**Difference between (While and do while with example)**

**WHILE LOOP**

A while loop is a control flow statement that allows code to be executed repeatedly based on a given Boolean condition. The while loop can be thought of as a repeating if statement.

**Syntax**

While (Boolean condition)

{

Loop statements...

}

| **while** | **do-while** |
| --- | --- |
| Condition is checked first then statement(s) is executed. | Statement(s) is executed at least once, thereafter condition is checked. |
| It might occur statement(s) is executed zero times, If condition is false. | At least once the statement(s) is executed. |
| No semicolon at the end of while. while(condition) | Semicolon at the end of while. while(condition); |
| If there is a single statement, brackets are not required. | Brackets are always required. |
| Variable in condition is initialized before the execution of loop. | Variable may be initialized before or within the loop. |
| While loop is entry controlled loop. | Do-while loop is exit controlled loop. |
| while(condition) { statement(s); } | do { statement(s); } while(condition); |

**Getter and Setter Method in Java Example**

Getter and setter methods are frequently used in Java programming. **Getter and setter methods in Java** are widely used to access and manipulate the values of class fields. Usually, class fields are decorated with a private access specifier. Thus, to access them, public access specifiers are used with the getter and setter methods.

## **The Need of Getter and Setter Method**

One may argue that declare the class fields as public and remove the getter and setter methods. However, such a coding style is bad, and one may put some absurd value on the class fields

# Access Modifiers in Java

There are two types of modifiers in Java: **access modifiers** and **non-access modifiers**.

The access modifiers in Java specifies the accessibility or scope of a field, method, constructor, or class. We can change the access level of fields, constructors, methods, and class by applying the access modifier on it.

There are four types of Java access modifiers:

1. **Private**: The access level of a private modifier is only within the class. It cannot be accessed from outside the class.
2. **Default**: The access level of a default modifier is only within the package. It cannot be accessed from outside the package. If you do not specify any access level, it will be the default.
3. **Protected**: The access level of a protected modifier is within the package and outside the package through child class. If you do not make the child class, it cannot be accessed from outside the package.
4. **Public**: The access level of a public modifier is everywhere. It can be accessed from within the class, outside the class, within the package and outside the package.