

# SWITCH STATEMENT IN JAVA

A **switch** statement allows a variable to be tested for equality against a list of values. Each value is called a case, and the variable being switched on is checked for each case.

## Syntax:

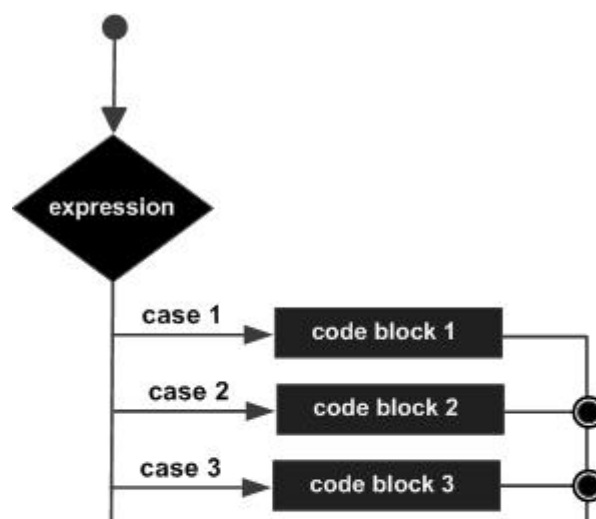
The syntax of enhanced for loop is:

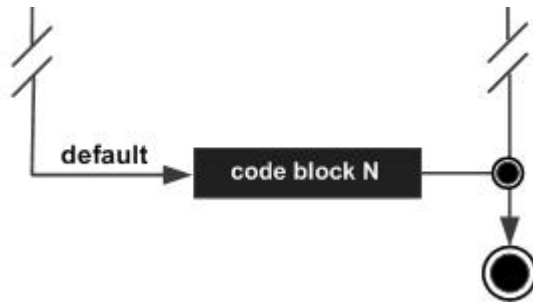
```
switch(expression){
  case value :
    //Statements
    break; //optional
  case value :
    //Statements
    break; //optional
  //You can have any number of case statements.
  default : //Optional
    //Statements
}
```

The following rules apply to a **switch** statement:

- The variable used in a switch statement can only be integers, convertible integers *byte, short, char*, strings and enums
- You can have any number of case statements within a switch. Each case is followed by the value to be compared to and a colon.
- The value for a case must be the same data type as the variable in the switch and it must be a constant or a literal.
- When the variable being switched on is equal to a case, the statements following that case will execute until a *break* statement is reached.
- When a *break* statement is reached, the switch terminates, and the flow of control jumps to the next line following the switch statement.
- Not every case needs to contain a break. If no break appears, the flow of control will *fall through* to subsequent cases until a break is reached.
- A *switch* statement can have an optional default case, which must appear at the end of the switch. The default case can be used for performing a task when none of the cases is true. No break is needed in the default case.

## Flow Diagram





## Example:

```
public class Test {  
  
    public static void main(String args[]){  
        //char grade = args[0].charAt(0);  
        char grade = 'C';  
  
        switch(grade)  
        {  
            case 'A' :  
                System.out.println("Excellent!");  
                break;  
            case 'B' :  
            case 'C' :  
                System.out.println("Well done");  
                break;  
            case 'D' :  
                System.out.println("You passed");  
            case 'F' :  
                System.out.println("Better try again");  
                break;  
            default :  
                System.out.println("Invalid grade");  
        }  
        System.out.println("Your grade is " + grade);  
    }  
}
```

Compile and run above program using various command line arguments. This would produce the following result:

```
$ java Test  
Well done  
Your grade is a C  
$
```

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