ArrayList
Ch 7.3

[“Hip”, “Hip”]

Hip Hip Array
Highlights

- ArrayList

ArrayList<String> stuff = new ArrayList<String>();
ArrayList

One of the shortcoming of arrays is that their size is fixed once you make them: you cannot add more or more any

ArrayList is a nice pre-built class that allows for an “array” to grow and shrink

However, it does have its own limitations... (more on that shortly)
To make an ArrayList, you must first import:

```java
import java.util.ArrayList;
```

To make a normal array of Strings, you do:

```java
String[] sentence = new String[10];
```

As an ArrayList:

```java
ArrayList<String> stuff = new ArrayList<>();
```
At this point you can use them very similarly to normal arrays:

```java
sentence[0] = "hi";
stuff.add(0, "hi");

System.out.println(sentence[0]);
System.out.println(stuff.get(0));
```

(See: ArrayListExample.java)
ArrayList

There are a few shortcomings of ArrayLists:
1. The type inside the <> must be a class
   You cannot make an ArrayList<int>, but you can do ArrayList<Integer>

2. Removing things from ArrayLists in a loop is difficult (See: ArrayListLoop.java)

3. 2D ArrayLists are mouthfuls (See: ArrayList2D.java)