Faculty of Engineering, Computing & Science

Interface Design and Development

Credit Task 5: Weather Forecast App

# Overview

Weather forecast is a great app for travelers to plan their trip and schedule. In this task, you will develop your own weather forecast app using public API from [AccuWeather](https://developer.accuweather.com/). Your app should get three information i.e. city, state and country from user and make a $http request to AccuWeather via its API. You app will then display the current conditions, 12 Hours of Hourly Forecasts, 5-Day Forecast and 24-Hour Historical Current Conditions (with highest and lowest temperature) of the selected city in a few charts.

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| **Purpose:** | To demonstrate you are capable in making good used of public API and data to generate visualization to provide information for end user. |
| **Task:** | You must develop an app containing at least 3 charts to provide information about weather forecast to end user. |
| **Time:** | This task should be completed in your lab class and submitted for feedback before the start of week 11. |
| **Resources:** | * Lecture 1 – Lecture 9 * <https://www.highcharts.com> * <https://developer.accuweather.com/> |
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Submission Details and Assessment Criteria

You must submit the following files to Canvas:

* Complete weather forecast app.
  + index.html
  + app.js
  + all dependencies (.js / .css folders)

Make sure that your task has the following in your submission:

* Code must be HTML5 standard and observe indentation.
* **Your webpage uses the AngularJS and Bootstrap framework as well as highchart library appropriately**.

# Instructions

You must complete all Pass Tasks and Credit Tasks up to Week 8 before start this task.

1. Register an account from <https://developer.accuweather.com>, and then create an unique API Key specifically for your weather forecast app.
2. Explore all available API methods/requests in <https://developer.accuweather.com/apis> : Location API, Forecast API & Current Condition API
3. Prepare a wireframe of your app before developing your weather forecast app. The app must contains:
   1. A card containing current weather conditions, local time, data & selected location
   2. 12 Hours of Hourly Forecasts in a chart
   3. 5-Day weather forecast (can be display in tabular, chart or tiles format)
   4. 24-Hour Historical Current Conditions (with highest and lowest temperature)
   5. Additional one chart of any kind by using any available data acquired from AccuWeather API.
   6. The app must layout the data, table and chart appropriately on both Desktop and Mobile view.

**Note**: Some cities’ name i.e. Kuching & Melbourne appears in multiple places. You are advice to develop your app to first check the right location and acquire the location key. Then perform other request i.e. current condition and forecast with the chosen city key

Accuweather may block your app from accessing its API for overly frequent access i.e. more than 50 request / day. Create multiple API Key as alternative access

1. Develop the designed Weather Forecast App.
2. Remember to **take good care of the UI design, layout, color used and usability aspect**.

**Tip**:You can consider adding advance or other kind of chart (dual-axes, multi-chart etc) to demonstrate your skill in advance interface design, development and data visualization.