Flask App Data Diary

Set up the basic code on VS following instructions to develop flask app - https://github.com/jsoma/flask-tutorial

CSV File:

1. Download the data from https://www.bu.edu/gdp/2024/08/21/relative-risk-and-the-rate-of-return-chinese-loans-to-africa-database-2000-2023/

2. Request and data send on the email address

3. Open it as excel on Google Sheet to be readable.

4. Sort the data by most recent- clean it further for any gaps.

5. Download to the desktop again as csv so that running the file as excel does not face any issues- previously ran it as excel encountered issue in tracing the file path

6. The csv file needed permission to be accessed using chmod command on the terminal below in VS code- chmod 605.

7. Had to be assigned to a variable and then code it with pandas for smooth running and accessibility of the file.

HTML page display:

1. The first issue encountered was while running the local host, the data from the csv file did not display on the page. The page only showed an empty table. Issue- I was using sql (.) backend instead of pandas' ([]).

2. The issue was also about naming and matching the files in the html page file in VS code and the excel file - the columns names have to be exact same. Some of the excel names had space after the title, that had to be removed.

3. In addition to this, space within the curly brackets in the loan and cla html files while coding variable need to be removed for then to be displayed. Eg: <td> {{loan['BU_ID']}}</td>

Routes:

1. Setting up routes and rendering them through templates - https://github.com/jsoma/flask-tutorial

2. Issue with "view details" column on route "cla" - did not take me to the loan page. Issue with the app route coded as integer instead of string. The BU_ID column was not just numbers but alpha-numerals.

3. Loan html page styled on loan html file - same issue in display as on cla page due to non-matching of columns and space within the curly brackets. Eg: <li> Country: {{loan['Country']}}

```python
@app.route("/cla/<int:BU_ID>")
def loan_details(BU_ID):
    df = pd.read_csv("cla.csv")
    matching_rows = df[df['BU_ID'] == BU_ID]

    loan = matching_rows.to_dict('records')[0]
    return render_template(
        'loan.html',
        loan=loan
    )
```

Pagination: https://github.com/jsoma/flask-tutorial

 1. Tedious in terms of merging the pagination code with app route code. Went through lot of trial and error and tool help from Chatgpt.

Upload on Github

Render - live website - https://render.com/docs/deploy-flask

File Path (Render):

1. Issue in deploying the web service. Correct the file path using import os and then assigning the path for csv file to a variable which then runs in the data frame (Pandas).

```
csv_path = os.path.join(os.path.dirname(__file__), 'cla.csv')

df = pd.read_csv(csv_path)
```