One Layer Deeper

Looking at arrays

Shopping List

You are going shopping and you need somewhere to store all the things you want to buy

1) "Apples"
2) "Bananas"
3) "Steak"
4) "Candy"
5) "Coffee"

How can I store all of these Strings?

"Apples"	"Bananas"	"Steak"	"Candy"	"Coffee"

Arrays!

- Set aside enough space to store all of our shopping items
- Fill up those 'slots'
- Access all of our shopping items by the location of its 'slot'

```java
    // Set aside space for 5 Strings
--> String arrayName[] = new String[5];
    // Store our Strings
--> arrayName[0] = "Apples";
--> arrayName[1] = "Bananas";
--> arrayName[2] = "Steak";
--> arrayName[3] = "Candy";
--> arrayName[4] = "Coffee";
```

"Apples"	"Bananas"	"Steak"	"Candy"	"Coffee"
0	1	2	3	4

```
// Set aside space and store our Strings
String arrayName[] = {"Apples","Bananas","Steak","Candy", "Coffee"};
```

Accessing Our Items

- How can I print out all of the items on my shopping list?

```java
// Set aside space and store our Strings
String arrayName[] = {"Apples","Bananas","Steak","Candy", "Coffee"};

System.out.println(arrayName[0]);
System.out.println(arrayName[1]);
System.out.println(arrayName[2]);
System.out.println(arrayName[3]);
System.out.println(arrayName[4]);
```

Looping with Arrays

```java
// Set aside space and store our Strings
String arrayName[] = {"Apples","Bananas","Steak","Candy", "Coffee"};

for (int i = 0; i < arrayName.length; i++) {
    System.out.println(arrayName[i]);
}
```

Bringing It All Together

- Using methods, loops and arrays…
- Store 5 items from user input as a 'shopping list'
- For each of the items, check its price and print it out
- Print out the total cost of all the items

→ Apples - $1
→ Bananas - $2
→ Steak - $15
→ Candy - $3
→ Coffee - $8
→ Potato - $3
→ Chicken - $9
→ Milk - $4
→ Bread - $5

Bonus Challenge

- If you finish the previous challenge…
- Allow the user to enter how many items they want
- For each item on the shopping list, ask the user how much of the item they would like
- Use this when calculating the cost