Tuples

Tuples are used to group multiple values into a single compound value that can then be decomposed into its parts

```
let http404Error = (404, "Not Found")
// http404Error is of type (Int, String), and equals (404, "Not Found")
```

You can then decompose the tuple's contents into separate constants or variables

```
let (statusCode, statusMessage) = http404Error
print("The status code is \(statusCode)")
// prints "The status code is 404"
print("The status message is \(statusMessage)")
// prints "The status message is Not Found"
```

If you don't need a component of the tuple, ignore that part with an underscore, (_) when decomposing

```
let (justTheStatusCode, _) = http404Error
print("The status code is \(justTheStatusCode)")
// prints "The status code is 404"
```

You can also access the values by 0-indexing

```
print("The status code is \(http404Error.0)")
// prints "The status code is 404"
print("The status message is \(http404Error.1)")
// prints "The status message is Not Found"
```

You can also name the values when creating the tuple to access components through their names

```
let http200Status = (statusCode: 200, description: "OK")

print("The status code is \(http200Status.statusCode)")
// prints "The status code is 200"
print("The status message is \(http200Status.description)")
// prints "The status message is OK"
```

- **NOTE: Tuples are not good data structures for persistent storage, only temporary usage**
  - Model persistent data as a class or structure