Submissions:

Brief paragraph explaining the logic for above code:

The HTML code sets up a webpage with a styled form for uploading group and hostel CSV files. Users can submit these files, which will then be processed by the Flask application. The second HTML file displays the final allocation of rooms, using data passed from the Flask backend, and provides a button to download the allocation as a CSV file. The form and display elements are styled with CSS for a consistent and visually appealing user interface.

This Flask application is designed to allocate rooms to groups based on their uploaded CSV files containing group and hostel data. Upon accessing the root URL (`/`), users can upload two CSV files: one for group data and another for hostel data. When the files are submitted, they are read into pandas DataFrames. The `allocate_rooms` function then assigns rooms to each group by iterating through the group data and finding suitable rooms from the hostel data that match the group's gender and have sufficient capacity. These allocations are stored in a global DataFrame, `allocation_df_global`. Users can then view the allocation results on the webpage and download the allocation data as a CSV file via the `/download_allocation` endpoint. The allocation process ensures that each group is matched with an appropriate hostel room based on capacity and gender compatibility.

Instructions to RUN code:

1. The code is stored in this way i.e. hostel_room —> templates and csv files —-> templates contains index.html and allocation.html
2. Open **terminal** and go to the **hostel room** folder
3. Run **logic.py** file with cmd: **python logic.py** (make sure to have all requirements imported)
4. Follow the link of local host generated by the terminal
5. Upload hostel.csv and group.csv files respectively and submit
6. On the next page, you can see the table of final allocation.
7. Hit download button to download the csv file.