

YAML & JSON Essentials



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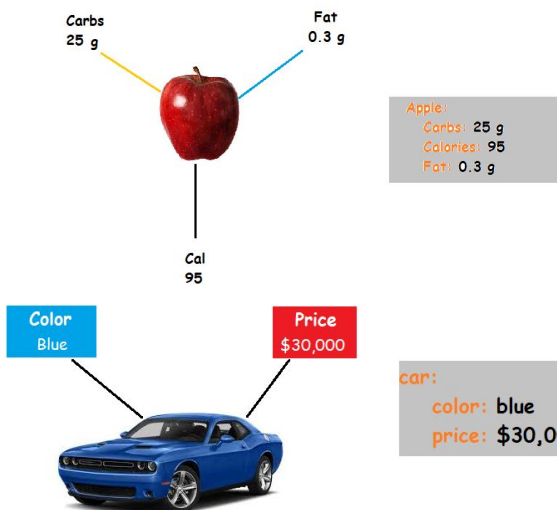


1

What is YAML?



What is YAML?



YAML

```
1 yaml:  
2   - slim and flexible  
3   - better for configuration  
4 object:  
5   key: value  
6   array:  
7     - null_value:  
8     - boolean: true  
9     - integer: 1  
10 paragraph: >  
11   Blank lines denote  
12  
13   paragraph breaks  
14 content: |-  
15   Or we  
16   can auto  
17   convert line breaks  
18   to save space
```



What is YAML?

- **YAML** (a recursive acronym for "**YAML Ain't Markup Language**") is a human-readable data-serialization standard for programming languages.
- It is **commonly used for configuration files** and in applications where **data is being stored or transmitted**.



What is YAML?

- The files should have **.yaml** (or **.yml**) as the extension.
- YAML is designed by **Clark Evans**, **Ingy döt Net**, and **Oren Ben-Kiki**. (2001).
- <https://yaml.org/>





What is YAML?

- The **key-value** is YAML's **basic building block**.
- The key is always a **string**.
- The value is a **scalar** so that it can be various data types.



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What is JSON?





What is JSON?



JSON

```
1 {  
2   "json": [  
3     "rigid",  
4     "better for data interchange"  
5   ],  
6   "yaml": [  
7     "slim and flexible",  
8     "better for configuration"  
9   ],  
10  "object": {  
11    "key": "value",  
12    "array": [  
13      {  
14        "null_value": null  
15      },  
16      {  
17        "boolean": true  
18      },  
19      {  
20        "integer": 1  
21      }  
22    ]  
23  }  
24 }
```



What is JSON?

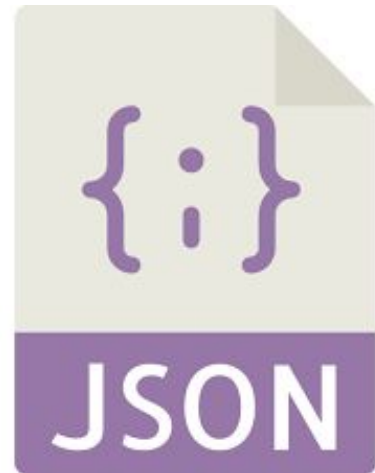
- **JSON** stands for **JavaScript Object Notation**.
- JSON, is a **minimal, readable format** for **structuring data**. It is used primarily to **transmit data** between a server and web application; and also used for storing data.





What is JSON?

- The files should have **.json** as the extension.
- JSON is designed by **Douglas Crockford** (2001).
- <https://json.org/>



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Quick Comparison YAML vs. JSON



► Quick Comparison

- **YAML** is **best suited for configuration** while **JSON** is better as **a serialization format or serving up data** for your APIs.
- **YAML** has a **couple of big advantages** including the ability to self-reference, support for complex datatypes, embedded block literals, comments, and more.
- Easily convertible to each other.



► Quick Comparison

Type	YAML	JSON
Comments	Denoted with a hash/number sign	Not allowed
Hierarchy	Mappings, and sequences can be nested. Hierarchy is determined by the indentation level	Objects and arrays can be nested, and are denoted by braces and brackets, respectively.
Arrays	[first, second, 3]	["first", "second", 3]
Strings	Does not require quoting but supports both single and double quotes	Must be double-quoted. Allows character (tabs, newlines, etc.) escaping with a backslash as the escape character.
Numbers	Built-in support for integers, floating-point, octal and hexadecimal numbers	Floating point numbers in scientific notation. Infinity is not permitted.
Date/Timestamp	Supported	Not supported



Quick Comparison

JSON b	Copy JSON	YAML b	Copy YAML
<pre>1 { 2 "json": [3 "rigid", 4 "better for data interchange" 5], 6 "yaml": [7 "slim and flexible", 8 "better for configuration" 9], 10 "object": { 11 "key": "value", 12 "array": [13 { 14 "null_value": null 15 }, 16 { 17 "boolean": true 18 }, 19 { 20 "integer": 1 21 } 22] 23 } 24 }</pre>		<pre>1 --- 2 json: 3 - rigid 4 - better for data interchange 5 yaml: 6 - slim and flexible 7 - better for configuration 8 object: 9 key: value 10 array: 11 - null_value: 12 - boolean: true 13 - integer: 1 14</pre>	



Converters & Formatters

- <https://codebeautify.org/json-to-yaml>
- <https://codebeautify.org/yaml-to-json-xml-csv>
- <https://jsonformatter.org/json-to-yaml>
- <https://jsonformatter.org/yaml-to-json>



Format References

- <https://yaml.org/>
- <https://json.org/>



THANKS!

Any questions?

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Break
return @ 9pm