

# What is JSON?

**J**ava**S**cript **O**bject **N**otation (JSON) is a data exchange format often used by APIs.

It is language independent. So if your server runs on Python and your client is in JavaScript, you can easily transfer data between them.

JSON allows you to share key-value pairs, arrays, objects between the client and the server.



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# JSON Syntax

- Data is in key/value pairs.
- Data is separate by commas.
- Last key/value pair cannot end with comma.

2



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# JSON Example

Here is an example of data in JSON:

```
data.json

{
  "description": "All users",
  "users": [
    {
      "id": 1,
      "name": "Saad Irfan",
      "github": "https://github.com/msaaddev"
    },
    {
      "id": 2,
      "name": "John Doe",
      "github": "https://github.com/johndoe"
    }
  ]
}
```



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# JSON Data Types

JSON file can accept the following types as its keys:

- string
- number
- object
- array
- boolean
- null

JSON values cannot be a function and undefined.



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# Convert String to JSON

You can convert strings into JSON using `JSON.parse()` method in JavaScript.

```
index.js

const data = '{"name": "Saad Irfan"}';

const jsonData = JSON.parse(data);

console.log(jsonData.name);
// output → Saad Irfan
```



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# JSON vs. XML

- JSON has types  
XML is type less.
- Data is readily available as JSON objects in JavaScript.  
XML data needs to be parsed to use it.
- JSON does not support comments  
whereas XML does.
- JSON is much easier to read compared to XML.

