Developer Resources

HANDLING JSON JAVASCRIPT

{.js} JavaScript





@ayush.codes

<u>Ayush Gupta</u>

Introduction to JSON

- JSON (JavaScript Object Notation) is a lightweight data interchange format used for storing and transporting data.
- It's often used when data is sent from a server to a web page.
- JSON is language-independent, selfdescribing, and easy to understand.







5 JSON Syntax

- JSON data consists of name/value pairs, similar to JavaScript object properties.
- A name/value pair includes a field name (in double quotes), followed by a colon and the corresponding value.
- Unlike JavaScript, JSON names require double quotes.







5 JSON Objects

- JSON objects are enclosed in curly braces { }.
- Objects multiple can contain name/value pairs.

```
data.json
"firstName": "John",
"lastName": "Doe"
```









5 JSON Arrays

- JSON arrays are enclosed in square brackets [].
- An array can contain objects.

```
employeeData.json
"employees": [
   "firstName": "John",
    "lastName": "Doe"
 },
   "firstName": "Anna",
   "lastName": "Smith"
 },
   "firstName": "Peter",
   "lastName": "Jones"
```









Converting JSON to Js Objects & Js Object to JSON

To convert a JSON string to a JavaScript object, use JSON.parse().

```
JS parse.js
let jsonString = '{ "name": "Alice", "age": 25 }';
let jsonObject = JSON.parse(jsonString);
console.log(jsonObject.name); // Output: "Alice"
console.log(jsonObject.age); // Output: 25
```

To convert a JavaScript object to JSON format, use JSON.stringify().

```
JS stringify.js
const jsonData = { "name": "John", "age": 22 };
const jsonStr = JSON.stringify(jsonData);
console.log(jsonStr); // Output: "{\"name\":\"John\",\"age\":22}"
```







JS Code to handle JSON data from an API

```
JS fetch.is
async function fetchData(url) {
  try {
    const response = await fetch(url);
    if (!response.ok) {
      throw new Error(`Error fetching data: ${response.status}`);
    const data = await response.json();
    return data; // Return the parsed data
  } catch (error) {
    console.error("Error:", error);
    return null; // Or handle the error differently (optional)
  }
}
// Example usage:
(async () \Rightarrow \{
  const apiData = await fetchData('https://api.example.com/data');
 if (apiData) {
    console.log("Fetched data:", apiData);
    // Process the data here (e.g., display it, manipulate it)
    console.log("Error fetching data!");
  }
})();
```







Was it helpful sollow for more!













