## What is an array?

In programing, an array is a container object that that holds values of single datatypes, that holds a specific number of values.

- We create an array by first stating its datatype, then we name the array, then we define the datatype object with the number of values it will be holding.
- The length of the array can be received by stating .length of the array object.

```
String[] array = new String[5];
```

In this specific example we declare the array to contain Strings. This means that the array can only hold strings. And the length of the array is 10.

## How do Arrays hold values?

Arrays hold values by storing each data into separate locations within the array. So for example if we state that:

```
array[0] = "zero";
array[1] = "one";
array[2] = "two";
array[3] = "three";
array[4] = "four";
```

Then the array stores the values as follows:

0	1	2	3	4
zero	one	two	three	four

## How to fill out an array simply?

The way we would fill out an array for user input for example, is that we would have a for loop that goes from 0 to the length of the array, where for each i value you take the user of the input.

```
for(int i = 0; i < words.length; i++)
{
    words[i] = dS.next();
}</pre>
```

## How to print out an array?

The way we would print an array is by using an enhanced for loop where we create a new string, and print out every single character one by one.

```
for(String str : words)
{
    System.out.println(str);
}
```