Loading JSON Data with JavaScript

In this tutorial, you will load data from a JSON file and display it on a webpage using JavaScript.

The JSON file contains information about a smart home, including devices and security events.

Create the Project Files

Create a new folder called:

```
json-demo
```

Inside the folder create:

```
index.html
smart_security_data.json
```

Copy the JSON file into the project folder.

Your folder structure should look like:

```
json-demo
├── index.html
└── smart_security_data.json
```

Create the HTML Page

Open:

```
index.html
```

Add the following code:

```
<!DOCTYPE html>
<html>
<head>
    <title>JSON Demo</title>
</head>
<body>

<h1>Smart Home Dashboard</h1>

<div id="output"></div>

<script src="script.js"></script>

</body>
</html>
```

Save the file.

Create the JavaScript File

Create a new file called:

```
script.js
```

Your folder should now look like:

```
json-demo
├── index.html
├── script.js
└── smart_security_data.json
```

Load the JSON File

Open:

```
script.js
```

Add:

```
fetch("smart_security_data.json")
    .then(response => response.json())
    .then(data => {

        console.log(data);

    });
```

Save the file.

This code loads the JSON file and converts it into a JavaScript object.

Open Developer Tools

Open:

```
index.html
```

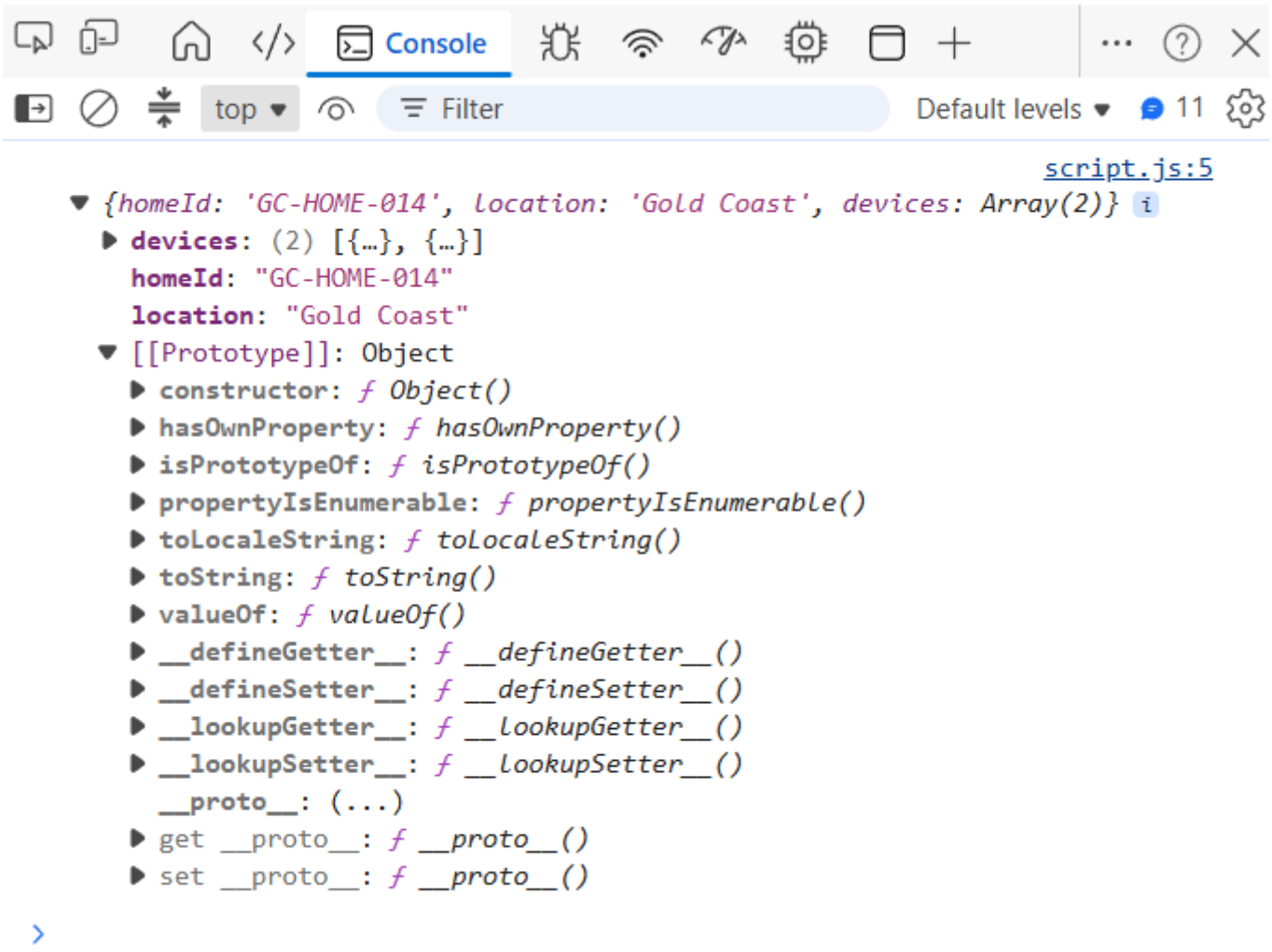
in your browser.

Press:

```
F12
```

and select the **Console** tab.

You should see the JSON data displayed.



Display the Home Information

Replace the contents of:

```
.then(data => {


});
```

with:

```
.then(data => {

    document.getElementById("output").innerHTML = `
        <p><strong>Home ID:</strong> ${data.homeId}</p>
        <p><strong>Location:</strong> ${data.location}</p>
    `;
```

```
});
```

Save the file.

Refresh the page.

You should now see:

```
Home ID: GC-HOME-014
Location: Gold Coast
```

Display the Devices

Update the code:

```
fetch("smart_security_data.json")
    .then(response => response.json())
    .then(data => {

        let html = `
            <p><strong>Home ID:</strong> ${data.homeId}</p>
            <p><strong>Location:</strong> ${data.location}</p>

            <h2>Devices</h2>
            <ul>
        `;

        data.devices.forEach(device => {

            html += `
                <li>
                    ${device.deviceId}
                    (${device.deviceType})
                </li>
            `;

        });

        html += "</ul>";
```

```
        document.getElementById("output").innerHTML = html;

    });
```

Refresh the page.

You should now see:

```
Home ID: GC-HOME-014
Location: Gold Coast

Devices

CAM-01 (Security Camera)
LOCK-02 (Smart Door Lock)
```

Complete JavaScript File

```
fetch("smart_security_data.json")
    .then(response => response.json())
    .then(data => {

        let html = `
            <p><strong>Home ID:</strong> ${data.homeId}</p>
            <p><strong>Location:</strong> ${data.location}</p>

            <h2>Devices</h2>
            <ul>
        `;

        data.devices.forEach(device => {

            html += `
                <li>
                    ${device.deviceId}
                    (${device.deviceType})
                </li>
```

```
            `;

        });

        html += "</ul>";

        document.getElementById("output").innerHTML = html;

    });
```

You have successfully loaded a JSON file and displayed data using JavaScript.

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