

CS5008 Final Project

Refer to the following link for details on the data set provided.

<https://archive.ics.uci.edu/ml/datasets/Air+Quality>

Step 1:

Please refer to the data file provided.

Step 2:

Study all the attributes on the data set from the link provided.

Step 3:

Create a class `airQualityType` with the following data members:

Date, Time, Temperature, Relative Humidity and Absolute Humidity

Step 4:

Read the corresponding values for each of the data members from the file provided and store in an appropriate data structure.

Step 5:

Your program should have the following menu options:

- 1) Prompt the user to enter month and the program should display the average temperature for that month.
- 2) Prompt the user to enter month and the program should display the average relative humidity for that month.
- 3) Prompt the user to enter month and the program should display the average absolute humidity temperature for that month.
- 4) Prompt the user to enter a valid date and time. The program should then display the temperature, and relative humidity at that date and time.
- 5) Prompt the user to enter the month and the program should display the highest temperature for that month.
- 6) Prompt the user to enter the month and the program should display the highest relative humidity value for that month.
- 7) Prompt the user to enter the month and the program should display the highest absolute humidity for that month.

- 8) Display the dates and times for a month when the temperature is higher than the average temperature for that month along with values of the temperature.
- 9) Display the dates and times for a month when the relative humidity is higher than the average relative humidity for that month along with values of the relative humidity.
- 10) Display the dates and times for a month when the absolute humidity is higher than the average absolute humidity for that month along with values of the absolute humidity.

Submission Details:

- 1) Complete project with all files
- 2) Documentation: including student name, aim of the project, user guide, description of the project along with its purpose, class diagram, algorithm, source code listing, test plan and testing results.
- 3) State assumptions if any clearly.
- 4) Include a reflection with regards to your final project work.