SI507 - Final Project by Muneeb

Overall

My project will inform the user about the ongoing war in Syria, and it's impact. It will allow users to enter any date between 2013 - 2018 and see what exactly happened on that date in Syria, as well as the aggregated total number of refugees on that date. The user will also be able to learn more about the Syrian war on an About page, and leave a response on an interactive page.

I want to focus on: learning and using a completely new python module, collecting information from user input and sourcing data from a CSV based on that data, allowing the user to send data to the database then see it posted in the app, and using an html template to visualize information in a powerful way.

Interface description

- **Route 1:** /exmaine/thisdayinsyria →
  This page will show information about a particular day in the Syrian war chosen by the user.
  Input: User Inputs April 4
  Output:
  4 April, 2017: The town of Khan Shaykhun came under a heavy air attack, allegedly involving chemical weapons, resulting in up to 100 deaths.
  4,508,414 refugees to date.

- Route 2: /learn/aboutthesyrianwar →
  This page will provide background information about the war in Syria, including text and images, formatted with an HTML template so the information is organized and legible.

- Route 3: /post/yourreaction →
  This page will allow a user to input a written message. It could be their reaction, their experience, their questions. Whatever the information is, will be sent to the

database as a string, then displayed on the flask app so everyone can see each other's response.

Specifics

My project will extract content from several Wikipedia pages called "Timeline of the Syrian Civil War" as well as from the United Nations High Commissioner for Refugees (UNHCR) website. From Wikipedia, the content extracted will include details about the Syrian war (by date), and from the UNHCR website the content extracted will include the aggregated total number of registered Syrian refugees by date.

I will be relying on data from several Wikipedia pages called "Timeline of the Syrian Civil War" as well as from the United Nations High Commissioner for Refugees (UNHCR) website. From Wikipedia, the content extracted will include details about the Syrian war (by date), and from the UNHCR website the content extracted will include the aggregated total number of registered Syrian refugees by date. I will also be relying on data from user input in a form.

Here is an example of the wikipedia information:
https://en.wikipedia.org/wiki/Timeline_of_the_Syrian_Civil_War_(January%E2%80%93July_2015)#2_January
Here is an example of the UN Refugee information:
https://data2.unhcr.org/en/situations/syria

I expect my database schema to include <u>two</u> tables. The entities each table will represent are: Conflict Information which includes a date ID, date, and description, as well as Refugee Information which includes a date ID, date, and number of refugees by that date.

In the Conflict Information table there will be a one to many relationship between date and details. In the Refugee Information table there will be a one to one relationship between date and number of refugees.

I will be populating the database by saving data to a database when it's accessed via wikipedia module. Also by writing a script to load it in to a .sqlite database file from a CSV extracted from the UN Refugee Information website.

I am planning to use the following modules in writing my code, aside from Flask and SQLAlchemy or some equivalent:

- wikipedia - for getting content from wikipedia pages

I will be defining the following functions outside of Flask routes:

1. Wikipedia content extraction/cleaning function that takes Wikipedia url as an input and outputs the relevant content in list form for easy use in the database.

I will be defining the following classes outside of Flask routes/models: N/A

The assignment(s) in 507 we've done that are most like what I want to do are:

- HW 5
- Proj 2
- Proj 3

Other useful resources for this project for me will be:

- https://wikipedia.readthedocs.io/en/latest/code.html#api

Other

My biggest concerns about my work on this project are there will be many Wikipedia pages that require parsing, and the formatting, although similar, is not always the same. It might not be as easy as creating one function to extract and clean the information from any wikipedia url which is inputted. Another concern is taking user entry and displaying it on the website in the interactive route. Only concerned about this because I haven't done it before.

I feel confident that I can complete database creation and creating the relationship between tables, getting data from the database onto the flask app, displaying all the information on the flask app in a meaningful way.

Also, I'm excited for this!!