

Name= Hridaya Bhattarai

Student ID=2065693

#Report on the architecture of my weather app.

As a final assessment prototype 3 was assigned to us by our module leader. In this prototype we were required to add a local storage and hence fetch the data from it. Using the local server and API, it displays information on the console and stores it locally. Here different weather condition of San Jose is displayed. By using HTML/JS/CSS to create my weather app and PHP to create the local API server, I was able to fetch data directly from the weather app API to store it locally for easy access. In order to display the data, responses were converted into JSON objects, stored in a database and accessed in local storage. Whenever data was available within a 100 seconds interval, data was displayed from local storage; otherwise, data was retrieved from the database using local API and stored in local storage. This prototype was based on architecture of client-side caching.

Client-side caching is a method of storing web pages in the browser memory instead of in the server cache. It duplicates previously requested files directly within browser applications or other clients. The local Storage property allows JavaScript sites and apps to store key-value pairs in the web browser with no expiration date. The data stored in the browser will persist even after the browser is closed. Local storage was used to store and retrieve the data in this prototype. This gave us many advantages and disadvantages as it has its own strength and weakness.

Strength:

Data can be accessed easily and quickly. Large amount of data can be stored and fetched as local database and store large amount of data. Storage of data is secure and safe as it is retrieved at the client's device itself. It is also a straightforward way to save our data. Timely update of data can be done.

Weakness:

The JavaScript code on your page can access the local storage without any protection. Viewing forecast data requires the browser client device dependency as it retrieves local storage data from 100 seconds ago and assembles a database from 1 hour ago. Strings are the only storage format that local storage supports.