

JSON - OVERVIEW

http://www.tutorialspoint.com/json/json_overview.htm

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JSON or JavaScript Object Notation is a lightweight text-based open standard designed for human-readable data interchange. Conventions used by JSON are known to programmers, which include C, C++, Java, Python, Perl, etc.

- JSON stands for JavaScript Object Notation.
- The format was specified by Douglas Crockford.
- It was designed for human-readable data interchange.
- It has been extended from the JavaScript scripting language.
- The filename extension is **.json**.
- JSON Internet Media type is **application/json**.
- The Uniform Type Identifier is public.json.

Uses of JSON

- It is used while writing JavaScript based applications that includes browser extensions and websites.
- JSON format is used for serializing and transmitting structured data over network connection.
- It is primarily used to transmit data between a server and web applications.
- Web services and APIs use JSON format to provide public data.
- It can be used with modern programming languages.

Characteristics of JSON

- JSON is easy to read and write.
- It is a lightweight text-based interchange format.
- JSON is language independent.

Simple Example in JSON

The following example shows how to use JSON to store information related to books based on their topic and edition.

```
{
  "book": [
    {
      "id": "01",
      "language": "Java",
      "edition": "third",
      "author": "Herbert Schildt"
    },
    {
      "id": "07",
      "language": "C++",
      "edition": "second",
      "author": "E.Balagurusamy"
    }
  ]
}
```

After understanding the above program, we will try another example. Let's save the below code as **json.htm**

```
<html>
  <head>
    <title>JSON example</title>

    <script language = "javascript" >

      var object1 = { "language" : "Java", "author" : "herbert schildt" };
      document.write("<h1>JSON with JavaScript example</h1>");
      document.write("<br>");
      document.write("<h3>Language = " + object1.language+"</h3>");
      document.write("<h3>Author = " + object1.author+"</h3>");

      var object2 = { "language" : "C++", "author" : "E-Balagurusamy" };
      document.write("<br>");
      document.write("<h3>Language = " + object2.language+"</h3>");
      document.write("<h3>Author = " + object2.author+"</h3>");

      document.write("<hr />");
      document.write(object2.language + " programming language can be studied " +
"from book written by " + object2.author);
      document.write("<hr />");

    </script>

  </head>

  <body>
  </body>

</html>
```

Now let's try to open json.htm using IE or any other javascript enabled browser that produces the following result –

JSON with JavaScript example

Language = Java

Author = herbert schildt

Language = C++

Author = E-Balagurusamy

C++ programming language can be studied from book written by E-Balagurusamy

You can refer to JSON Objects chapter for more information on JSON objects.