

Saving Data in iOS

Using JSON

What is JSON?

- ⚙️ JSON stands for JavaScript Object Notation.
- ⚙️ It is a human readable format used to transmit data.
- ⚙️ JSON is formatted in attribute-value pairs.
- ⚙️ It is an alternative to XML for sending data across the network.



JSON Types

- ⚙ Primitive JavaScript Types: String, Boolean, Number, Null
- ⚙ Arrays are indicated by brackets - []
- ⚙ Objects are indicated by braces - { }
- ⚙ Objects are a collection of name-value pairs.
- ⚙ User commas to add additional fields.

```
"my_object" : {  
  "attributeName" : "value",  
  "numberValue" : 100,  
}
```

XML to JSON

```
<?xml vers
<video_gam
  <video
    <n
    <r
    <s
  </vide
</video
<video
  <n
  <r
  <s
</vide
</video_ga
```

```
[
  {
    "name" : "Minecraft",
    "rankingSystem" : "five-star",
    "rating" : 5,
    "synopsis" : "Build your own voxel..."
  },
  {
    "name" : "Day Z",
    "rankingSystem" : "five-star",
    "rating" : 4,
    "synopsis" : "Try to survive in a ..."
  }
]
```

```
</synopsis>
</synopsis>
```

NSJSONSerialization

- ⚙️ Converts JSON to foundation objects or can convert foundation objects to JSON.
- ⚙️ The top level object is an NSArray or an NSDictionary.
- ⚙️ All objects are instances of NSString, NSNumber, NSArray, NSDictionary, or NSNull.
- ⚙️ All dictionary keys are NSStrings.



JSON Decoding

+JSONObjectWithData:options:error:

+JSONObjectWithStream:options:error:

⚙ The JSON must be encoded in the following formats:

UTF-8, UTF-16LE, UTF-16BE, UTF-32LE, UTF-32BE

⚙ Takes three different options:

NSJSONReadingMutableContainers

NSJSONReadingMutableLeaves

NSJSONReadingAllowFragments

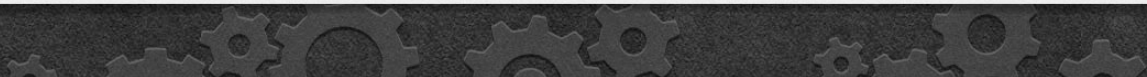
JSON Encoding (cont'd)

+dataWithJSONObject:options:error



+writeJSONObject:toStream:options:error:

- ⚙️ If method produce invalid JSON, then an exception will be thrown.
- ⚙️ Use isValidJSONObject to determine if object can be encoded into JSON.
- ⚙️ Setting the option NSJSONWritingPrettyPrinted will use whitespace to make the JSON human readable.

Demo



Challenge

Carrier  11:34 AM 

First Name

Last Name

Happy Sad Meh

Reason for the Mood

Was chased by an angry mob of coders to the Benny Hill soundtrack.

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