

## \* Conditional Constructs:

It is all about decision making.

## \* Logic Conditions from mathematics:

- (i) Less than ( $a < b$ )
- (ii) Less than or equal to ( $a \leq b$ )
- (iii) Greater than:  $a > b$
- (iv) Greater than or equal to ( $a \geq b$ )
- (v) Equal to ( $a = b$ )
- (vi) Not equal ( $a \neq b$ )

## \* Java has the following Conditional Statements:

### (i) if:

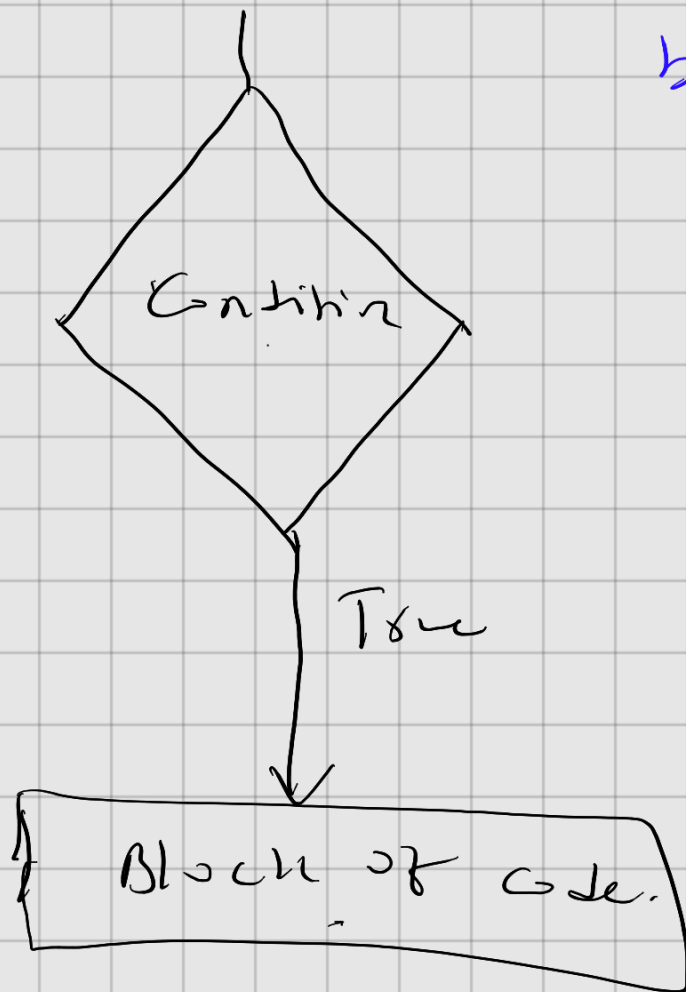
#### Syntax:

```
if (condition)
{
    // block of code.
}
```

eg: 

```
if (20 > 25)
{
    S.O.P("20 is greater than 25")
}
```

Flow Chart:



$a = 25$

$b = 26$

$25 > 26$

② if else:

Syntax:

```
if (Condition)
{
```

```
    // Code to be executed
```

```
}
```

```
else
```

```
{
```

```
    // Code to be executed
```

```
}
```

Ex:

a = 25;

b = 26;

25 > 26.

if(a > b)

{

S.o.p("a is greater");

&

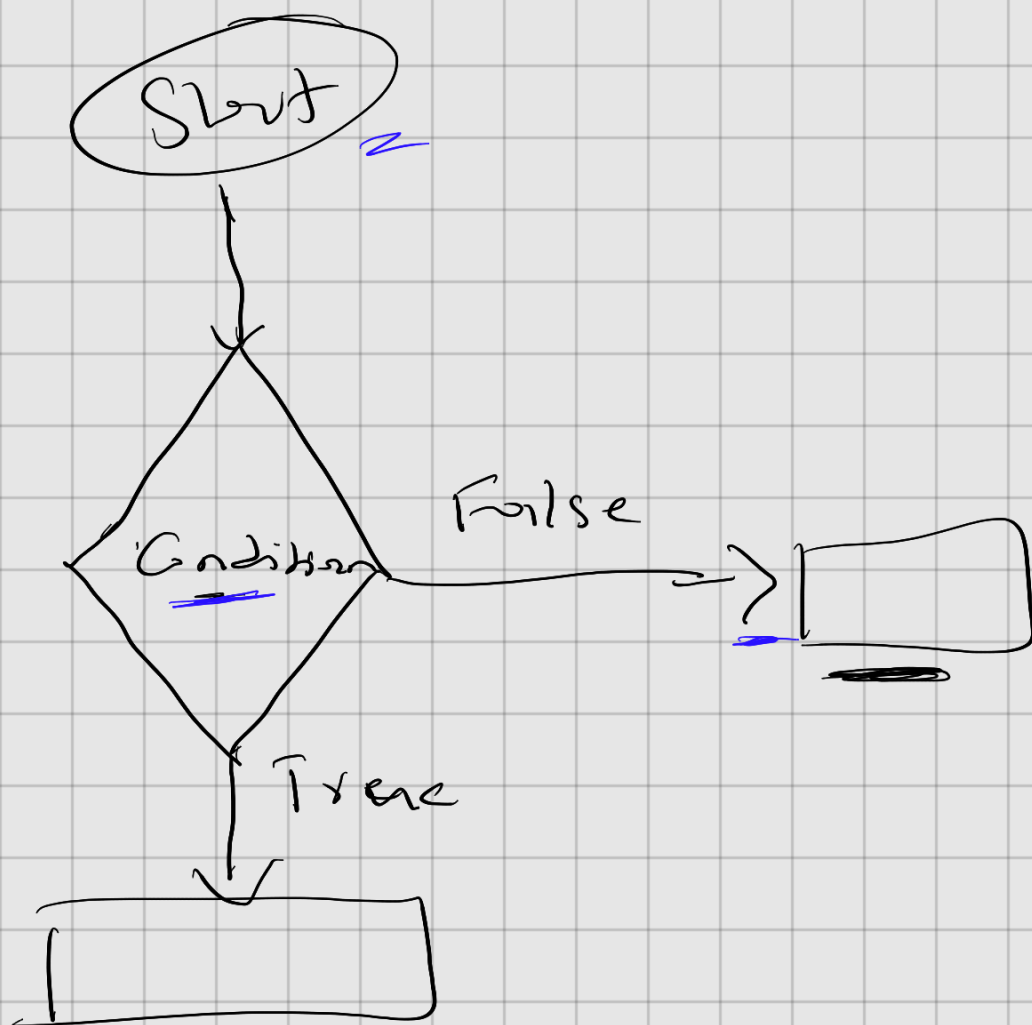
else

{

S.o.p("b is greater");

}

Flow Chart;



(iii) else if: else if ladder.

Syntax:

```
if (condition)
{
    // code block.
}
else if (condition)
{
    // code block.
}
else
{
    // code block.
}
```

Ex:

= Good morning  
= Good Day  
= Good Evening

24 hours:

00:00  
12:00 AM ~~~~~ 9:00 AM  
10:00 AM - - - - - 5:00 PM  
5:00 PM - - - - - 11:59 PM  
002  
Evening

Code:

```
int time = 20;  
if (time < 10)  
{  
    s.o.p("Good morning")  
}  
else if (time <= 17)  
{  
    s.o.p("Good Day");  
}  
else  
{  
    s.o.p("Good Evening");  
}
```

⊛ nested if, nested if else,  
nested else if:

```
int a = 10;  
int b = 15;  
if (a == 10)  
{  
    if (b == 15)  
    {  
        s.o.p("Hello");  
    }  
}
```

