

## Q5 [5 points] Introduction to Python Flask

In this question, you will build a web application using Flask. [Flask](#) is a lightweight web application framework written in Python that provides you with tools, libraries, and technologies to build a web application quickly and scale it up as needed. The website will display wildlife trafficking data and allow users to filter and explore trafficking volume by different species classes. You will modify the given file: `wrangling_scripts/Q5.py`

Technology	Python <b>3.10.x</b> Flask
Allowed Libraries	<a href="#">Python standard libraries</a> Libraries already imported in Q5.py
Deliverables	<b>Q5.py</b> : Completed Python file with your changes

### Tasks and point breakdown

1. **username()** - Update the `username()` method inside `Q5.py` by including your GT username.
2. Install Flask on your machine by running `$ pip install Flask`
  - a. You can optionally create a virtual environment by following the steps [here](#). Creating a virtual environment is purely optional and can be skipped.
3. To run the code, navigate to the Q5 folder in your terminal/command prompt and execute the following command: `python run.py`. After running the command, go to <http://127.0.0.1:3001/> on your browser. This will open `index.html`, showing a table in which the rows returned by `data_wrangling()` are displayed. You can then choose different species classes from the dropdown and see how the data table updates dynamically.
4. You must solve the following two sub-questions:
  - a. [2 points] Generate a list of unique animal classes for options in the dropdown menu. Sort the list alphabetically.
  - b. [3 points] Filter, sort, and limit the data
    - i. First, filter the data to only the specified class of animal. If no class is specified, include all the data.
    - ii. Next, sort the data by the count column in descending order. You do not need to worry about tiebreaks.
    - iii. Last, limit the data to only the top 10 rows. If the number of rows is fewer than 10 then return all rows.