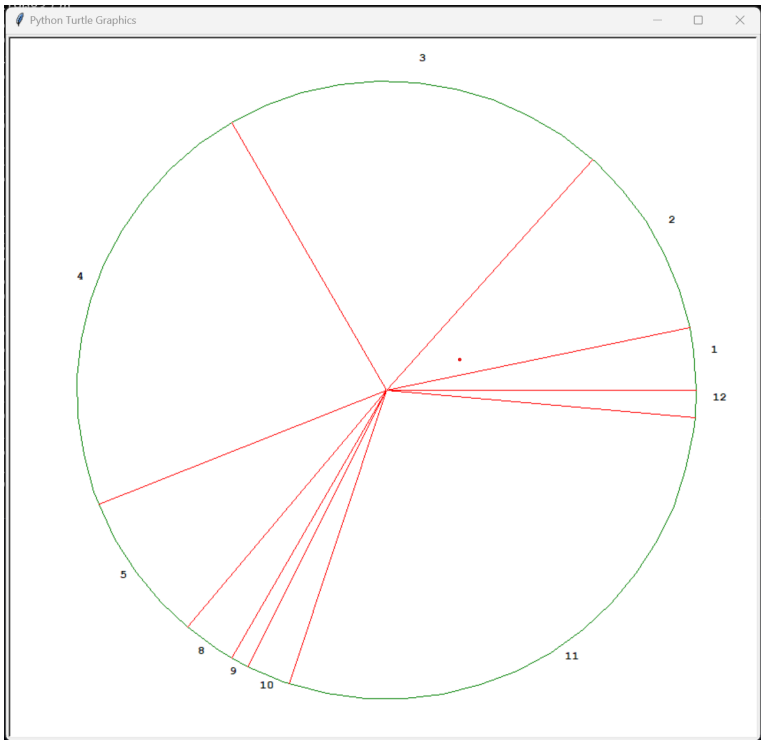
MCS 260 Project Three : Monthly Tornado Fatalities as Pie Chart due Friday 21 July at 10am

The goal of this project is to write Python scripts to make a pie charts of the monthly tornado fatalities. The pie chart shows in which months tornados have been the most deadly. Based on data in the file `2005-2007_torn.csv` (for the years 2005 to 2007), downloaded from `https://www.spc.noaa.gov/climo/historical.html`, the result is the plot shown below:



The solution consists of two `.py` files.

1. The first script reads the `.csv` file and makes a frequency table with the number of fatalities summer for each month. Every line (starting from the second line) on file contains information of each tornado. For this project, the month and number of fatalities are important. The number of each month appears as the third number of every line and the number fatalities is that the 13-th spot. The frequency table is written to file which serves as input for the second script.

2. The second script reads the data of the frequency table, and uses turtle to draw the pie chart as shown above. Observe there are only 10 slices in the pie, as months without fatalities are skipped. The radius of the pie is relative the `window_height()` and `window_width()`: subtract 50 from the minimum of half of the height and width of the turtle window. The `write()` method of a turtle is used as labels of the months.

Some important points:

1. For this project you may work in pairs. A pair consists of two programmers, not three or more. If you decide to work in a pair, then you must send me an email with the name of your partner and with the email address of your partner in the copy of the email, before 5pm on Monday 17 July. If working in a pair, then only one Jupyter notebook should be submitted.

2. Do not submit programs that do not run. It is much better to submit an incomplete program that runs than a program that does not run.

3. You may assume that the users of your program are on their best behavior and enter numbers on input.

4. The pie chart should be as shown above.

5. The first line of your Python program must be

   ```
   # MCS 260 Project Two by <Author(s)>
   ```

   where you replace the `<Author(s)>` by your names.

6. Functions must be used and every function must have a clear documentation string, which explains what the function does. The documentation string must also describe the role of each argument of the function.

7. Upload your solution as a file with the `.py` extension into gradescope before 10am on Friday 21 July.

8. The late deadline is 5pm on Friday 21 July, but solutions that are submitted late are subject to a penalty of 10 points off.

If you have questions or difficulties with the project, please ask for help during office hours.