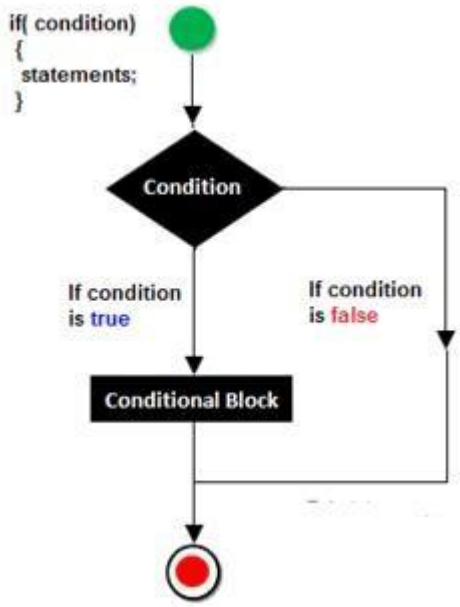
Decision Making/Selection Statements

Decision making statement statements is also called selection statement. That is depending on the condition block need to be executed or not which is decided by condition. If the condition is "true" statement block will be executed, if condition is "false" then statement block will not be executed. In java there are three types of decision making statement.

- if
- if-else
- switch

if-then Statement

if-then is most basic statement of Decision making statement. It tells to program to execute a certain part of code only if particular condition is true.



Syntex

If (condition){

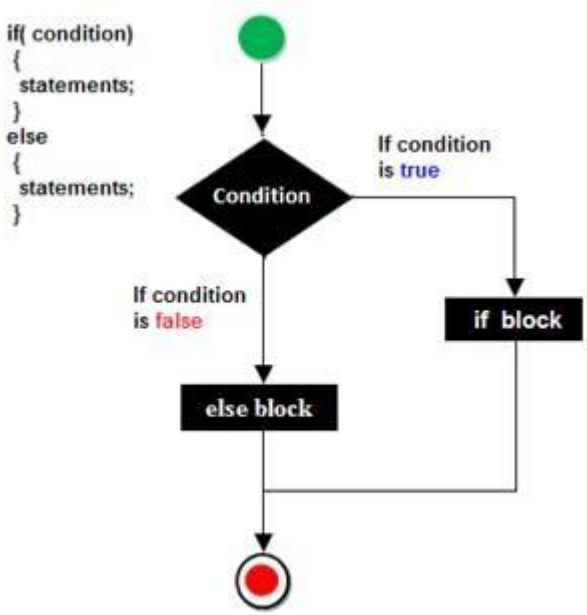
Statement(s)

}

Examples if Statement

```
Class Hello{

Int a=10’

Public static void main(String []args){

If(a<15){

System.out.println(“Hello Good Morning”);

}}}
```

Output Hello good morning
if-else statement
In general it can be used to execute one block of statement among two blocks, in javalanguage if and else are the keyword in java.



Syntax

```
if(condition)
 {
  Statement(s)
 }
 else
 {
  Statement(s)
 }
  ........
```

In the above syntax whenever condition is true all the if block statement are executed,remaining statement of the program by neglecting. If the condition is false else block statement executed and neglecting if block statements.

Example if else

```
import java.util.Scanner;
class Oddeven
{
public static void main(String[] args)
{
int no;
Scanner s=new Scanner(System.in);
System.out.println("Enter any number :");
no=s.nextInt();
if(no%2==0)
{
System.out.println("Even number");
}
else
{
System.out.println("Odd number");
}
}
}
```

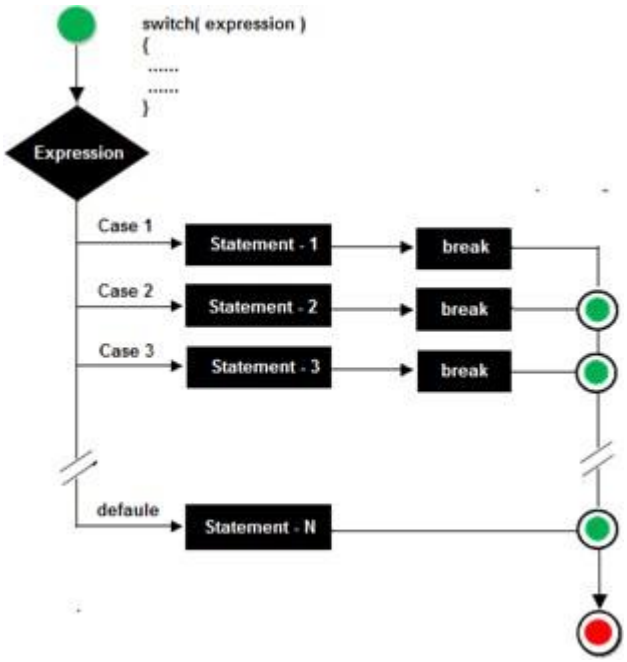
Output

```
Enter any number :
10
Even number
```

Switch Statement

The switch statement in java language is used to execute the code from multiple conditions or case. It is same like if else-if ladder statement.

A switch statement work with byte, short, char and int primitive data type, it also works with enumerated types and string.



Syntax

```
switch(expression/variable)
{
 case  value:
 //statements
 // any number of case statements
 break;  //optional
 default: //optional
 //statements
}
```

Rules for apply switch statement

With switch statement use only byte, short, int, char data type (float data type is not allowed). You can use any number of case statements within a switch. Value for a case must be same as the variable in switch.

Limitations of switch statement

Logical operators cannot be used with switch statement. For instance

Example

```
case k>=20: // not allowed
```

Example of switch case

```
import java.util.*;
```

```
class switchCase
{
public static void main(String arg[])
{
int ch;
System.out.println("Enter any
number (1 to 7) :");Scanner
s=new Scanner(System.in);
ch=s.nextInt();
switch(ch)
{
case  1:
System.out.println("T
oday is Monday");
break;
case  2:
System.out.println("T
oday is Tuesday");
break;
case  3:
System.out.println("Tod
ay is Wednesday");
break;
case  4:
System.out.println("To
day is Thursday");
break;
case  5:
System.out.println(
"Today is Friday");
break;
case  6:
System.out.println("T
oday is Saturday");
break;
case  7:
System.out.println("
Today is Sunday");
default:
System.out.println("Only enter value 1 to 7");
}
}
}
```

Output

```
Enter any number (1 to 7) :
5
Today is Friday
```