

Weather Man

Weatherman folder contains weather files for Lahore. Write an application that generates the following reports. The user can specify more than one report at the same time.

The program should be designed as follows:

1. Define a data structure for holding each weather reading.
2. Define a class for parsing the files and populating the readings data structure with correct data types.
3. Define a data structure for holding the calculations results.
4. Define a class for computing the calculations given the readings data structure.
5. Define a class for creating the reports given the results data structure.
6. Define *main* for assembling the above and running the program.
7. Pep-8 conventions should be followed in the code.

1. For a given year display the highest temperature and day, lowest temperature and day, most humid day and humidity.

weatherman.py /path/to/files-dir -e 2002

Highest: 45C on June 23

Lowest: 01C on December 22

Humidity: 95% on August 14

2. For a given month display the average highest temperature, average lowest temperature, average mean humidity.

weatherman.py /path/to/files-dir -a 2005/6

Highest Average: 39C

Lowest Average: 18C

Average Mean Humidity: 71%

3. For a given month draw two horizontal bar charts on the console for the highest and lowest temperature on each day. Highest in red and lowest in blue.

weatherman.py /path/to/files-dir -c 2011/03

March 2011

01 ++++++ 25C

01 ++++++ 11C

02 ++++++ 22C

02 ++++++ 08C

4. Multiple Reports

weatherman.py /path/to/files-dir -c 2011/03 -a 2011/3 -e 2011

5. BONUS TASK. For a given month draw one horizontal bar chart on the console for the highest and lowest temperature on each day. Highest in red and lowest in blue.

weatherman.py /path/to/files-dir -c 2011/3

March 2011

01 ++++++ ++++++ 11C - 25C

02 ++++++ ++++++ 08C - 22Cw

Use github for versioning. Send your github username to your mentor.