

Variables

What is a Variable?

In computer science, we often need to use data. **Variables** are used to store a value.

Each variable in Java has:

1. a data type
2. a name
3. a value

We will discuss each of these parts over the rest of this reading assignment.

Three actions for variables

There are a few different actions taken involving variables:

1. **declaring** - when you set or declare the *data type* and *name* of the variable. These two pieces of a variable do *not* change.
2. **assigning** - when you set the *value* of the variable. The value of a variable *can* change.
3. **accessing** - when you retrieve the *value* of the variable by calling its *name*.

You *must* declare and assign a variable before you can access it.

Take a look at the visualizer on the left to see an example of how this works.

Variables - Reading Question 1

Which parts of a variable do *not* change in Java?

- data type
- name
- value

For each variable, the data type and name of the variable *never* change. The value can be re-assigned as many times as you want!