



JSON

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Introduction

- JSON (JavaScript Object Notation) is a lightweight data-interchange format.
- It is easy for humans to read and write.
- It is easy for machines to parse and generate.
- It is based on a subset of the JavaScript Programming Language.
- JSON is a text format that is completely language independent but uses conventions that are familiar to programmers of the C-family of languages, including C, C++, C#, Java, JavaScript, Perl, Python, and many others.
- These properties make JSON an ideal data-interchange language.
 - Two Structures:
 - A collection of name/value pairs.
 - An ordered list of values.
- Validator: https://jsonformatter.org/?utm_content=cmp-true

Datatypes

- Number: a signed decimal number (integer / floating-point).
- `{ "age":50 }`
- String: a sequence of zero or more Unicode characters. Strings are delimited with double quotation marks and support a backslash escaping syntax.
- `{ "firstname":"Thomas" }`
- Boolean: either of the values true or false
- `{ "married":true }`
- Array: an ordered list of zero or more elements, each of which may be of any type.
- `{ "subject" : ["POS", "DBI", "FAA"] }`
- Object: a collection of name–value pairs where the names (also called keys) are strings.
- `{ "partner" : { "name":"Andrea", "age":50 } }`
- null: an empty value, using the word null.

```
{"menu": {  
  "id": "file",  
  "value": "File",  
  "popup": {  
    "menuitem": [  
      {"value": "New", "onclick": "CreateNewDoc()"},  
      {"value": "Open", "onclick": "OpenDoc()"},  
      {"value": "Close", "onclick": "CloseDoc()"}  
    ]  
  }  
}}
```

JSON

```
<menu id="file" value="File">  
  <popup>  
    <menuitem value="New" onclick="CreateNewDoc()" />  
    <menuitem value="Open" onclick="OpenDoc()" />  
    <menuitem value="Close" onclick="CloseDoc()" />  
  </popup>  
</menu>
```

XML

<https://json.org/example.html>