

Declaring Variables

Declaring a Variable

Declaring a variable has two parts - setting or declaring the *data type* and the *name* of the variable. These two pieces of a variable do *not* change.

To declare a variable, type the data type and name of the variable you want to create, and `;` (semi-colon).

```
String my_variable;
```

You will notice we are not printing anything - that is because no value has been assigned yet. The declaration step sets aside empty memory.

TRY IT

Command was successfully executed.

What happens if you:

- Create two variables with the same name?
- Create two variables with the same name but different capitalization (ie `var` and `Var`)?
- Create two variables of different types with the same name?

TRY IT

Command was successfully executed.

Variable Naming Rules

Here are the rules for naming a variable.

Rule	Correct	Incorrect
Start with a letter, dollar sign or underscore	<code>variable</code> , <code>\$variable</code> , <code>_variable</code>	<code>1variable</code>
Remainder of variable name is letters, numbers, or underscores	<code>var_i_able</code> , <code>var1able</code>	<code>var-i-able</code> , <code>var!able</code>
Cannot use a Java keyword	<code>my_class</code>	<code>class</code>
Variables are case sensitive	<code>variable</code> , <code>Variable</code> , and <code>VARIABLE</code> are all different variables	

► What are the Java key words?

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Which of the following code snippets contain correct variable declarations?

- ☐ `int var;`
`String var;`
- ☐ `String var;`
`String var;`
- ☐ `String var;`
`int var 2;`
- ☒ `String var;`
`int Var;`

Java does not allow different variables to have the same name - regardless of data type.

Additionally, Java does not allow spaces in variable names - either user `camelCase` or `snake_case` to separate words.

Since Java variables are case sensitive, `var` and `Var` are different variables.