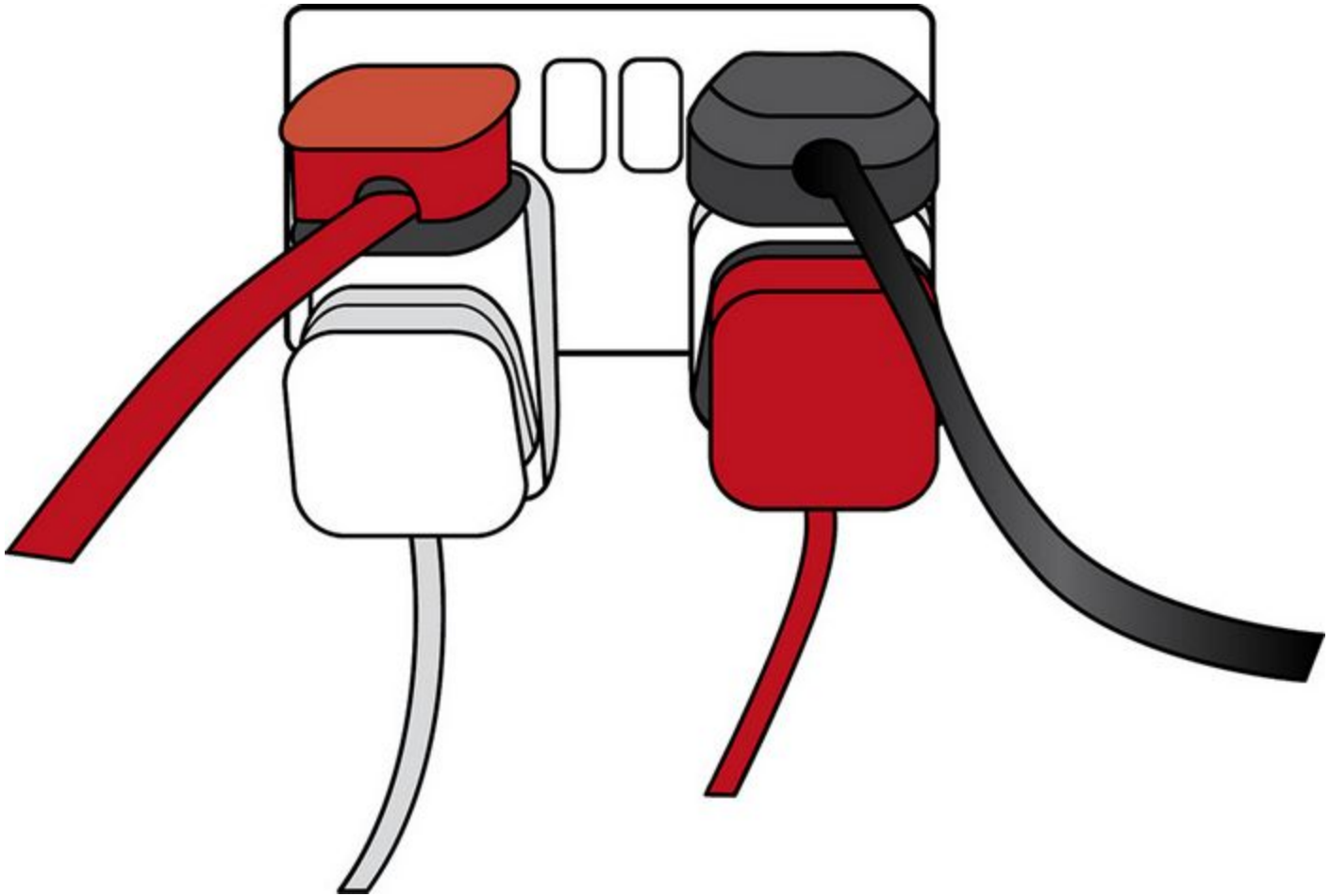
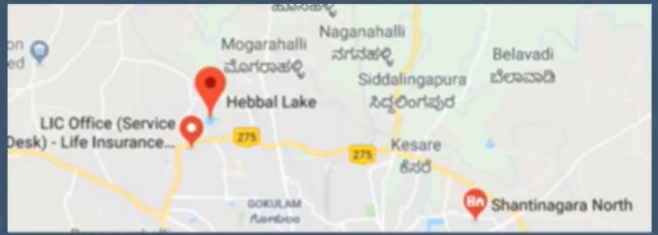
Client-side Web APIs

