# JSON Questions and Answers

1. What is the purpose of JSON?

* JSON stands for **JavaScript Object Notation**, as name indicates- here objects are built in JavaScript. JSON is a format that is used for data transmitting.
* Earlier we have used XML as our primary data format for interchanging back data, but now a days JSON had become a preferred format because of its lightweight format.

1. What problem does JSON solve?

* Space issue- it takes very less space than XML.
* We can now quickly utilize the keys within our logs (Because you can have a hierarchal format within your log events, where we can expose this parent-child relationship within the log viewport, and  make it much easier to read and visualize the log events).
* JSON can be easily consumed by JavaScript.

1. What types does JSON support?

* JSON format supports the following datatypes,
* **Number** (like double or floating-point)
* **String** (double quoted with backslash escaping)
* **Array** (ordered sequence of values)
* **Object** (unordered collection of key)
* **Value** (can be string, number, boolean or null)
* **Boolean** (true/false)
* **Null** (empty)
* **Whitespace** (can be used between in any pair of tokens)

1. What is the difference between an object and an array in JSON?

* We will use JSONArray to parse JSON which means that array ‘[‘..begins and ends with brackets..’]’. Arrays in JSON are used to organize a collection of related items (Which could be JSON objects). And the values are separated by , (comma).  
  For example: [{"myshop":"item 1"},{"myshop": "item2”} ]
* Whereas, We will use JSONObject when dealing with JSON that it ‘{‘..starts with and ends with curly braces.. '}'. A JSON object is typically used to contain key/value pairs related to one item. Each name is followed by ':'(colon) and the key/value pairs are separated by ‘,’ (comma).

For example: {"myname": "sososo", "description":"something goes here"}

* Common behaviour on both JSON arrays and objects may be nested inside one another.

1. How do you represent an array?

* Representing an array in JSON and arrays in JavaScript are almost same.
* As explained above arrays are enclosed in square brackets and values are separated by comma.
* Exmaple: [“value1”, “value2”, value3, ----]

1. How do you represent an object?

* Objects is a collection of set of unordered values/names.
* Objects are enclosed in curly braces where each name is followed by colon and values are separated by comma.
* Example: { “myname”: “soundarya”, designation: web developer, ….}

1. How are object keys written?

* Object key need to be quoted always in order to avoid a syntax error. **Quotes can only be omitted if the property name is a numeric literal or a valid identifier name.** The keys must be string and should be different from each other. Objects should be used when the key names are arbitrary strings.

1. Which types require quotes?

* Strings and Objects types always need to be quoted. **Quotes can only be omitted if the property name is a numeric literal or a valid identifier name.**

1. If you needed to keep values in a set order, which type would you use?

* I would prefer to use Array type.

1. If you needed to show that a list of items is unique or is a strict set in the sense that no duplicate elements will exist in the list, which type would you use?

* Again, I would say Array type to show unique list of items.

1. What are some of the limitations of JSON?

* No support in web services products such as application servers.
* There is no support for formal grammar definition, hence interface contracts are hard to communicate and enforce

1. What common issues does JSON not solve?

* I’m not prety sure on it and when I’m browsing I have noticed that we face difficulty when using JSON with SQL in creating a nested json structure and with objects that are surrounded with double quotes and escaped) will cause unexpected result.