JAVASCRIPT
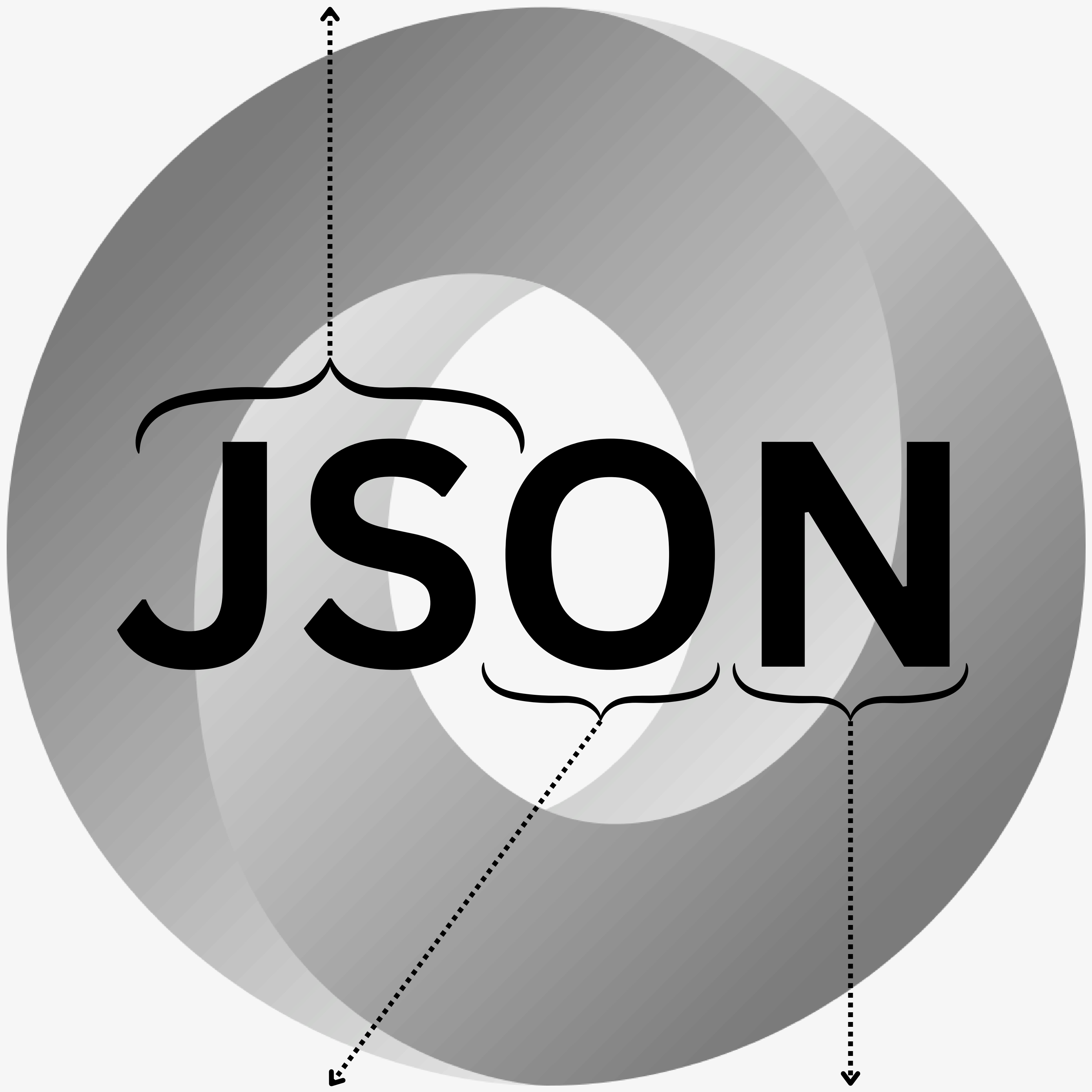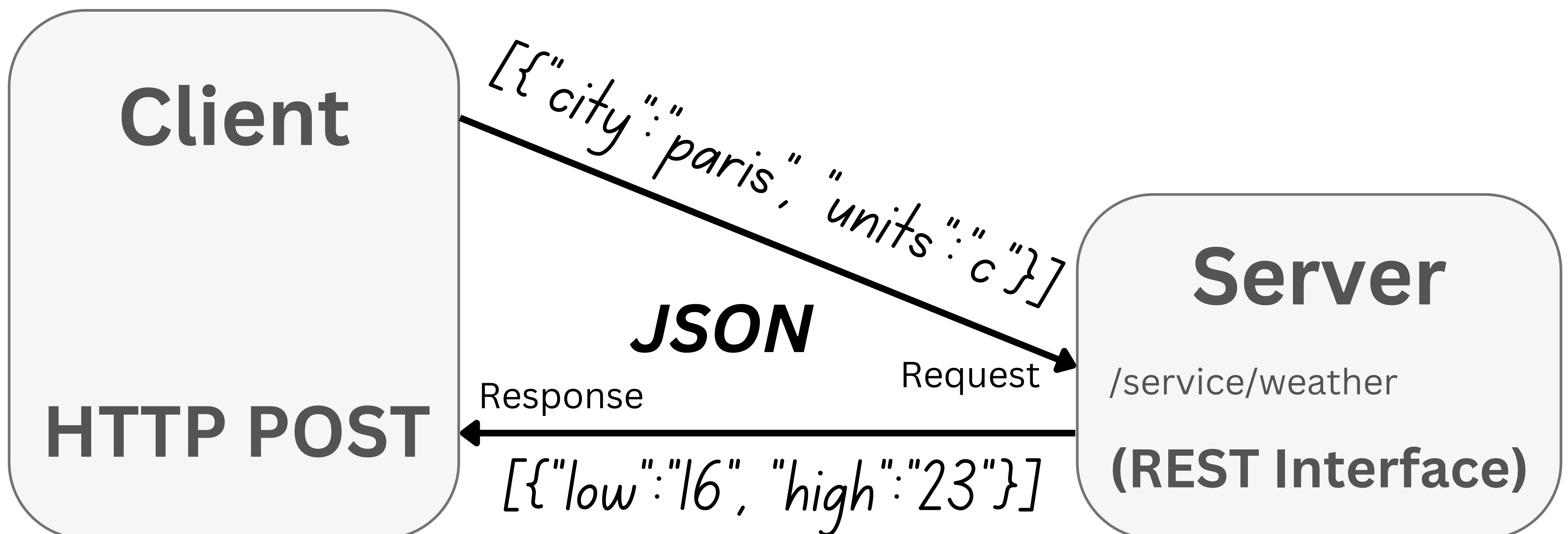
JSON

