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## Internet Software Architecture (4CS017)

# Project Report Weather App Prototype 3

Student Id	: 2059572
Student Name	: Pritam Gurung
Group	: L4CG11
Module Leader	: Mr. Deepson Shrestha
Tutor	: Mr. Pravash Karki

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# Overview and Introduction of the Weather Application (Prototype 3)

This application is made from the basic knowledge of HTML, CSS, JavaScript and PHP. The concept of API is the key to this application. This application uses its data from the OpenWeatherMap, a free to use API that provides the current weather from over the globe, and stores it in MySQL database named "weatherapp". Data used from this API are description, temperature, wind speed, wind direction, icon, dt, and humidity. This application shows the current weather of Pokhara. This version uses PHP to get data from OpenWeatherMap API and stores it in database, and again uses PHP to get data from database and passes it as API to JavaScript which is then displayed to HTML.

## Advantage of the Application

Since using this application you can get the current weather condition of the place you want to know about, you can predict the future outcome and be prepared for the upcoming weather condition. While using this application you can change your default location yourself by changing only one word in the JavaScript file. *In the text.js file go to line 78 and change pokhara to any city you desire and you are good to go.* Like this now anytime you open this application you will see the current weather condition of your place.

## Disadvantage of the Application

This version of application has a database and connection to server side, this version can give you data when there is no reply from the original OpenWeatherMap API, in this version I have managed the cache. The web application is run by the cache in the web browser for five minutes. If the data is older than 5 minutes it fetches data from the php and stores it in local storage(cache).

## Things I have learned while developing the app

- a. Basics of HTML, CSS and JavaScript
- b. Use of JavaScript in web development process
- c. HTML document manipulation using JS
- d. Use and definition of functions
- e. I learned to use the local storage for storing data so that the frequent calling of OpenWeather API is not necessary
- f. I learned to use the data in local storage to show required information in web app
- g. Setting event listeners for specific cases like button press and key press
- h. Learned basics of PHP
- i. Learned the use of APIs, methods to call them, and handle their data using PHP
- j. Learned to create database using PHP

- k. Learned to insert data into database and connection between PHP and MySQL
- l. Learned to read data from database and make an API using PHP k. Use of headers to allow access to websites for calling API

## Screenshot for local storage

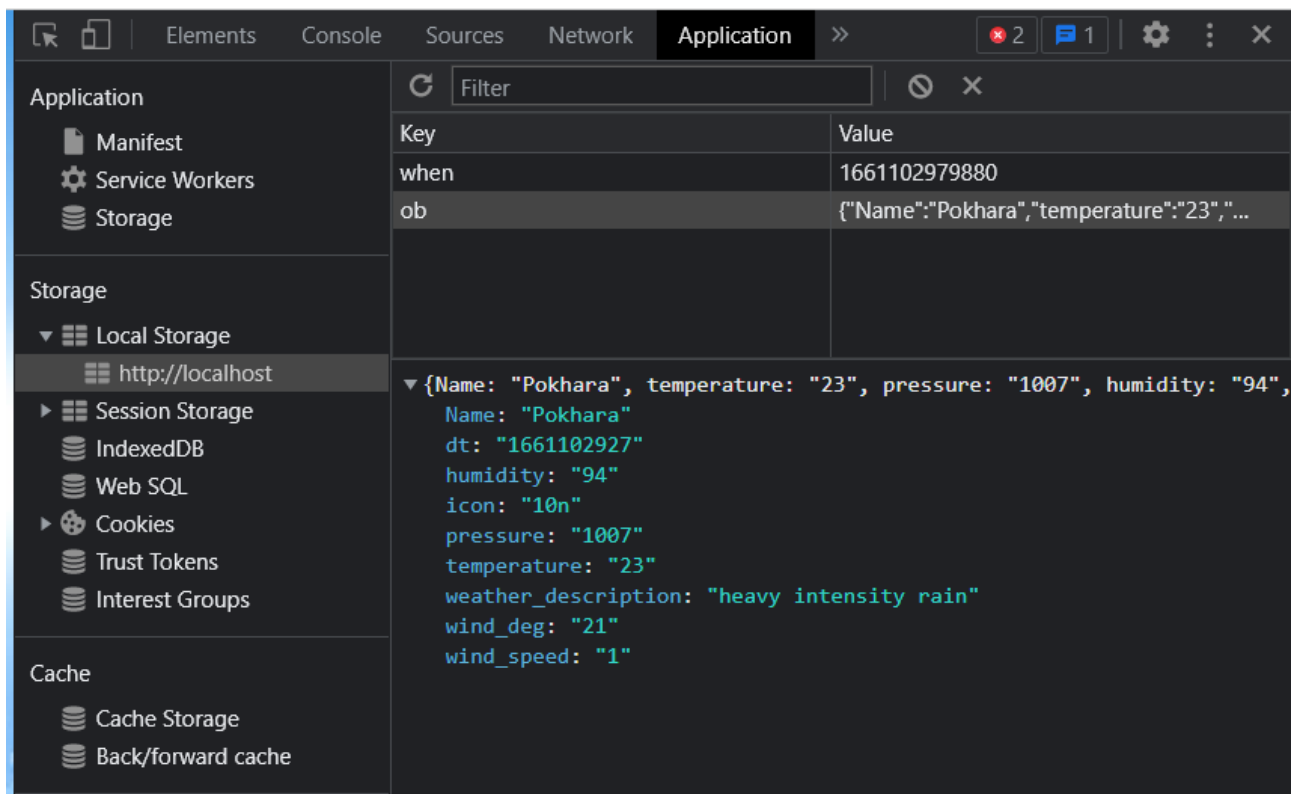


Figure 1: localstorage for weatherapp