UNIVERSITY OF WOLVERHAMPTON
KNOWLEDGE ▪ INNOVATION ▪ ENTERPRISE

Weather Forecast App – Prototype 2

Submitted by:

Name: Swornim Sanjel

Student ID: 2501430

Herald Id: np03cs4a240023

Module Details:

Module: Internet Software Architecture

Module Code: 4CS017

Module Leader: Bishal Khadka

Group: L4C616

Introduction:

My weather forecast app is user-friendly that allows user to check the weather condition for any city. OpenWeatherMap API is used to fetch the real time data by using HTML, CSS, JavaScript and PHP which displays the temperature, pressure, humidity, wind speed. Backend is used to store the in MySQL database which reduces redundant API calls by storing data for 2 hours. Despite being user-friendly, there are improvement areas like responsive design, security, better performance of database.

Strengths:

This application allows the user to search for live weather information of any city using the OpenWeatherMap API making it interactive and user-friendly. I tried my best to make the application attractive and responsive by using different CSS styling making the background blur along with gradient overlays. User-experience is enhanced by using error handlings in JavaScript code which informs the user if there is any error in fetching the data or if any city is not found. For backend, PHP is used to store the live weather data in MySQL database which helps to reduce the redundancy of multiple API calls caching the data for two hours. Backend is designed to be user-friendly as it creates database and table automatically for the users if they do not exist already and stores data in the table for two hours. Therefore, my weather application

features an attractive and responsive UI design, error handling to enhance user-experience and efficient data caching for two hours using MySQL Database.

Weakness:

Despite the strengths, there are certain areas where the app could be improved more. The code uses OpenWeatherMap API key directly, which is risky as it can be exposed. In my application, although the code warns users if a city name is not found or if there is an error in fetching the data, there are no loading indicators used for delays which might confuse the users. The UI design is also not very responsive for different screen sizes and many improvements can be done for the placement and styling of weather icon and temperature. This app also lacks features like input validation and HTTPS which leaves the app at risk of SQL attacks. At last, there is no performance testing which is also a weakness. It needs to be fixed so that my weather app works smoothly and efficiently.