**jaSON – 1**

1. JSON is a lightweight data-interchange format used to send data between computers.
2. JSON object literals are surrounded by curly braces {} that contains key/value pairs. Keys and values are separated by a colon. The keys must be strings, and values must be a valid JSON data type.
3. Other names for object are instance, properties, attribute.
4. ordered list of values is also used in HTML, python, C.
5. A JSON value is one of the following types: object, array, number, string, Boolean, null.
6. A javascript JSON value is one of the following types: object, array, number, string, Boolean, null, functons, dates, undefined.
7. Only strings need quotes, all other data types don’t.
8. 3 characters is the minimum size of a string in JSON.
9. A JSON key is a string written with double quotes. It is used to create a key/value pair to be written in a JSON.
10. Booleans are supported as values in JSON.
11. Yes, an array can be a JSON value.
12. Yes, an object can be a JSON value.
13. Yes, we can assign an object as the value of a property of another object.
14. JSON is an open standard file format and data interchange format.
15. JSON stands for JavaScript object Notation.
16. The file extension of a JSON file is .json.
17. The key and the value in JSON are separated by : and two key/value pair are separated by a comma (,).
18. Square brackets ([]) hold lists.
19. Curly brackets contain objects.
20. Yes, objects can contain arrays as values.
21. Json.loads() is used to parse a valid JSON string into python dictionary and json.parse() is used to parse a valid JSON string into a javascript object.
22. Xml is a software-independent tool for storing and transporting data. Xml is so bad because of the following:

* Xml can be complex to understand.
* Xml documents can contain a lot of unnecessary information.
* There is no one single standard to xml.
* Xml documents can be vulnerable to certain types of cyber-attacks.
* Not all software of programming languages support xml.

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| **JSON** | **XML** |
| Based on javascript | Derived from SGML |
| A way of representing objects | Is a markup language |
| Does not support namespaces | Supports namespaces |
| Supports arrays | Does not supports arrays |
| Easy to read | Difficult to read |
| Less secured | More secured |
| Does not supports comments | Supports comments |
| Supports only UTF-8 encoding | Supports multiple encoding methods |
| Doesn’t use end tags | Has start and end tags |

1. We would use JSON for: transferring data between systems, simplifying complex data models, generating a JSON object from user-generated data.
2. Separate file
3. To get the first code name papuchasJason[codenames][0].