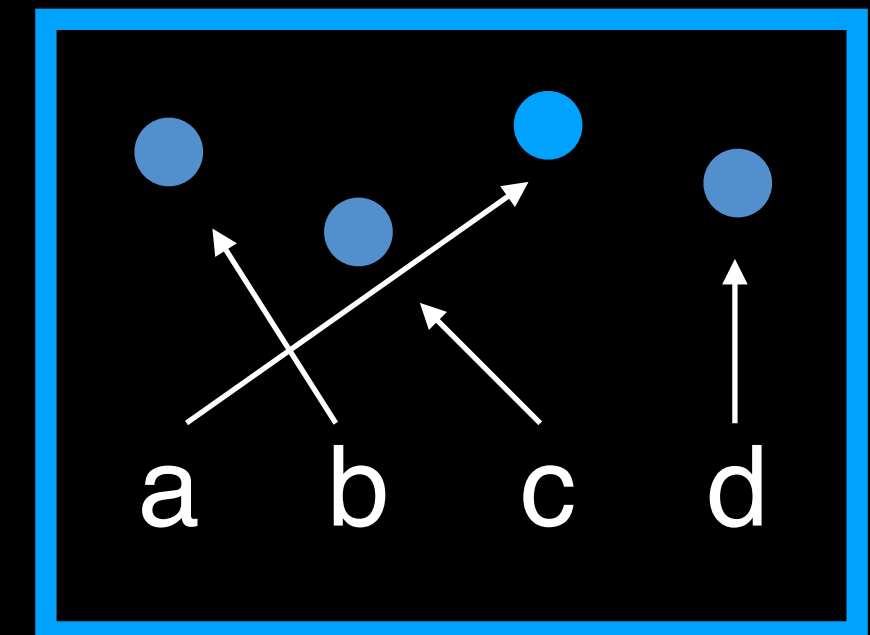


Unit 2—Lesson 5: Collections

Collection Types

Dictionary is an unordered collection of key-value associations



Collection Types

| Array | |
|-------|---------|
| 0 | Cat |
| 1 | Dog |
| 2 | Dolphin |
| 3 | Tiger |
| 4 | Monkey |

Arrays

Defining

```
[value1, value2, value3]
```

```
var names: [String] = ["Anne", "Gary", "Keith"]
```

Arrays

Defining

```
[value1, value2, value3]
```

```
var names = ["Anne", "Gary", "Keith"]
```

Arrays

Defining

```
var numbers = [1, -3, 50, 72, -95, 115]
```

Arrays

contains

```
let numbers = [4, 5, 6]
if numbers.contains(5) {
    print("There is a 5")
}
```

There is a 5

Working with arrays

Accessing or setting a specific item

```
var names = ["Anne", "Gary", "Keith"]  
let firstName = names[0]  
print(firstName)
```

Anne

```
names[1] = "Paul"  
print(names)
```

["Anne", "Paul", "Keith"]

Working with arrays

Appending

```
var names = ["Amy"]  
names.append("Joe")  
names += ["Keith", "Jane"]  
print(names)
```

```
["Amy", "Joe", "Keith", "Jane"]
```

Working with arrays

Inserting

```
var names = ["Amy", "Brad", "Chelsea", "Dan"]  
names.insert("Bob", at: 0)  
print(names)
```

```
["Bob", "Amy", "Brad", "Chelsea", "Dan"]
```

Working with arrays

Removing

```
var names = ["Amy", "Brad", "Chelsea", "Dan"]  
let chelsea = names.remove(at:2)  
let dan = names.removeLast()  
print(names)
```

```
["Amy", "Brad"]
```

```
names.removeAll()  
print(names)
```

```
[]
```

Working with arrays

```
var myNewArray = firstArray + secondArray
```

Working with arrays

Arrays within arrays

```
let array1 = [1,2,3]
let array2 = [4,5,6]
let containerArray = [array1, array2]
let firstArray = containerArray[0]
let firstElement = containerArray[0][0]
print(containerArray)
print(firstArray)
print(firstElement)
```

```
[[1, 2, 3], [4, 5, 6]]
[1, 2, 3]
1
```

Unit 2—Lesson 5

Lab: Collections



Open and complete the exercises in Lab – Collections.playground

