

Control statements enable us to specify the flow of program control; ie, the order in which the instructions in a program must be executed. They make it possible to make decisions, to perform tasks repeatedly or to jump from one section of code to another.

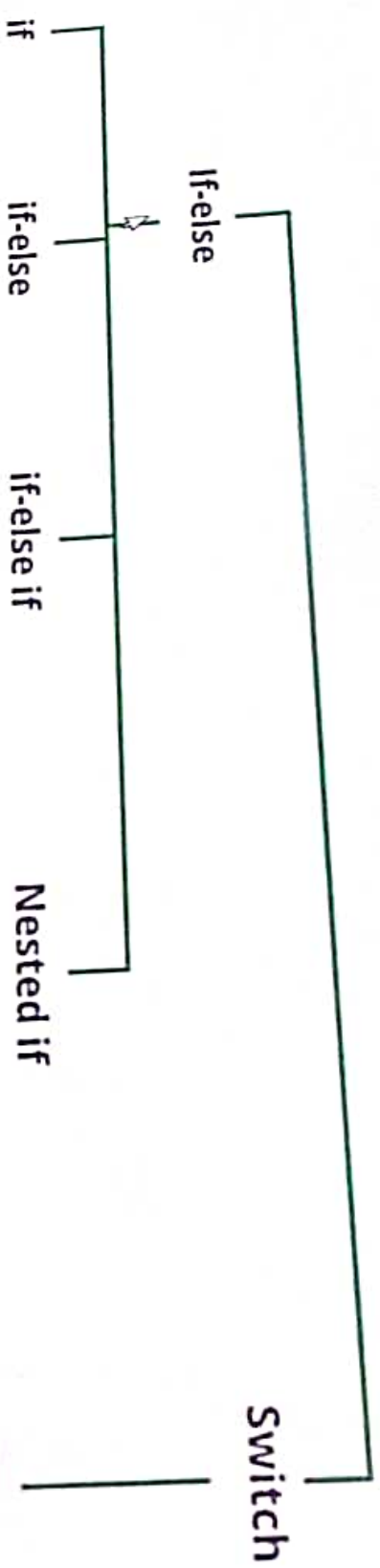
There are two types of control statements:

- Selection Statements
- Iteration statements
- Transfer statements

There come situations in real life when we need to make some decisions and based on these decisions, we decide what should we do next. Similar situations arise in programming also where we need to make some decisions and based on these decisions we will execute the next block of code.

Selection statement/Decision making statements in programming languages decides the direction of flow of program execution.

Decision Making



```
if( condition )  
{  
    //true  
}
```

```
if( condition )  
{  
    //true  
}  
else  
{  
    //false  
}
```

```
if( condition 1 )  
{  
    //true  
}  
else if( condition 2 )  
{  
    //true  
}  
else  
{  
}
```

```
if( condition 1 )  
{  
    if( condition )  
    {  
        //true  
    }  
    else  
    {  
        //false  
    }  
}  
else  
{  
    if( condition )  
    {  
        //true  
    }  
    else  
    {  
        //false  
    }  
}
```

```
switch( expression )  
{  
    case 1:  
        break;  
    case 2:  
        break;  
    case 3:  
        break;  
    default;  
}
```


Program to check largest number among three number.

```
class Pro
{
    public static void main(String args[])    {
        int a=3,b=7,c=22,big;
        if(a>b)    {
            if(a>c)
                big=a;
            else
                big=c;
        }
        else    {
            if(b>c)
                big=b;
            else
                big=c;
        }
        System.out.println("Big value is "+big);
    }
}
```

Switch case is the multiple choice statement and a substitute for if else ladder

Syntax:

```
switch (n) {  
    case 1: // code to be executed if n = 1;  
        break;  
    case 2: // code to be executed if n = 2;  
        break;  
    case 3: // code to be executed if n = 3;  
        break;  
    default: // executed if n doesn't match any cases  
}
```

Rules for switch case:

- Switch is taking the argument, the allowed arguments are byte, short, int, char (primitive data types)
Byte, Short, Integer, Character(wrapper classes)
String

- Inside the switch it is possible to declare more than one case but it is possible to declare only one default statement
- float, double, long are not allowed as a switch argument because these are having too large values
- Inside the switch statement **break**, **default** and **case** are optional
- Inside the switch the case labels must be unique

