

A short reflection on Weather-App Architecture:

(Prototype3):

Mainly there are two types of storage (Client-side storage & Server-side storage). Client-Side Storage allows the user to store data on the client (i.e. user's browser). Whereas server-side storage will store data on the server. Web storage known as DOM storage (Document Object Model storage) provides web apps with methods and protocols for storing client-side data in key-value pairs. There are 2 types of web storage:

Local storage: It stores data with no expiry date.

Session storage: It stores data for one session.

In this third version of our prototype 3, we were asked to implement client-side caching of the weather data so that we can avoid accessing the server-side cache too often. And achieved data is to be stored in local storage. In our previous prototype, we implemented server-side caching of the weather data (Data were retrieved from API server and stored in the intermediate server(database)) to avoid often accessing the OpenWeatherMap API.

In this prototype, my web App was generated with a localhost server using PHP. Local API server after being created it retrieves Responses obtained from the weather API server. The response string was converted to a JSON object. As per instruction in every 5 min app should get data from Local storage, if not data should be fetched from the server-side cache and loaded into local storage.

Some of the advantages of storing data in local storage:

1. Speed: It is quick access to data.
2. Security: We have complete control over how the data is stored, who has access, and information security protocols.
3. Survivor: It is not reliant on an internet connection.
4. Backup/ Recovery: It saves data locally for offline uses.
5. Local storage is particularly useful if you want to cache some application data in the browser for later usage
6. Local Storage doesn't have as many size constraints as cookies. Local storage provides at least 5MB of data storage across all major web browsers,

which is a lot more than the 4KB (maximum size) that you can store in a cookie.

Some of the disadvantages of storing data in local storage:

1. It can only store string data.
2. It is synchronous so for complex applications it'll slow downtime our app's runtime.
3. It provides 5MB of data storage that might be low for some people bulding apps that are data intensive.