**CSD 3103 Lab Test 1**

In this test, you are requested to perform the following:

1 - Develop a weather web-service using Node.js with following functionalities:

* **getWeather:** Enquire about weather for a specific city, for instance: getWeather(“Toronto”)
* **updateCity:** Update the weather of a specific city, for instance: updateCity(“Toronto”, “Sunny 40.0 C, Humidity 45%”)
* **addCity:** Enter new city to the database. For instance: addCity(“Vancouver” , “Cloudy 20.0 C, Humidity 52%”)
* **removeCity:** Removing a city from database by providing the city name.
* **displayAllWeather:** Display the weather for all cities in the database: displayAllWeather()

Each city is represented by:

* Longitude & Latitude
* State & Country
* Weather
* Temperature
* Humidity
* Wind Speed & direction

So, for each city in the database, you are requested to store the above-mentioned information. Use JSON to keep the date in the database and use ‘express’ library in JavaScript.

2 - Create the following html webpages for front-end:

* An html page that contains a text-box to enter the name of a city and add a button “Get Weather”. Once the user clicks the button, the information about the weather for that city is
* displayed on the screen. Depending on the type of the weather, you are requested to display an image (icon) corresponding to that weather condition. Display this icon as a small image right on the side of the name of city in a table.
* An html page to be used to modify a weather info for a specific city. Provide two sections in this page, one for modification (updating) a city and one for removing a city from the database.

3 - Write down the Service Endpoint Interface for the web-service that you have developed in question one. Add it as a comment to your code you have developed.

**To submit:**

Follow these steps to submit your work successfully:

1. Create a folder and name it as firstName\_lastName\_Test\_One
2. Copy all files that you developed in this folder
3. Write down your information on top of this document and place it in the folder
4. Zip this folder and submit it through Moodle before the deadline
5. Write down your information on top of this page and submit this word file along with your files.