Campus Insider Phase 2 Contributions
COS 457/ COS 557
Professor Behrooz Mansouri

Team Members:
- Nathaniel Serrano
- Benjamin Franklin
- Ahmad Mouhsen

Contributions:
- Nathaniel Serrano
    - Implemented the schema for the User entity along with its constraints. In addition, worked with ChatGPT to generate lists of accessibility- and equipment-related tags for the rating_equipment and rating_accessibility tables. These lists of tags were put in large enums that act as check constraints for the tags.
        - user_entity.sql
    - Implemented the following procedures:
        - SearchRoomsByType
        - SearchRoomsBySize
        - SearchRoomsByNumber
    - Wrote the web scraping scripts for USM buildings, rooms, and study rooms across all campuses, along with a basic cleaning/normalizing script for building/room data.
        - Building_scraper.py
        - Building_cleaner.py
        - Study_room_scraper.py
    - Wrote the data insertion scripts for inserting data regarding USM buildings, rooms, and study rooms
        - Insert_rooms.py
        - Insert_study_rooms.py
    - Wrote a Python script to get the largest existing length of a value for each field of a JSON file to validate that data was within limits set by the schema.
        - Data_validation.py
    - Wrote Phase 2's README file on GitHub, including describing the Phase 2 directory structure, database launching instructions, web scraping details, and basic task delegation.

- Benjamin Franklin

  - Created the schema for the university, campus, location, room, building, non-building, and rating tag relations
    - campusInsider.sql (university, campus, location, room, building, and non-building tables)
    - tags.sql
  - Wrote a web scraper with the aid of ChatGPT to scrape most of the colleges in the United States and normalize them into a JSON file with their state, name, and Wikipedia URL
    - college_scraper.py
    - US_colleges.json
  - Optimized queries used by procedures such as SearchRoomsByType, searchRoomsBySize, and SearchRoomsByNumber via indexing
    - QueryOptimization.pdf
    - indices.sql
  - Edited the video to combine and fit all of our talking points
    - CampusInsiderVid.mp4

- Ahmad Mouhsen
  - Create the schema for ratings.
  - Combined all the schemas into a single sql file called Combined Campus Insider and fixed any minor errors.
  - Create the Campus Insider Stored Procedures and Functions Outline.pdf as a guide for all the functions and procedures that are used.
  - Created the Functions.sql
    - Created GetUniversityIDByNameAndState
  - Created the Procedures.sql and checked all the procedures to make sure they work
    - CreateUniversity
    - RemoveUniversity
    - AddCampus
    - DeleteCampus
    - CreateNonBuildingLocation
    - CreateBuildingLocation

- CreateRoom
- DeleteLocation
- CreateUser
- DeleteUser
- AddRating
- DeleteRating
- ShowUniversity
- SearchWithEquipt
- SearchWithAccessTag
- SearchWithRating
- RoomRequest
- Created a room_requests schema in the Combined Campus Insider sql for users to request room additions.