

Lesson 23:

One-Dimensional Arrays

One-Dimensional Arrays

Object

In Java, an **object** is a variable of a class type.

It can hold lots of data and has methods.

It is different than a primitive type.

One-Dimensional Arrays

Arrays are objects

An array is an **object** that holds more than one thing in memory.

All items in the array are the same data type.

Arrays can hold primitive types or class types.

One-Dimensional Arrays

To create:

This creates an array called list of 7 integers.

Use the **new** command - this is what stores the reference to where the data is in memory.

One-Dimensional Arrays

new

This is a Java command.

It creates a new **reference** – this is when Java stores the memory address in the variable.

We used this with Scanner.

String is the one class that doesn't use it.

One-Dimensional Arrays

Vocabulary

element – The box of the array. Each box holds a value. All values are the same data type.

index –The address of the elements. Starts at 0 and ends at (length -1).

initialize – Stores known values in an array.

One-Dimensional Arrays

To create:



Why does it stop at 6 if there are 7 boxes?

Indexes start at 0 and go to (length -1).

One-Dimensional Arrays

Example:



One-Dimensional Arrays

Initializer Lists

Automatically sets the values in an array.

Java sets the size based on the number of elements given.