# **Weather Man**

[This repo](https://gitlab.arbisoft.com/uzair.amer/the-lab.git/) contains weather files for Murree. Write an application that generates the following reports. The user can specify more than one report at the same time. You have 3 days to submit the first iteration from the day you are assigned this task.

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 the lab for versioning. Send your gitlab username to your mentor.