

UNIVERSITY PARTNER



# Internet Software Architecture (4CSO17)

## Report Writing Dundee Weather Forecasting

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## INTRODUCTION

Dundee WeatherForecasting is a simple web application developed and designed to forecast the live weather condition of Dundee city. This is the first application prototype of week 5 which includes the basic representation of weather data by using basic programming languages and the simple understanding and implementations of different APIs such as the weather, covid-19 data. Altogether, there are 3 application prototypes of this weather app scheduling the 1st prototype in week 5, 2nd prototype in week 9, and the 3rd prototype in week 12 as the final prototype. web application displays the major weather data of Dundee such as temperature, rainfall, wind, humidity, air pressure, and weather types.

## BODY

This weather app is made by using different programming languages, UML diagrams and weather APIs, etc. The programming languages used while working on the frontend part are HTML, CSS (Cascading Styling Sheet), JavaScript, jQuery (JavaScript Library), Bootstrap (CSS Framework) where the HTML and JavaScript are a compulsory part of this assignment. This web app preferred the OpenWeather website for APIs implementation by manually visiting its documentation. OpenWeather website provides free weather APIs consisting of historical weather data of any geographical location in real-time. This weather app displays the live weather data of Dundee city such as temperature, humidity, Weather types, changes in rainfall, Wind, Air pressure, etc. There is also the use of icons for respective weather titles which is dynamically changing right after any increment or decrement in their percentage/degree/ pressure such as temperature as degree Celsius. The measurement of weather data is changed into Metric Mode. Moreover, there are some features that are added to this website besides the requirement such as displaying the current time, displaying past weather data.

## 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. Besides these major features and benefits of this website, there are also some of the drawbacks that are left to add such as this website cannot display the past weather data, cookies management, and dynamic functioning. To display the past weather data, the data should be store in the database. So, there is lacking integration of DBMS in the application. Similarly, cookies management is also much more important browser data which is required before accessing the database.

## References

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2. <https://www.w3schools.com/>
3. <https://getbootstrap.com/>
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