JSON Format

JavaScript Object Notation (but language independent)

Used to format data

Commonly used in Web as a vehicle to describe data being sent between systems

Example:

```
{
    "orders": [
        {
            "orderno": "748745375",
            "date": "June 30, 2088 1:54:23 AM",
            "trackingno": "TN0039291",
            "custid": "11045",
            "customer": [
                {
                    "custid": "11045",
                    "fname": "Sue",
                    "lname": "Hatfield",
                    "address": "1409 Silver Street",
                    "city": "Ashland",
                    "state": "NE",
                    "zip": "68003"
                }
            ]
        }
    ]
}
```

- An *object* is an unordered set of name/value pairs
- The pairs are enclosed within braces, { }
- There is a colon between the name and the value
- Pairs are separated by commas
- Example: { "name": "html", "years": 5 }
- An *array* is an ordered collection of values
- The values are enclosed within brackets, [ ]
- Values are separated by commas
- Example: ["html", "xml", "css"]
- A *value* can be: A string, a number, true, false, null, an object, or an array
- Values can be nested
- *Strings* are enclosed in double quotes, and can contain the usual assortment of escaped characters

REST API:

- Representational State Transfer
- State can be represented in JSON, XML, text, YAML, etc
- Technology independent – communication between otherwise potentially incompatible systems

HTTP Methods

The *PUT*, *GET*, *POST* and *DELETE* methods are typically used in REST based architectures. The following table gives an explanation of these operations:

HTTP Method	CRUD Operation	Description
POST	INSERT	Addes to an existing resource
PUT	UPDATE	Overrides existing resource
GET	SELECT	Fetches a resource. The resource is never changed via a GET request
DELETE	DELETE	Deletes a resource

HTTP REST Response:

```
HTTP/1.1 200 OK (285ms)
Date: Fri, 21 Apr 2017 10:27:20 GMT
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.1e-fips PHP/7.0.16
X-Powered-By: PHP/7.0.16
Content-Length: 109
Keep-Alive: timeout=5, max=100
Connection: Keep-Alive
Content-Type: application/json; charset=UTF-8
```

{"status":"success","message":"City List","data":[{"city_name":"Visakhapatnam"},{"city_name":"Vijayawada"}]}

HTTP REST API Response

HTTP Response Status Code:

1xx	Informational Codes
2xx	Successful Codes
3xx	Redirection Codes
4xx	Client Error Code
5xx	Server Error Codes

List at here: https://en.wikipedia.org/wiki/List_of_HTTP_status_codes