

For Loop in Java

“A SIMPLE GUIDE TO REPETITION AND CONTROL IN
PROGRAMMING”

Introduction to Loops

Loops are used to execute a block of code multiple times.

❑ *Three main types of loops in Java:*

- I. for loop
- II. while loop
- III. do-while loop

What is a For Loop ?

- A for loop is a control flow statement that repeats a block of code a specific number of times
- Best when the number of iterations is known.

Syntax of a For Loop

```
for (initialization; condition; update) {  
    // Code to be executed  
}
```

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

working

- ❑ **Initialization** – *sets a starting point.*
- ❑ **Condition** – *checked before each loop iteration.*
- ❑ **Update** – *modifies the loop variable.*
- ❑ **Loop continues until the condition is false.**

Examples

```
String[] days = {"Mon", "Tue", "Wed", "Thu", "Fri"};  
for (int i = 0; i < days.length; i++) {  
    System.out.println(days[i]);  
}
```

Real-Time Examples

- Alarm Clock: *Beep 5 times → use for loop.*
- Vending Machine: *Display item numbers.*
- Attendance System: *Loop through student list.*



Thanks