

Looping Statements

for loop

" allows you to execute a block of code repeatedly for a specific number of iterations.

Use → iterate over numbers, Array, collection. etc.
String

Syntax

	<u>Start</u>	<u>End</u>
	↓	↓
for(initialization; termination; increment/decrement) {		
// code to be executed		
}		

print no's from 1 to 5.

#code

```
for(int i=1; i<=5; i++){  
    cout<<i;<<endl;  
}
```

↓ o/p

1

2

3

4

5

Expl.ⁿ → int i = 1 initializes ^{start} the loop variable i to 1.
→ i <= 5 is the termination/stop condition, which means the loop will continue as long as i is less than or equal to 5.
→ i++ increments the loop variable i by 1

after each iteration.

→ `System.out.println(i)` prints the current value of `i` to the console.

print no's from 5 to 1 \Rightarrow 5 4 3 2 1.

code

```
for (int i=5; i>=1; i--) {
    System.out.println(i);
}
```

↓ o/p

5

4

3

2

1

↑ start

Exp 1 :- → `int i=5` initializes the loop variable `i` to 5.

→ `i>=1` is the termination/stop condition, which means the loop will continue as long as `i` is greater than or equal to 1.

→ `i--` decrements the loop variable `i` by 1 after each iteration.

→ `System.out.println(i)` prints the current value of `i` to the console.