Loops

*) Loops

→ It is used to Perform some set of actions repeatedly.

→ If we have to use any Loop then it should have 3- important things.

1) Initialization → starting point
2) Condition → Ending point
3) Updation → It is use to count the number of interaction (updation)

#) Types of Loops:

1) while Loop → Range X
2) do while Loop → Range X (but min once)
3) for Loop → Range ✓

1) while Loop

syntax:→

```
Initialization ;
while ( Condition )
{
    statements ; (S.o.p)
    updation ;
}
```

2] do while loop

syntax :→

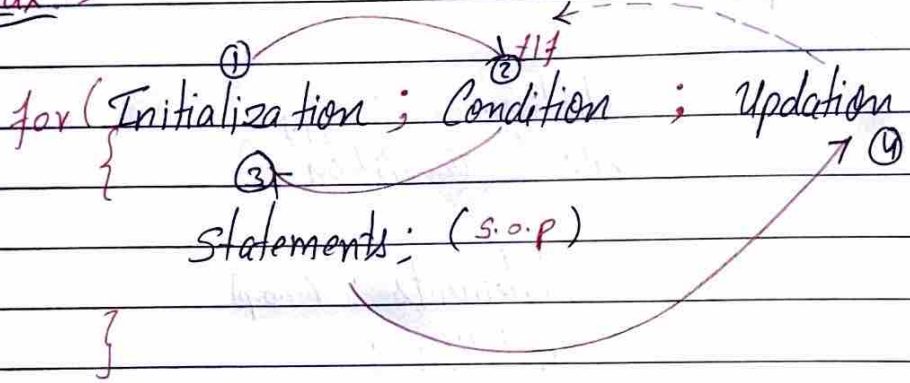
```
Initialization ;
do
{
    statements ; (s.o.p)
    updation ;
}
while ( Condition );
        ↓↑ → stop
```

Note :→

→ In do while loop if Condition false the Printing statement executed atleast once time.

3] for Loop

syntax :→



Program 1 →

i) WAP to Print 1 to 5 using while loop.

Ans.
```
class P1 {
public static void main (String [] args ) {
        int n = 1 ;

        while ( n <= 6 )
        {
            System.out.println (n);
            n++ ;
        }
    }
}
```

o/p: →
1
2
3
4
5

2] WAP to find odd Number between 1 to 5.

Ans.

```
class P2 {
public static void main(String[] args) {
        int n = 1;

        while (n <=5)
        {
          if ( n%2 == 1 )
          {
            System.out.println (n);
          }
          n++;
        }
    }
}
```

O/P:→ 1
3
5

3] WAP to add number from 1 to 5.

Ans.

```
class P3 {
public static void main (String[] args) {
    int n = 1;
    int sum = 0;

    while (n<=5)
    {
        sum = sum + n;
        n++;
    }
        System.out.println (sum);
    }
}
```

O/P :→ 15

Q] do while loop

Q] WAP to Println 1 to 5 using do while.

Ans.

```
class P4 {
public static void main (String [] args) {
        int n = 1;

        do
        {
            system.out.println(n);
            n++;
        }
        while ( n<=5 );
    }
}
```

O/P:->
1
2
3
4
5

3] for loop

5] WAP to Println 1 to 5 using for loop.

Ans.

```
class P5 {
public static void main(String[] args) {
        int n=1;

        for(int i=1; n<=5; n++)
        {
            System.out.println(n);
        }
    }
}
```

O/P:→
1
2
3
4
5

5] WAP to Create a 9 Table.

Ans.

```
class P6 {
public static void main (String [] args) {
        int n = 9

    for( int i=1; i<=10; i++ )
    {
        System.out.println(n+"*"+i+"="+(n*i));
    }
}
}
```

O/P:→
9 * 1 = 9
9 * 2 = 18
9 * 3 = 27
9 * 4 = 36
9 * 5 = 45
9 * 6 = 54
9 * 7 = 63
9 * 8 = 72
9 * 9 = 81
9 * 10 = 90