JSON: JSON stands for JavaScript Object Notation. JSON is an open standard for exchanging data on web. When exchanging data b/w browser and a server, the data can only be text. JSON is text, we can convert any JavaScript Object into JSON, and send JSON to the server. We can also convert any JSON received from the server into JavaScript objects.

→ JSON is lightweight and self describing
→ JSON is originated from JavaScript
→ JSON is easy to read and write
→ It is language independent
→ JSON supports data structures such as array and objects.

→ **Features of JSON :-**

1) Simlicity 2) Openness 3) Self describing
4) Internationalization 5) Extensibility 6) Interoperability

JSON vs XML :-

```
{ "employee" : [
        { "name" : "abc", "email" : "abc@gmail.com" },
        { "name" : "xyz", "email" : "xyz@gmail.com" },
        { "name" : "pqr", "email" : "pqr@gmail.com" }
    ]}
```

XML

```
<employees>
    <~~emp~~ employee>
        <name> abc </name>
        <email> —— </email>
    </employee>
    <employee>
        <name> —— </name>
        <email —— </email>
    .
    .
```

JSON vs XML : JSON provides more readability and easy to learn as compared to XML.

	JSON	XML
1)	JSON ~~stands for~~ doesn't Provide display capabilities	XML provides the capability to display data because it is a markup language.
2)	JSON data-oriented	XML is document oriented.
3.)	JSON supports array	XML doesn't array
4.)	JSON is less secure than XML	4.) XML is more secured
5.)	JSON supports only text and number data type.	XML supports many data types such as text, number, images, charts, graphs. XML offers many options for transferring the format or structure of the data with actual data

Similarities :-

→ Both are simple and open.

→ Both supports Unicode

JSON files are created with by object and array. Each object can have different data such as text, number, boolean etc.

JSON Object

A json object contains data in the form of key/value pair. The keys are strings and the values are the JSON types. keys and values are separated by colon. Each entry (key/value) pair is separated by comma.

```
{
    "employee": {
        "name": "xyz",
        "salary": "99999",
        "gender": "male"
    }
}
```

* The curly brace represents JSON object

JSON array:

The [square bracket represents the JSON array. A JSON array can have values and objects

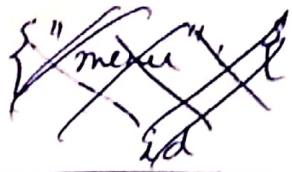
→ Let's see the example of JSON array having values.

```
["sunday", "Monday", "Tu", ---, " "]
```

→ Let's see the example of JSON array having objects.

```
[
    {"name": "Ram", 'email': "ram@gmail.com"},
    {"name": "Shyam", "email": 'shyam@gmail.com'}

]
```



JSON Comments :- Json doesn't support comments. It is not a standard. But we can ~~do some~~ add some comments by putting extra attributes for comments.

```
{
    "employee": {
        "name": "Bob",
        "salary": 50000,
        "Comments": "He is a nice man"
    }
}
```