, switch will not get terminated and it will continue onto the next line after switch.
- Every case value should be unique.
- Default case is optional. But it is important as it is executed when no case value could be matched.

Examples

Ques1. Write a program to write a simple calculator.

```
#include <iostream>
using namespace std;

int main() {

   int n1,n2;
   char op;

   cout<<"Enter 2 numbers: ";
   cin>>n1>>n2;

   cout<<"Enter operand: ";
   cin>>op;

   switch (op)
   {

   case '+':
       cout<<n1+n2<<endl;
       break;
   case '-':
       cout<<n1-n2<<endl;
       break;
   case '*':
       cout<<n1*n2<<endl;
       break;
   case '/':
       cout<<n1/n2<<endl;
       break;
   case '%':
       cout<<n1%n2<<endl;
       break;

   default:
       cout<<"Operator not found!"<<endl;
       break;
   }


   return 0;
```

```
}
```

Ques2. Write a program to find whether an alphabet is a vowel or a consonant.

```
#include <iostream>
using namespace std;

int main() {

   char c;

   cout<<"Enter an alphabet: ";
   cin>>c;

   switch (c)
   {
   case 'a':
       cout<<"It is a vowel"<<endl;
       break;
   case 'e':
       cout<<"It is a vowel"<<endl;
       break;
   case 'i':
       cout<<"It is a vowel"<<endl;
       break;
   case 'o':
       cout<<"It is a vowel"<<endl;
       break;
   case 'u':
       cout<<"It is a vowel"<<endl;
       break;
   default:
       cout<<"It is a consonant"<<endl;
       break;
   }

   return 0;
}
```