

JSON

What the hell !



Suitable for beginners

Absolutely! JSON stands for JavaScript Object Notation. It's a standard text-based format used for transmitting data between web applications and servers.

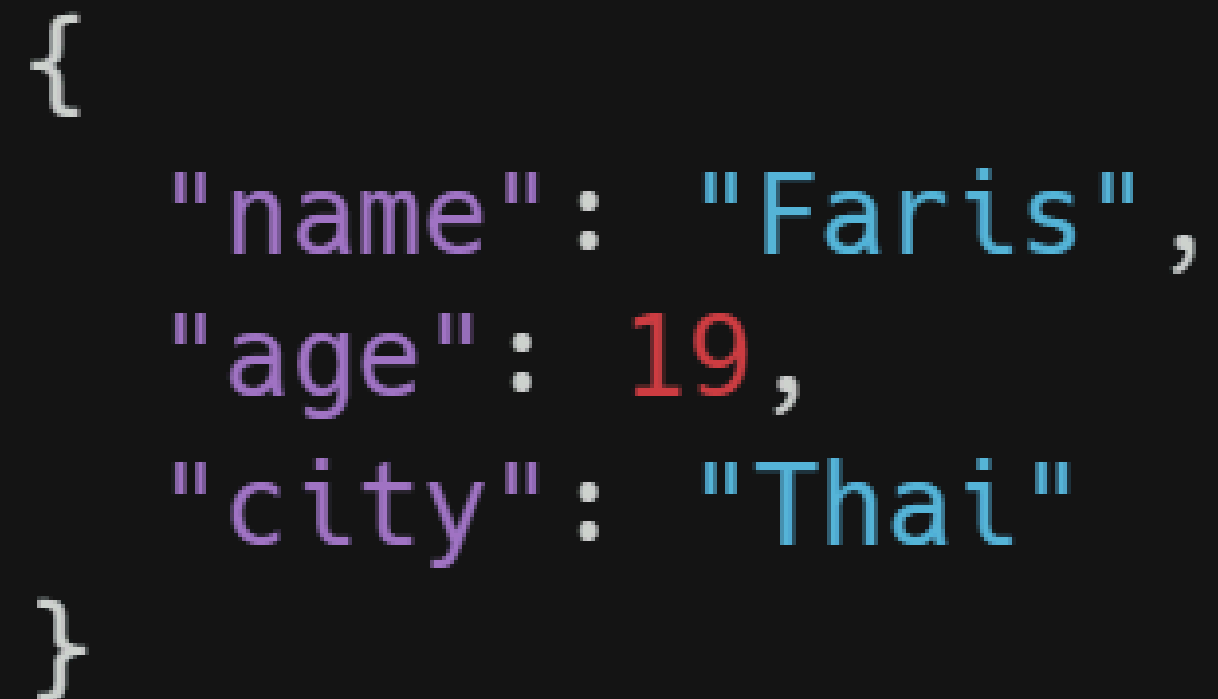


Think of it like organizing information into neat packages. For example, if you have data about a customer, like their name, age, address, and a list of items they bought, **JSON** helps you structure this information in a way that's easy for both humans to read and machines to understand.

The basic structure of **JSON** involves "name/value pairs." Data is organized into these structures:

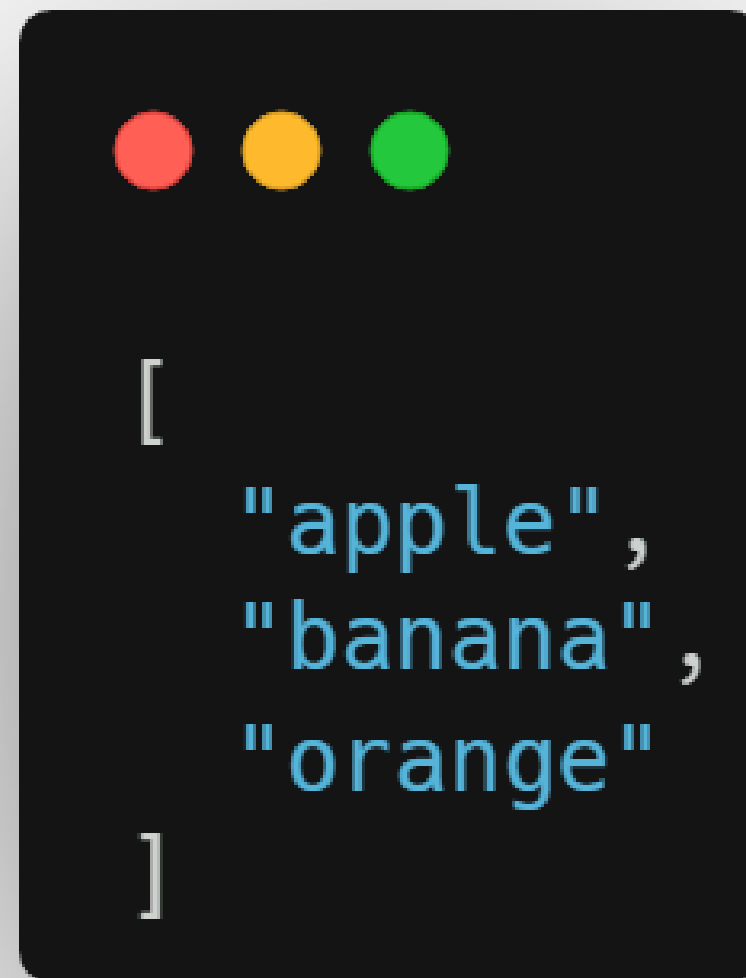
Object: This is a collection of name/value pairs enclosed in curly braces **{}**. Each pair is separated by a comma **,**, and the name is separated from the value by a colon

: Example



```
{  
  "name": "Faris",  
  "age": 19,  
  "city": "Thai"  
}
```

Array: This is an ordered list of values enclosed in square brackets []. Each value is separated by a comma ,. The values in an array can be any of the JSON data types, including strings, numbers, objects, or even other arrays. Example:



```
[  
  "apple",  
  "banana",  
  "orange"  
]
```

A terminal window with a dark background and three colored window control buttons (red, yellow, green) at the top left. It displays a JSON array containing three string values: "apple", "banana", and "orange".

Or an array of objects:



```
[  
  { "name": "pen", "price": 1.50 },  
  { "name": "pencil", "price": 0.50 }  
]
```

A terminal window with a dark background and three colored window control buttons (red, yellow, green) at the top left. It displays a JSON array containing two object values. Each object has a "name" property and a "price" property. The first object is {"name": "pen", "price": 1.50} and the second is {"name": "pencil", "price": 0.50}.

Data types allowed in **JSON**:

- **String**: Text enclosed in double quotes "", e.g., "Hello"
- **Number**: Integers or floating-point numbers, e.g., 10, 3.14, -5
- **Boolean**: Either true or false
- **Null**: Represents a **null** or empty value: null
- **Object**: A **JSON** object enclosed in curly braces {}
- **Array**: A **JSON** array enclosed in square brackets []

Why is **JSON** so popular?

- **Human-readable**: The format is quite straightforward, making it easy to read and understand.
- **Lightweight**: Compared to other data formats like **XML**, **JSON** is less verbose, resulting in smaller file sizes and faster data transmission.
- **Language-independent**: Although it originated from **JavaScript**, **JSON** can be easily used with almost all programming languages.