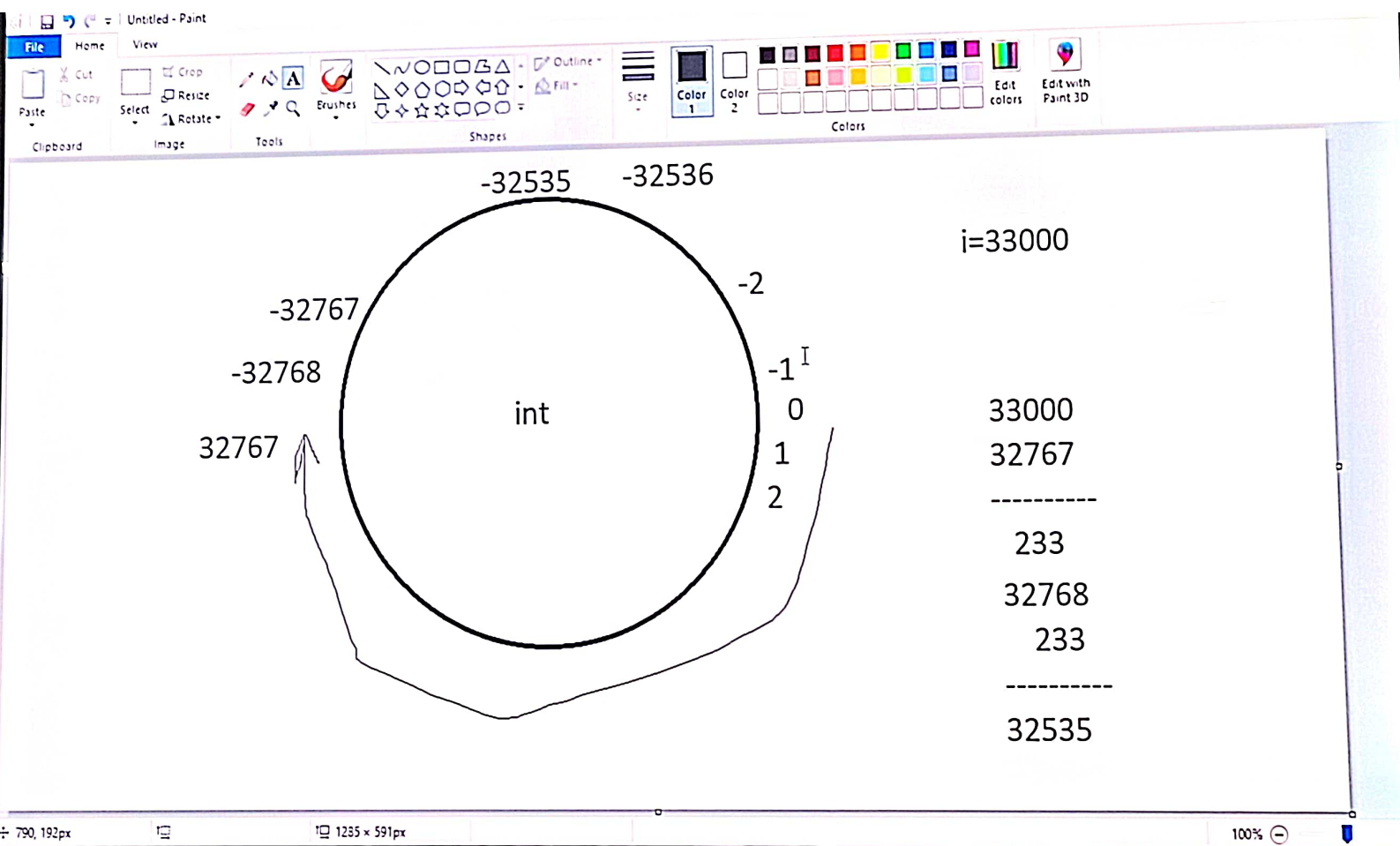
It is used to execute group of statement repeatedly till the condition satisfy.

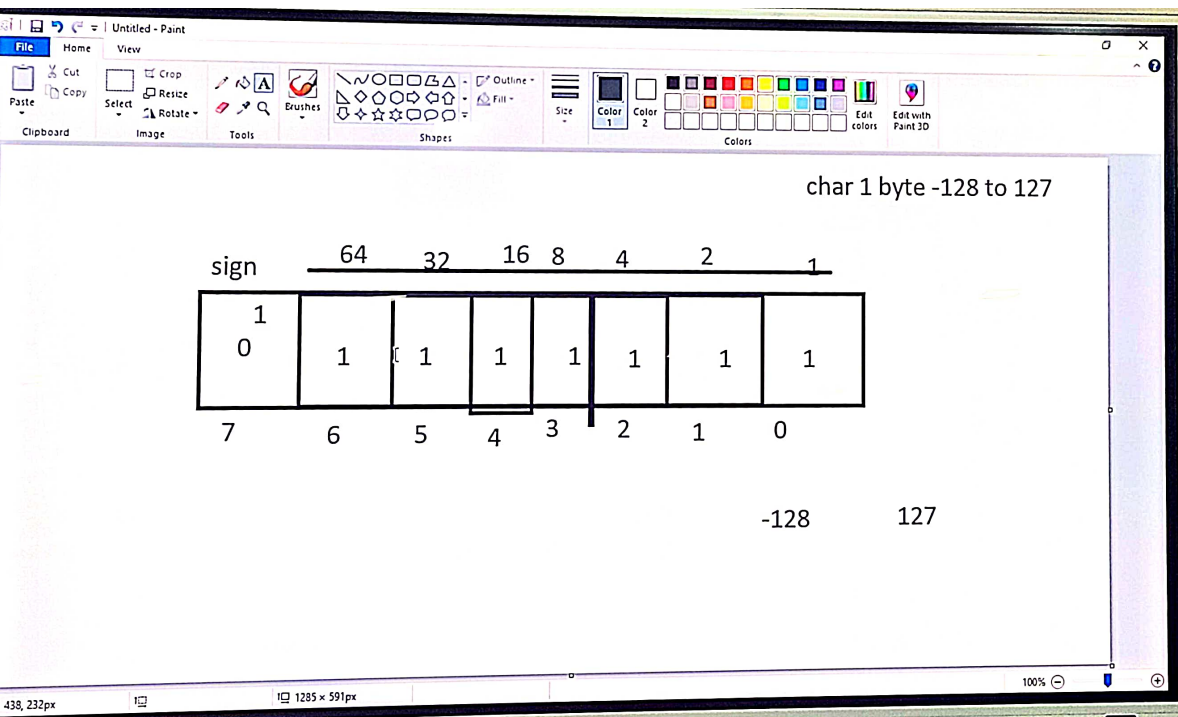
Java support four types of looping statement.

1. while loop
2. do while loop
3. for loop
4. for each loop

Basically in looping statement three things are included and that are most important .

1. initialization
2. condition
3. updation





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