```
/*****************************************************************
Arrays
*****************************************************************/
String [] soup = {"Broth", "Potato", "Carrots", "Celery"};

// Iterating Through An Array:
for (int i=0; i < soup.length; i++) {
        System.out.println(soup[i]);
}

// Printing out one element by index (in this case the second):
String secondElement = soup[1];
System.out.println(secondElement);

// Array to list conversion:
List<String> soupList = Arrays.asList(soup);

/*****************************************************************
Lists
*****************************************************************/

// 1.Instantiate a list:
List<String> soupList = new ArrayList<String>();

// 2. Adding things to the list:
soupList.add("Broth");
soupList.add("Potato");
soupList.add("Carrots");
soupList.add("Celery");

// 3.Iterating using a traditional for loop:
for (int i=0; i < soupList.size(); i++) {
        System.out.println(soupList.get(i));
}

// 4.Obtaining one element by index (in this case the second):
String secondListElement = soupList.get(1);
System.out.println(secondListElement);

// 5.Remove an item, in this case celery
soupList.remove(3);

// 6.Convert a list to a string array:
// Shortcut
String[] soupListArr = soupList.toArray(new String[0]);
```

```
/*****************************************
Maps
*****************************************/

// 1. Instantiate a map
Map<String, String> employees = new HashMap<String, String>();

// 2. Add things to the map.
employees.put("a-100-100", "Alice");
employees.put("a-100-200", "Bob");
employees.put("a-100-300", "Carole");
employees.put("a-100-400", "David");

// 3. Obtain a value through a key
String employee = employees.get("a-100-400");
System.out.println(employee);
//David

// 4. Verify if a key value pair exists, using the key
boolean employeeExists = employees.containsKey("b-100-001");
System.out.println(employeeExists);
//false

// 5. Remove a key value pair, by key
employees.remove("a-100-400");
// David has been removed.
System.out.println(employees);

// 6. Iterate through a map using an entry set
for (Map.Entry<String, String> emp : employees.entrySet()) {
	System.out.println(emp.getKey());
	System.out.println(emp.getValue());
}

// 7. Iterate using a key set:
// The data type of the set must match the data type of the
// map's key.

Set<String> keys = employees.keySet();
for (String key : keys) {
	System.out.println(key);
	System.out.println(employees.get(key));
}
```