

-! Loops (Iterative Statement) :-

Entry Controlled loop

a). while

b). for

Exit Control loop

a) do... while

a) while :-

Syntax :-

while (test condition)

{

≡

}

Boolean expression
(true, false)

Example

```
int i = 1
```

```
while (i <= 10)
```

```
{
```

```
    System.out.println(i);
```

```
    i++;
```

```
}
```

WAP to take a ^{number} input from user and print factorial of that Number

```
int n, fact = 1;
System.out.println("Enter a No.");
n = kb.nextInt();
while (n > 1)
{
    fact = fact * n;
    n--;
}
System.out.println(fact);
}
```

for loop:-

Syntax:-

~~X~~ $\text{for}(\text{int } i=1 ; i \leq 10, i++)$ $\text{int } i;$ Solution

$\{$
 $\text{SOP}(i);$
 $\}$
 $\text{SOP}(+i)$

X

$\text{for}(\text{int } i=1 ; i \leq 10; i++)$
 $\{$
 $\text{SOP}(i);$
 $\}$
 $\text{SOP}(+i);$

declaration bahar करना होगा loop

मे अन्दर declare करने से तो local variable बन जाता है, इसलिए loop

मे bahar declare करना चाहिए

WAP to accept two Integer from the User and display their Sum. Now ask the User whether he/she wants to Continue or Not. If the Answer is yes then again Repeat the process otherwise terminate the program displaying msg "Thank you"

```
import java.util.Scanner;
```

```
public class Main
```

```
{
```

```
    public static void main (String args[])
```

```
    {
```

```
        Scanner sc = new Scanner (System.in);
```

```
        String c = "yes";
```

```
        while (c.equalsIgnoreCase("yes"))
```

```
        {
```

```
            System.out.println ("Enter first Number");
```

```
            int first = sc.nextInt();
```

```
            System.out.println ("Enter second Number");
```

```
            int Sec = sc.nextInt();
```

```
            int Sum = first + Sec;
```

```
            System.out.println ("The Sum is: " + Sum);
```

```
            System.out.println ("You want to Continue or Not?");
```

```
            c = sc.next();
```

```
}
```

```
}
```

Nested loop

→ label

bhopal: ←

```
for (int ; testCond. ; Statement)
```

```
{
```

```
for (initial ; testCond ; Statement)
```

```
{
```

```
for (inti ; testCondition ; Statement)
```

```
{
```

```
if (test Condition)
```

if 2दा से ज़ादे loop से बाहर

निकला है तो use

```
break bhopal;
```

★ label is used to बाहर निकलने पूरे loop से

label :-

Name : → label

```
break label;
```