

Mini Project: Creating a web application in HTML, PHP and CSS using MySQL and AJAX**(In groups of 4-5 students containing B. Tech. 2nd years)****Dr. Varun Dutt****Due: Before 12:00 NOON on November 15th, 2019**

Readings:

- Class notes, slides, activity and assignment from all the weeks

Objectives:

- Implementing what you have learned in class

Submission:

Each group will make one single submission.

Please submit as a zipped file containing the following documents:

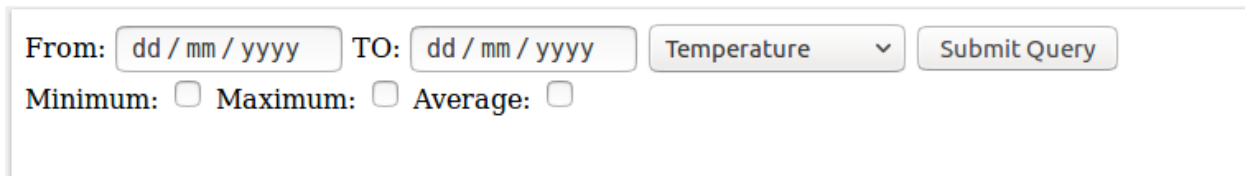
- HTML file and CSS stylesheet with proper filenames
- A PHP file with the code
- Also give the mysql dump

Assignment:

A csv file ("PollutionDataCS207") has been uploaded in moodle. The file contains the following fields

1	Timestamp	Contains the timestamp (m/dd/yyyy hh:mm) when the data was collected
2	CO	The Carbon monoxide concentration on that particular day
3	h	The humidity on the particular day
4	NO ₂	The nitrogen oxide concentration on that particular day
5	O ₃	The concentration of Ozone on that particular day
6	p	The pressure on that particular day
7	pm_10	The particulate matter (10 micrometers or less in diameter) on that particular day
8	pm_1_0	The particulate matter (1 micrometers or less in diameter) on that particular day
9	pm_2_5	The particulate matter (2.5 micrometers or less in diameter) on that particular day
10	SO ₂	Sulfur dioxide concentration on that particular day
11	T	The temperature on that particular day
12	ws	The wind speed on that particular day
.		

1. Insert the data from the csv file into MySQL. (You can directly insert it into MySQL or create a php file that inserts the data into MySQL)
2. Once the data has been inserted create a webpage that similar to this:



The screenshot shows a web form with the following elements:

- From:** A text input field containing "dd / mm / yyyy".
- TO:** A text input field containing "dd / mm / yyyy".
- Field Selection:** A dropdown menu currently showing "Temperature" with a downward arrow.
- Submit Query:** A button.
- Aggregation:** Three checkboxes labeled "Minimum:", "Maximum:", and "Average:", all of which are currently unchecked.

3. The values in the dropdown must be pre-populated from the database using the table fields.

The **TO** and **FROM** range contain the date range between which the maximum, minimum and average value have to be displayed for the different fields (Temperature, pressure, Relative humidity, Rain, and Light Intensity).

3. The user can select any TO and FROM date and any FIELD and select the MAXIMUM, MINIMUM or AVERAGE checkbox and the result should be displayed.

e.g if the user had selected the date range (From:16/10/2019, To: 16/10/2019) and the user wants to view the MAXIMUM Temperature within that date range.

The user may also want to view the MAXIMUM, MINIMUM and AVERAGE Temperature simultaneously than all the values should be displayed.

4. The following application should be created using two methods

- i) In the first method, you need to use **form submit** and display the results in another php page
- ii) In the second method, you need to use **AJAX** to display the results in the same page.

Both methods are needed to be used.

5. **BONUS:** You can also add any other functionality that you deem possible. Like display a graph with the temperature value in y-axis and dates in x-axis.

Note: The submission will be marked on the design of the webpage and the functionalities provided by the students. This project carries 10% of the total grades

Late submissions will not be entertained