

- A text file containing a link to your project repository.

https://github.com/brunaselymes/weather_Project

- Include a screenshot of your code passing all of the tests in Terminal/Powershell

```
PS C:\Users\BrunaSergio\Documents\Bruna\SheCodes\Module_2\Project\weather_project\starter> python .\run_tests.py
Running Tests...

....
-----
Ran 4 tests in 0.001s

OK
....
-----
Ran 4 tests in 0.000s

OK
....
-----
Ran 4 tests in 0.000s

OK
.
-----
Ran 1 test in 0.001s

OK
.....
-----
Ran 6 tests in 0.001s

OK
.....
-----
Ran 6 tests in 0.000s

OK
...
-----
Ran 3 tests in 0.001s

OK
...
-----
Ran 3 tests in 0.001s

OK
PS C:\Users\BrunaSergio\Documents\Bruna\SheCodes\Module_2\Project\weather_project\starter> █
```

- Functions:

```
import csv
```

```
from datetime import datetime
```

```
DEGREE_SYBMOL = u"\N{DEGREE SIGN}C"
```

```
def format_temperature(temp):

    """Takes a temperature and returns it in string format with the degrees
        and celcius symbols.

    Args:

        temp: A string representing a temperature.

    Returns:

        A string contain the temperature and "degrees celcius."

    """

    return f"{temp}{DEGREE_SYBMOL}"
```

```
def convert_date(iso_string):

    """Converts and ISO formatted date into a human readable format.

    Args:

        iso_string: An ISO date string..

    Returns:

        A date formatted like: Weekday Date Month Year e.g. Tuesday 06 July
2021

    """

    return datetime.fromisoformat(iso_string).strftime("%A %d %B %Y")
```

```
def convert_f_to_c(temp_in_fahrenheit):

    """Converts an temperature from fahrenheit to celcius.
```

Args:

temp_in_fahrenheit: float representing a temperature.

Returns:

A float representing a temperature in degrees celcius, rounded to 1dp.

"""

return round((float(temp_in_fahrenheit)-32) * (float(5/9)), 1)

```
def calculate_mean(weather_data):
```

"""Calculates the mean value from a list of numbers.

Args:

weather_data: a list of numbers.

Returns:

A float representing the mean value.

"""

sumOfNumbers = 0

for number in weather_data:

sumOfNumbers += float(number)

return sumOfNumbers / len(weather_data)

```
def load_data_from_csv(csv_file):
```

"""Reads a csv file and stores the data in a list.

Args:

csv_file: a string representing the file path to a csv file.

Returns:

A list of lists, where each sublist is a (non-empty) line in the csv file.

```

"""

linesOfFile = []

with open(csv_file) as csv_file:

    csv_reader = csv.reader(csv_file)

    header = next(csv_reader)

    for line in csv_reader:

        if line != []:

            linesOfFile.append([line[0],int(line[1]), int(line[2])])

    return linesOfFile


def find_min(weather_data):

    """Calculates the minimum value in a list of numbers.

    Args:

        weather_data: A list of numbers.

    Returns:

        The minium value and it's position in the list.

    """

    min = None

    index = None

    for i, value in enumerate(weather_data):

        if min is None or float(value) <= min:

            min = float(value)

            index = i

    return (min, index) if min is not None else ()


def find_max(weather_data):

```

```
"""Calculates the maximum value in a list of numbers.
```

```
Args:
```

```
    weather_data: A list of numbers.
```

```
Returns:
```

```
    The maximum value and it's position in the list.
```

```
"""
```

```
max = None
```

```
index = None
```

```
for i, value in enumerate(weather_data):
```

```
    if max is None or float(value) >= max:
```

```
        max = float(value)
```

```
        index = i
```

```
return (max, index) if max is not None else ()
```

```
def generate_summary(weather_data):
```

```
    """Outputs a summary for the given weather data.
```

```
Args:
```

```
    weather_data: A list of lists, where each sublist represents a day of  
weather data.
```

```
Returns:
```

```
    A string containing the summary information.
```

```
"""
```

```
output = ""
```

```
list_min = []
```

```
list_max = []
```

```
dates = []
```

```

output += f"{len(weather_data)} Day Overview\n"

for day in weather_data:

    list_min.append(convert_f_to_c(day[1]))

    list_max.append(convert_f_to_c(day[2]))

    dates.append(day[0])

    output += f'  The lowest temperature will be
{format_temperature(find_min(list_min)[0])}, and will occur on
{convert_date(dates[list_min.index(find_min(list_min)[0])])}.\n'

    output += f'  The highest temperature will be
{format_temperature(find_max(list_max)[0])}, and will occur on
{convert_date(dates[list_max.index(find_max(list_max)[0])])}.\n'

    output += f'  The average low this week is
{format_temperature(round(calculate_mean(list_min),1))}.\n'

    output += f'  The average high this week is
{format_temperature(round(calculate_mean(list_max),1))}.\n'

    return output

def generate_daily_summary(weather_data):

    """Outputs a daily summary for the given weather data.

    Args:

        weather_data: A list of lists, where each sublist represents a day of
weather data.

    Returns:

        A string containing the summary information.

    """

    results = ""

    for data in weather_data:

        results += f'---- {convert_date(data[0])} ----\n'

        results += f"  Minimum Temperature:
{format_temperature(convert_f_to_c(int(data[1])))}\n "

```

```
        results += f" Maximum Temperature:
{format_temperature(convert_f_to_c(int(data[2])))}\n"

    results += '\n'

    return results
```