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LEARNING OBJECTIVES

- + Describe JSON's role in networking
- + Read JSON
- + Write JSON

HETEROGENEOUS NETWORKING

Server App **Running Python** Browser Running Javascript

iOS App Running Swift

JSON TO THE RESCUE!

JSON is a standard for organizing data.

It's kind of like a little language.

```
{ "username" : "Kenneth", "age" : 1000 }
```

When you have two different apps running in different languages, having a standard is useful for sending large amounts of organized information.

JSON SYNTAX

JSON records values and collections much like how Swift uses objects and collections.

In fact, the syntax in JSON should look pretty familiar!

Remember: these aren't full objects with types, properties or methods. They're just pieces of information written in a recognizable way.

Array Object **{:**} String // 11 Bool true Int 10 Double 10.01 Null null

JSON SYNTAX

```
JSON data is linear, like a string, so you can
                                                     Array
write it like a string:
                                                     Object
                                                                        {:}
{ "username" : "DJTanner", "age" : 16 }
                                                     String
                                                                        \\ //
                                                      Bool
To make it more readable by humans, JSON is
                                                                        true
often rendered with indentation:
                                                     Int
                                                                        10
                                                      Double
                                                                        10.01
     "username": "DJTanner",
     "age" : 16
                                                     Null
                                                                        null
```

JSON SYNTAX

Practice:

- Write a JSON array that has two strings and two doubles in it.
- 2) Write a JSON object that has three key-value pairs. The keys should be strings. One value should be a string and the other two should be integers.
- 3) Write a JSON array of dictionaries with one key-value pair each. The values should be booleans.

Array [

Object {:}

String " "

Bool true

Int 10

Double 10.01

Null null