Selection Statements:

if

- ✓ We use **if** statement to test the **condition**.
- ✓ It checks Boolean **condition**: true or false.

```
if (expression) {
   // statements
}
```

- ✓ Here expression is a **Boolean Expression** (returns either true or false).
- ✓ If the expression is evaluated to **true**, statement(s) inside the body is executed.
- ✓ If the expression is evaluated to **false**, statement(s) inside the body of if are skipped from execution.

```
package com.dl.selectionstatements;

public class Eg1 {

public static void main(String[] args) {

if (true) {
System.out.println("Condition Checked"); // Condition Checked
}

System.out.println("Main Method"); // Main Method
}
}
```

```
package com.dl.selectionstatements;

public class Eg2 {

public static void main(String[] args) {

if (false) {
System.out.println("Condition Checked"); // Dead code
}

System.out.println("Main Method"); // Main Method
}
}
```

Selection Statements:

if...else

- ✓ The **if** statement executes a certain section of code if the test **expression** is evaluated to **true**..
- ✓ The **if** statement may have an optional **else** block.
- ✓ Statements inside the body of **else** statement are executed if the test expression is evaluated to **false**

```
if (expression) {
  // codes
}
else {
 // some other code
}
```

```java
package com.dl.selectionstatements;

//if else
public class Eg3 {

public static void main(String[] args) {

int a = 10, b = 20;
if (a < b) {
System.out.println("Condition Checked"); //Condition Checked
}else {
System.out.println("Condition Failed");
}
}
}
```

Selection Statements:

Java if..else..if.. else Statement

In Java, it's possible to execute one block of code among many.
For that, you can use if..else...if ladder.

```
if (expression1)
{
  // codes
}
else if(expression2)
{
  // codes
}
else if (expression3)
{
  // codes
}
.
.
else
{
  // codes
}
```

```
package com.dl.selectionstatements;
//else if
public class Eg4 {
public static void main(String[] args) {

float userSalary = 30000f;
if (userSalary==10000){
System.out.println(userSalary);
}
else if (userSalary == 20000){
System.out.println(userSalary);
}
else if (userSalary == 30000){
System.out.println(userSalary); // 30000.0
}
else if (userSalary == 40000){
System.out.println(userSalary);
} else {
System.out.println("Salary is out of range");
}
}
}
```

✓The **if statements** are executed from the **top towards** the **bottom**.

✓As soon as the test expression is **true**, code inside the body of that if statement is executed.

✓Then, the control of program jumps outside **if-else-if** ladder.

✓If all test expressions are **false**, codes inside the body of **else** is executed.

Java Switch Statement

1. The **switch** statement executes all statements of the matching **case label**.
2. Inside switch case it is possible to take any number of **cases** but it is possible to declare only **one default**.
3. In **switch** we can allow the arguments like **Byte, Short, Int, Char, String**
4. **Float, Double and Long** is not allowed for a **switch** argument because these are having more number of possibilities.
5. If the **case** is matched then the **case** will be executed if the **case** is not matched **default** case is executed.

```
switch (variable/expression) {
case value1:
  // statements
  break;
case value2:
  // statements
  break;
  .. .. ...
  .. .. ...
default:
  // statements
}
```

```java
package com.dl.selectionstatements;

//switch case without break
public class Eg5 {
public static void main(String[] args) {

int a = 20;
switch (a) {
case 10: {
System.out.println("Case 10");
}
case 20: {
System.out.println("Case 20");
}
case 30: {
System.out.println("Case 30");
}
default:
System.out.println("Default Case");
}
}
}
```

```
Case 20
Case 30
Default Case
```

```java
package com.dl.selectionstatements;

// switch case with out break
public class Eg6 {
public static void main(String[] args) {

int a = 40;
switch (a) {
case 10: {
System.out.println("Case 10");
}
case 20 + 20: {
System.out.println("Case 40");
}
case 30: {
System.out.println("Case 30");
}
default:
System.out.println("Default Case");
}
}
}
```

```
Case 40
Case 30
Default Case
```

```java
package com.dl.selectionstatements;

//switch case with break
public class Eg7 {
public static void main(String[] args) {

String s1 = "domiar";
switch (s1) {
case "domiar":
System.out.println("400 CC"); //400 CC
break;
case "beneli":
System.out.println("600 CC");
break;
default:
System.out.println("Default Case");
break;
}
}
}
```