OBJECT NOTATION

JSON

- **JSON stands for JavaScript Object Notation.**

- **JSON is a lightweight format for storing & transporting data.**

- **JSON is "self-describing" and easy to understand.**

- **JSON is often used when data is sent from a server to a web page.**

Client

HTTP POST

JSON

[{"city":" paris," "units":" c "}]

Request

Response

[{"low":"16", "high":"23"}]

Server

/service/weather

(REST Interface)

JSON EXAMPLE

```json
{
"employees":[
    {"firstName" : "John", "lastName" : "Doe"},
    {"firstName" : "Anna", "lastName" : "Smith"},
    {"firstName" : "Peter", "lastName" : "Jones"}
  ]
}
```

This example defines an employees object: *an array of 3 employee records (objects)*

Key and Values →

KEY AND VALUES

The two primary parts that make up **JSON are keys and values.**

Together they make a key/value pair :-

- **Key:** A key is always a string enclosed in quotation marks.
- **Value:** A value can be a string, number, boolean expression, array, or object.

Key ⟶ **"name"** : **"aditya"** ⟵ Value

The **key** is **"name"** and the **value** is **"aditya"**.

JSON.parse() ⟶

JSON.parse()

When receiving data from a web server, the data is always a **string.**

Imagine we received this text from a web server

```
'{ "name": "Aditya", "age": 19, "country": "India"}'
```

Use the JavaScript function **JSON.parse()** to convert text into a JavaScript object

```javascript
var obj = JSON.parse('{"name";"Aditya", *age":19, "country";"India"}');
```

JSON.stringify()

JSON.stringify()

The **JSON.stringify()** method converts a JavaScript object or value to a JSON string, optionally replacing values if a replacer function is specified or optionally including only the specified properties if a replacer array is specified.

SYNTAX

JSON. stringify(value, replacer, space)

JSON String

```
'{
"language":"JavaScript",
"IDE":"Visual Studio",
"Theme":"dark"
}'
```

JSON.parse() →

← JSON.stringify()

JavaScript Object

```
{
language:'JavaScript',
IDE:'Visual Studio',
Theme:'dark'
}
```
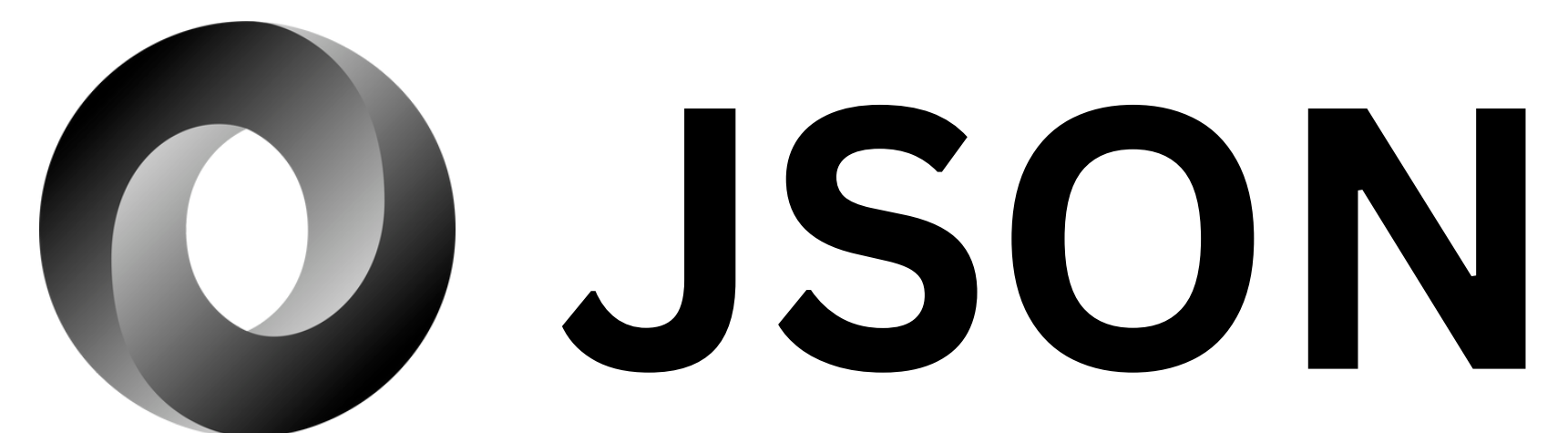
JSON VALUES

in JSON, values must be one of the following data types:

- **string**

- **number**

- **object (JSON object)**

- **array**

- **boolean**

- **null**

JSON

RECAP

JSON is a **minimal data format.** Just by learning a **few key principles you can decode** an entire site's worth of **JSON.**

JSON