

## Research:

Url: <https://www.developer.com/design/using-different-types-of-java-loops-looping-in-java/>

1. What are the different loops Java provides us with?
2. What is the syntax of one of the loops in your above answer? How and when should you use this loop? Give an example.
3. What is the syntax of another one of the loops in your above answer? How and when should you use this loop? Give an example.
4. What is the syntax of another one of the loops in your above answer? How and when should you use this loop? Give an example.

There are three different types of loops in java, the while, for, and do while loops.

The while loop is a statement that runs indefinitely until the condition given is false. Used when we don't have a specific amount of times to run the loop.

**Example:** `int x = 1`

```
while (x <= 10) {  
  
    System.out.println(x);  
  
    x++;  
  
}
```

The for loop is similar to the while loop but the for loop states how many times the loop will be running until. This is done in the condition. This condition is used when we have a specific amount of times, we need to run the loop.

**Example:** `int x = 1`

```
for (int i = 1; i <= 10; i++) {  
  
    System.out.println(x*2);  
  
}
```

The do while loop is similar to while but the condition is ran after the loop is ran once. Is used when we are trying to run the loop at least once.

**Example:** `int x = 1`

```
do {  
  
    System.out.println(x*2);  
  
} while (x == 1);
```