JSON Object vs JSON Array in API (Complete Guide)

1. What is JSON?

JSON (JavaScript Object Notation) is a lightweight data format used in API requests and responses.

2. JSON Object

A JSON Object represents a single entity and uses curly braces {}
{ "id": 1, "name": "Soni", "role": "QA", "active": true }
Use-case: GET /users/1

3. JSON Array

A JSON Array represents a list of objects and uses square brackets []
[{ "id": 1, "name": "Soni" }, { "id": 2, "name": "Amit" }]
Use-case: GET /users

4. JSON Object vs JSON Array (Comparison)

Feature	JSON Object	JSON Array
Brackets	{ }	[ ]
Represents	Single record	Multiple records
API Example	/users/1	/users
Access	response.name	response[0].name

5. Mixed JSON Structure (Real APIs)

{ "page": 1, "total": 2, "data": [{ "id": 1, "name": "Soni" }, { "id": 2, "name": "Amit" }] }
Here, the outer structure is a JSON Object, and the 'data' field is a JSON Array.

6. Karate Examples

Then match response.name == 'Soni' Then match response[0].name == 'Soni'

7. Interview Quick Points

- JSON Object uses key-value pairs
- JSON Array stores multiple objects
- Object can contain array and vice versa
- Arrays are accessed using index

One-Line Summary

JSON Object represents a single entity, while JSON Array represents a collection of entities in API responses.