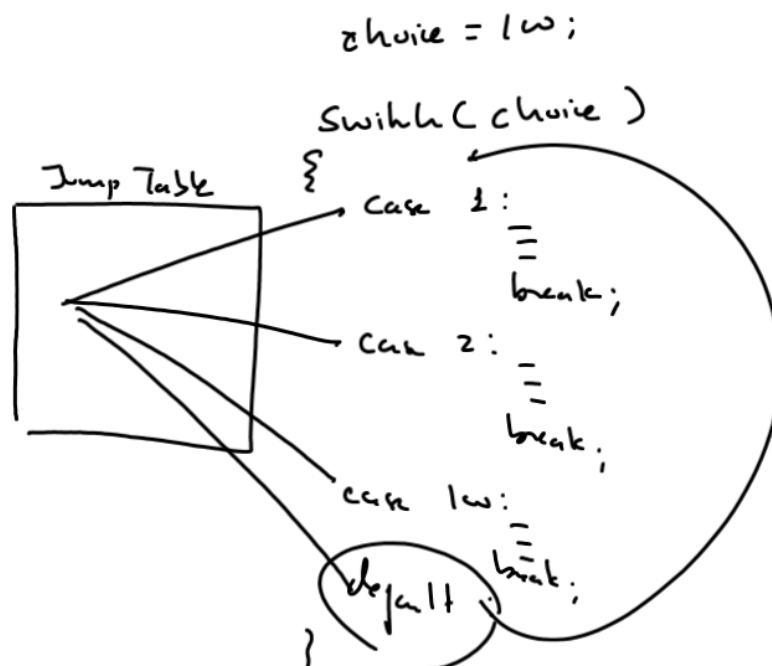


Which statement amongst switch and if is better and why ?



Which statement amongst switch and if is better and why?

=====

Before we can understand the answer to the above question, we must 1st understand how switch works internally.

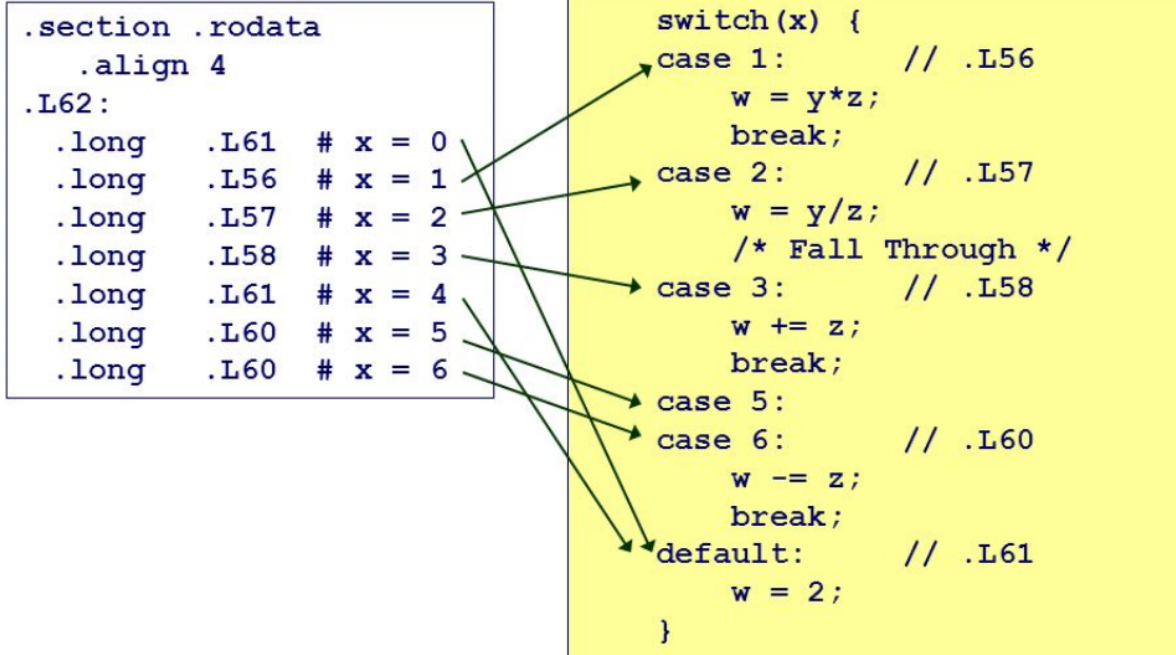
Whenever we use switch in our program, the C,C++ as well as Java also, compiler generates a special **instruction set** called as **JUMP TABLE**. This jump table contains direct shortcuts to case bodies. So when the program is executed, not every case is matched with the variable used in switch. Rather the jump table is used to directly reach the body of matching case. Due to this the speed of execution of switch is very fast as compare to **if** because no jump table is created for if statement.

But that does not mean that switch is always good. We should prefer switch only when no. of possibilities are too many. Like vowel checking is good example which should be done using switch. On the other hand if no. of conditions are very less like checking for even/odd then we should go for if statement.

So the conclusion is both are good in their own perspective and we should wisely choose amongst them as per the questions

Jump Table

Table Contents



WAP to accept a character from the user and check whether it is vowel or not ?

```
#include <stdio.h>
#include <conio.h>
void main()
{
    char ch;
    clrscr();
    printf("Enter a char:");
    scanf("%c",&ch);
    switch(ch)
    {
        case 'A': case 'a': case 'E': case 'e': case 'I': case 'i':
        case 'O': case 'o': case 'U': case 'u':
            printf("It is a vowel");
            break;
        default:
            printf("It is not a vowel");
    }
    getch();
}
```

Assignments:

=====

Qn1. WAP to ask the user to select a figure amongst CIRCLE, RECTANGLE and TRIANGLE. Then based upon user's choice again ask the user to input dimensions of the selected figure. Finally display its area.

Qn2. Modify the vowel code, so that now your program display's either of the 3 messages: It is a vowel or It is a consonant or It is something else

Ternary Operator (Conditional Op)

?:

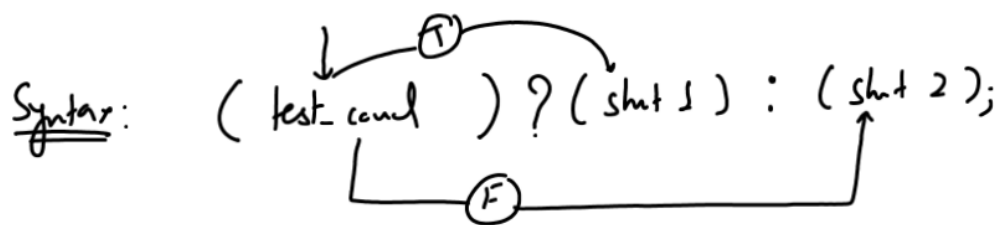
```
void main()
{
    int x, y, z;

    printf("Enter x:");
    scanf("%d", &x);
```

```
if (x >= 0)
{
    y = 1;
    z = 2;
}
else
{
    y = -1;
    z = -2;
}
```

Without
Ternary operator!

```
printf("%d %d %d", x, y, z);
getch();
}
```



ex $(x >= 0) ? (y = 1) : (y = -1);$

Points To Remember About Ternary Op

- ① $(x >= 0) ? (y = 1) ; X$
 $(x >= 0) ? (y = 1) : ; X$
- ② $(x >= 0) ? (y = 1) ; : (y = -1) ; X$
- ③ $()$ reqd on all 3 parts
- ④ $(x >= 0) ? (y = 1, z = 2) : (y = -1, z = -2);$

