C Switch

Topics : C
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The `switch` statement in C programming language allows us to select one of many code blocks to be executed based on the value of a variable or expression. The `switch` statement evaluates an expression and compares it with multiple constant values specified in the `case` labels. If the value of the expression matches any of the constant values, the corresponding code block is executed.

Here's the syntax of the `switch` statement in C programming language:

```
switch (expression) {
    case constant1:
        // code to be executed if expression == constant1
        break;
    case constant2:
        // code to be executed if expression == constant2
        break;
    .
    .
    .
    default:
        // code to be executed if expression does not match any of the
constants
        break;
}
```

The `expression` in the above syntax is any expression that evaluates to an integer value or a character. The `case` labels are the constant values that are compared with the value of the expression. The `default` case is executed if the value of the expression does not match any of the constants.

Here's an example of the `switch` statement in C programming language:

```
#include <stdio.h>

int main() {
    char grade = 'B';

    switch (grade) {
        case 'A':
```

```
        printf("Excellent\n");
        break;
    case 'B':
        printf("Good\n");
        break;
    case 'C':
        printf("Average\n");
        break;
    case 'D':
        printf("Below Average\n");
        break;
    case 'F':
        printf("Fail\n");
        break;
    default:
        printf("Invalid grade\n");
        break;
    }

    return 0;
}
```

In the above example, we have used the `switch` statement to check the value of the `grade` variable and print the corresponding message. If the value of `grade` is 'B', the code block associated with the `case 'B'` label is executed, and the output will be "Good".

Note that the `break` statement is used in each case block to terminate the `switch` statement. If the `break` statement is not used, the control will flow to the next case block and execute its code as well.