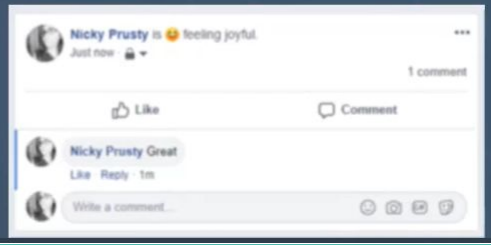


google maps



twitter feed

facebook posts



Two types of APIs

Browser APIs	Third-Party APIs
DOM (Document Object Model)	Twitter API
Geolocation API	Google Maps API
Audio/Video APIs	

API (Application Programming Interface)

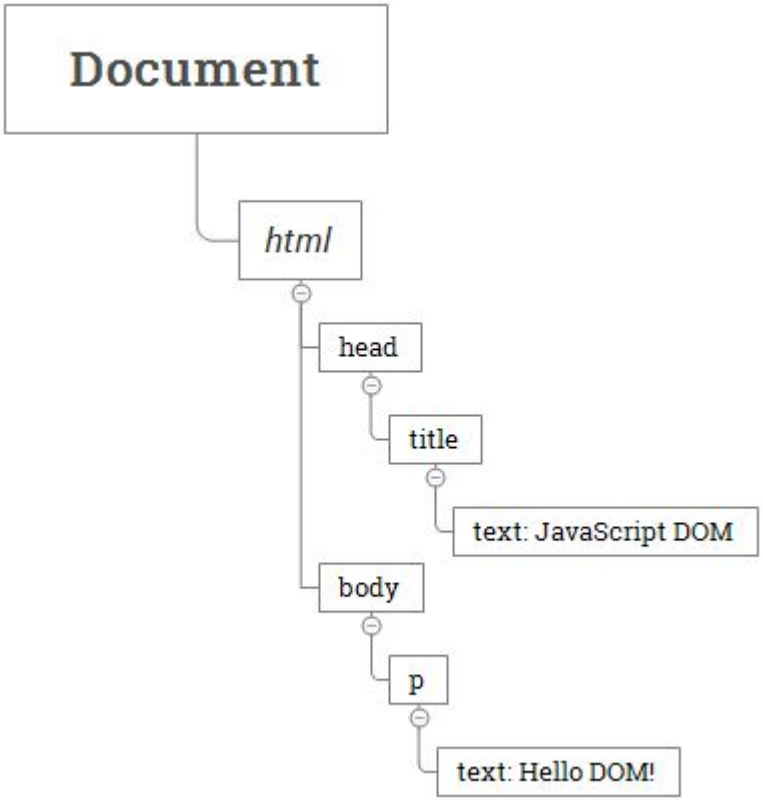
- The APIs provided to JS by the browser are called **Web API**
- Web APIs allow us to interact with the browser through our JS code
- **Console.log** is a Web API
- Types of APIs
  - Document Object Model(DOM)
  - Notification API
  - Storage API
  - XMLHttpRequest(XHR)

Document Object Model(DOM)

- API for manipulating HTML documents.
- The DOM represents an HTML document as a tree of nodes.
- The DOM provides functions that allow you to add, remove, and modify parts of the document effectively.
- DOM is cross-platform and language-independent ways of manipulating HTML and XML documents.

A document as a hierarchy of nodes

```
<html>
    <head>
        <title>JavaScript DOM</title>
    </head>
    <body>
        <p>Hello DOM!</p>
    </body>
</html>
```



Selecting Elements

- **getElementById()** – select an element by id.
- **getElementsByName()** – select elements by name.
- **getElementsByTagName()** – select elements by a tag name.
- **getElementsByClassName()** – select elements by one or more class names.
- **querySelector()** – select elements by CSS selectors.

Notification

The Notification API allows you to use JavaScript to display desktop notifications to the users.

Notification permissions

Since the Notification API can be easy to abuse, it strictly enforces two security features by default:

- First, users must explicitly agree to receive the notifications on a per-origin basis.
- Second, only code runs in a secure context (https) can send the notifications.

When you request users for notification permission, they may agree or deny it.

The permission can be one of the following string 'granted', 'denied', or 'default':

- 'granted' – users accept to receive the notifications.
- 'denied' – users deny to have the notifications.
- 'default' – users choices are unknown and browsers will act as if the values were 'denied'.

(Client)Storage API

- **localStorage** – Stores data with no expiration date.
- **sessionStorage** –Stores data for one session (data is lost when the browser tab is closed)