Same Origin Test

Test Plan

For probing the fact that browser does not see the ip address and the corresponding domain name as the same origin for a web page, we will test the localhost and the corresponding ip address (127.0.0.1). The page that we will access will try to make a request for each domains. The request will try to access the `test.json`'s page content as a result. The expected bahaviour is that the request that corresponds with the domain of the page accessed should pass and to show in the console the content requested. The request to the other domain should throw a CORS error even if they have the same origin.

For this we will need the following:

- a server that runs locally (We will use a Node.js server). The server's code is stored in `server.js` file

```
const express = require('express');
const app = express();
app.use(express.static(__dirname));
app.listen(8000, () => console.log('Server running on http://localhost:8000'));
```

the server can be run with this command in the same folder as the file:

```
node server.js
```

- a file that can be accessed and that should make the requests once it is checked. The code is in the filed named `same-origin-test.html`

this is the code that runs in this page:

```
// same-origin-test.html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Same Origin Test</title>
</head>
<body>
    <h1>Same-Origin Policy Test</h1>
    <p>Open the console to see the results.</p>
    <script>
        // Define the localhost and 127.0.0.1 versions of the same server
        const localhostUrl = 'http://localhost:8000/test.json';
        const loopbackUrl = 'http://127.0.0.1:8000/test.json';

        // Fetch from localhost
        fetch(localhostUrl)
```

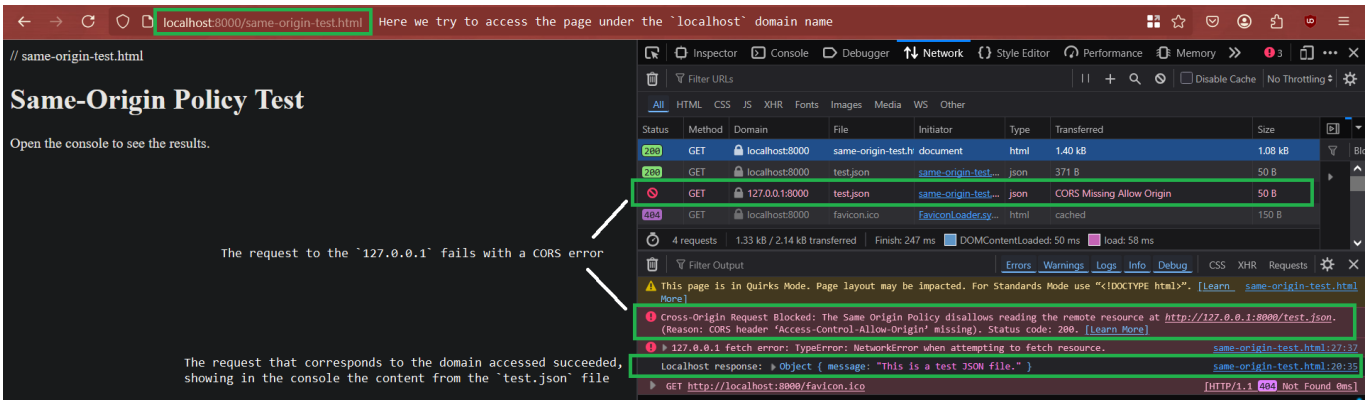
```
            .then(response => response.json())
            .then(data => console.log('Localhost response:', data))
            .catch(error => console.error('Localhost fetch error:', error));

        // Fetch from 127.0.0.1
        fetch(loopbackUrl)
            .then(response => response.json())
            .then(data => console.log('127.0.0.1 response:', data))
            .catch(error => console.error('127.0.0.1 fetch error:', error));
    </script>
</body>
</html>
```

- finnaly we will need the content to be requested (from the `test.json`):

```
{
    "message": "This is a test JSON file."
  }
```

Tests results

- Accessing `localhost:8000/same-origin-test.html`



Similar results can be seen accessing the ip address: