Java Break and Continue

Java Break

Break statements are generally used when we are unsure of the precise number of loop iterations or when we want to end the loop based on a condition.

Sample Code

```java
for (int i = 0; i < 10; i++) {

  if (i == 5) {

    break;

  }

  System.out.println(i);

}
```

Output

```
0

1

2

3

4
```

Sample Code 1.1

```java
import java.util.Scanner;

class UserInputSum {
  public static void main(String[] args) {

    Double number, sum = 0.0;

    // create an object of Scanner
    Scanner input = new Scanner(System.in);

    while (true) {
```

```java
        System.out.print("Enter a number: ");

        // takes double input from user
        number = input.nextDouble();

        // if number is negative the loop terminates
        if (number < 0.0) {
            break;
        }

        sum += number;
    }
    System.out.println("Sum = " + sum);
  }
}
```

Output

```
Enter a number: 3.2
Enter a number: 5
Enter a number: 2.3
Enter a number: 0
Enter a number: -4.5
Sum = 10.5
```

Java Continue

We use continue statements when we want to continue the loop but do not want the statement that follows the continue statement.

Sample Code

```java
for (int i = 0; i < 8; i++) {

  if (i == 6) {

    continue;

  }

  System.out.println(i);
```

```
}
```

Output

```
0
1
2
3
4
5
7
```

Sample Code 1.1

```java
class Main {
  public static void main(String[] args) {

    // for loop
    for (int i = 1; i <= 10; ++i) {

      // if value of i is between 4 and 9
      // continue is executed
      if (i > 4 && i < 9) {
        continue;
      }
      System.out.println(i);
    }
  }
}
```

Output

```
1
2
3
4
9
10
```

Break and Continue in While Loop

Sample Code (Break)

```java
int i = 0;
while (i < 10) {
  System.out.println(i);
  i++;
  if (i == 4) {
    break;
  }
}
```

Output

```
0
1
2
3
```

Sample Code (Continue)

```java
int i = 0;
while (i < 10) {
  if (i == 4) {
    i++;
    continue;
  }
  System.out.println(i);
  i++;
```

```
}
```

Output

```
0
1
2
3
5
6
7
8
9
```

References

- https://www.geeksforgeeks.org/break-and-continue-statement-in-java/
- https://www.programiz.com/java-programming/continue-statement
- https://www.w3schools.com/java/java_break.asp