

Parsing JSON

This document outlines a Playwright test script designed to interact with an API, create a new incident in ServiceNow, and parse the JSON response.

Script Code

```
import { chromium, expect, test } from "@playwright/test";

test('Parsing text to json', async({request})=>{
  const startTime = performance.now();

  // To create a new incident
  const response = await request.post("https://dev201976.service-
now.com/api/now/table/incident",
    {
      headers:{
        "Content-Type": "application/json",
        "Authorization": "Basic YWRtaW46cWNYWjVLYV6cTVE"
      },
      data:{
        "short_description": "Created via Playwright"
      }
    }
  );

  // Parsing
  const respBody = await response.text();
  console.log(respBody);
  const parsedJSON = JSON.parse(respBody);
  console.log(parsedJSON);

  // To get the status code
  const apiStatusCode = response.status();
  console.log(`The status code is ${apiStatusCode}`);

  // Assertion
  expect(apiStatusCode, 'expecting api status code to be 201').toBe(201);

  // To get the incident number
  const inc_num = parsedJSON.result.number;
  console.log(`Incident number is ${inc_num}`);
```

```
// To get the sys_id
const sys_id = parsedJSON.result.sys_id;
console.log(`The sys id is ${sys_id}`);

const endTime = performance.now();
const respTime = endTime - startTime;
console.log(`Response time is ${respTime}`);
// Assertion
expect(respTime).toBeLessThan(2000);
});
```

Explanation

JSON parsing is the process of converting JSON text into a usable structure or object in a specific programming language. JSON, which stands for JavaScript Object Notation, is a lightweight data-interchange format that is easy for humans to read and write, and easy for machines to parse and generate. It's widely used for transmitting data in web applications between clients and servers.

How JSON Parsing Works

1. JSON Structure:

- JSON is built on two structures:
 - A collection of key/value pairs (often called an object in programming languages).
 - An ordered list of values (often called an array).
- JSON objects are written inside curly braces `{}`, and arrays are written inside square brackets `[]`.
- Each key in a JSON object is a string followed by a colon `:`, and key-value pairs are separated by commas ``,``.

2. Parsing JSON:

- When you parse JSON, you convert the string form of JSON into an object (in JavaScript), or similar data structures in other languages, where keys are strings and values can be strings, numbers, booleans, arrays, or other objects.
- Use `JSON.parse()` to convert a JSON string into a JavaScript object.

Why Parsing JSON Is Important

- **Data Interchange:** JSON is a standard format used for data interchange between a server and web applications or between different parts of an application.
- **APIs and Web Services:** Many public and private APIs use JSON format for requests and responses. Parsing JSON is crucial to work with these APIs effectively.
- **Configuration Files:** JSON is also commonly used in configuration files for modern software and applications. Parsing these files is essential to configure apps dynamically.