

UNIVERSITY PARTNER



Internet Software Architecture  
(4CSO17)  
Report Writing  
Dundee Weather Forecasting (2<sup>nd</sup> Prototype)

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## **Introduction**

Dundee WeatherForecasting is a simple web application developed and designed to forecast the live weather condition of Dundee city. The static web page was already designed in the first prototype which was made using programming languages such as HTML, JAVASCRIPT, CSS (additional) and Fetch API as a data fetcher and extractor in a json format. But this time, there is added some extra features i.e., Database functionality. In this second prototype, there is implemented MySQL database server for storing weather data permanently.

## **Body**

As compared to the first prototype, this one is quite challenging because we must have to communicate with database using another programming language i.e., PHP (Preprocessor Hypertext). PHP is a most popular programming language and is extensively used to link or connect the relationship between database and webpages. Despite all these components and resources used for building this app, there are some strengths and challenges. On the strength part, this weather app displays the live weather condition of Dundee city as well as shows the past weather data. The weather icon which is used in this application helps to indicate the weather type which is dynamical that means the icon is dynamically changed according to the data fetched from Open Data API server. The weather data is also dynamically changed and represented with beautiful UI that can be easily understandable by the viewer. Moreover, there is also provided the Google map facility to navigate the geographical structure of respective city i.e., Dundee City. Besides these features and strengths, there are also some weaknesses appear in this website. This application cannot store the data in the web browser also called data caching or session storage or local storage or cookies. These terms are very famous in application development especially used for login session, shopping cart etc. Moreover, the data which is fetched from Open Data API server is not 100% accurate because Open Data API is open source that is widely used for testing purpose (by application developer).

## **Conclusion**

The major objectives of designing and developing this website are to provide real-time weather information of respective locations (Dundee city). As the role of application development is also based on how the developer developed it based on user interaction, time complexity, and simplicity, etc. Data storage and retrieval is maintained by using MySQL server and PHP, Data fetching and formatting is done by using JavaScript and JSON formator.

## Reference

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