

1. There are 3 loops Java provides.

- a. for
- b. while
- c. do-while

<https://www.scaler.com/topics/java/loops-in-java/>

2. Syntax for while loop

- a. while (expression) {
code block;
}
- b. Used to provide one or more condition/actions that can be repeated until a termination condition is met

c. `int x = 0;`

```
while (x < 9){  
  
    System.out.println(x);  
  
    x++;  
  
}
```

3. For loop

- a. for (Variable; Condition; Action){
code block;
}
- b. A simple loop when there is only one condition/action and an exact number of loops will run

c. `int maxNum = 100;`

```
for (int b = 0; b <= maxNum; b++) {  
  
    System.out.println(b);  
  
}
```

4. do-while

- a. do {

```
    // Condition (Statement(s))
```

```
    // Action;
```

```
}
```

```
while(Test Expression);
```

b. Used same as a while loop except the loop is executed once providing an output on first run.

c. `int y = 0;`

```
do {  
    if (y % 2 == 0) {  
        System.out.println("EVEN");  
    } else {  
        System.out.println("ODD");  
    }  
    y++;  
} while (y <= 100);
```

5. learning about the other loop functions for, do-while are new to me.