Data Formats

When we use the internet, we make HTTP request and get HTML back.

API's don't respond with HTML. HTML contains information about the structure of a page. API's respond with data, not structure.

They use simpler data formats like **XML** and **JSON**

XML

Extended Markup Language

XML is syntacticly similar to HTML, but it does not describe presentation like HTML does

```xml
<person>
    <age>21</age>
    <name>Travis</name>
    <city>Los Angeles</city>
</person>
```

JSON

Javascript Object Notation

JSON looks exactly like JavaScript objects, but
everything is a string

```
{
  "person": {
    "age": "21",
    "name": "Travis",
    "city": "Los Angeles"
  }
}
```

XML vs. JSON

```xml
<person>
    <age>21</age>
    <name>Travis</name>
    <city>Los Angeles</city>
</person>
```

```json
{
 "person": {
   "age": "21",
   "name": "Travis",
   "city": "Los Angeles"
  }
}
```

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Examples

Forecast for Nome, AK

Wind for Chicago, IL

Current conditions for San Diego, CA

One word conditions for Dallas, TX

Sunset time for Hawaii

Weather in Greenland

Responses

◉ JSON   ○ XML

YQL Query ⓘ   YQL Console

select astronomy.sunset from weather.forecast where woeid in (select woeid frc

Test

Response

```
{
  "query": {
   "count": 1,
   "created": "2017-10-22T03:26:08Z",
   "lang": "en-US",
   "results": {
    "channel": {
     "astronomy": {
      "sunset": "5:57 pm"
     }
    }
   }
```

When you input the data (this data may include the place you want to know weather) and you request to Yahoo API Weather. Yahoo will send you and JSon or XML file which includes all weather character in this place (the endpoint is JSON file Yahoo send you). it is easier to use JSON extension in browser to view JSON file

Endpoint

https://query.yahooapis.com/v1/public/yql?q=select%20astronomy.sunset%20from%20w

Collapse all   Expand all

```
{
-   query: {
        count: 1,
        created: "2017-10-22T03:26:13Z",
        lang: "en-US",
-       results: {
-           channel: {
-               astronomy: {
                    sunset: "5:57 pm"
                }
            }
        }
    }
}
```