Project Milestone 4

Revised Features List :

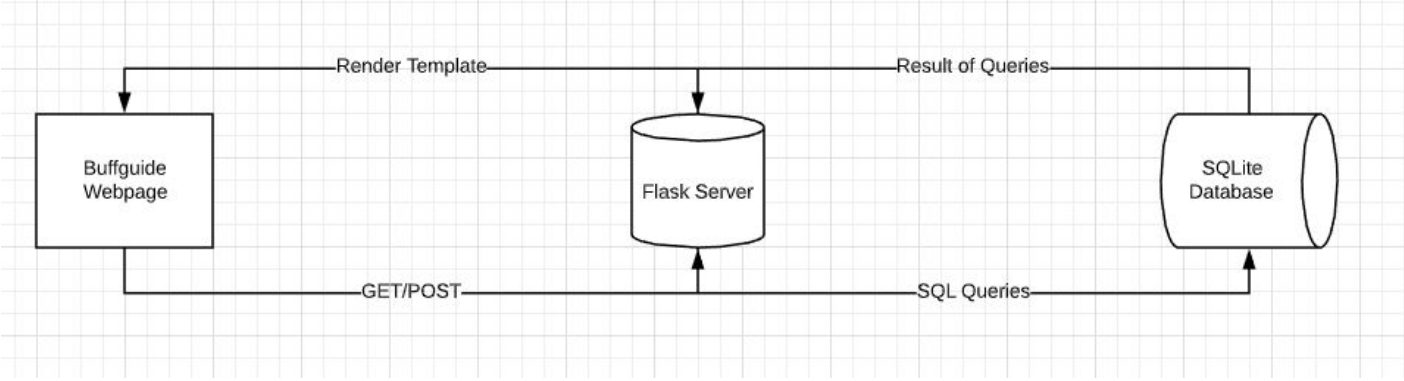
Implemented :

- 1. Database of Nodes
    - Collect and store information about building locations on CU main campus as nodes.
- 2. Database of Edges
    - Collect and store information about distances between nodes (buildings).
- 3. Database of Classes
    - Collect and store information about class information.
        - Class name
        - Location (building node)
- 4. CU campus map Display
    - Visual of CU main campus buildings and walkways
    - Zoom feature
- 5. Web - scraping Data
    - Gathers class information
    - Gathers distance information (edges)
    - Gathers Location information (building nodes)

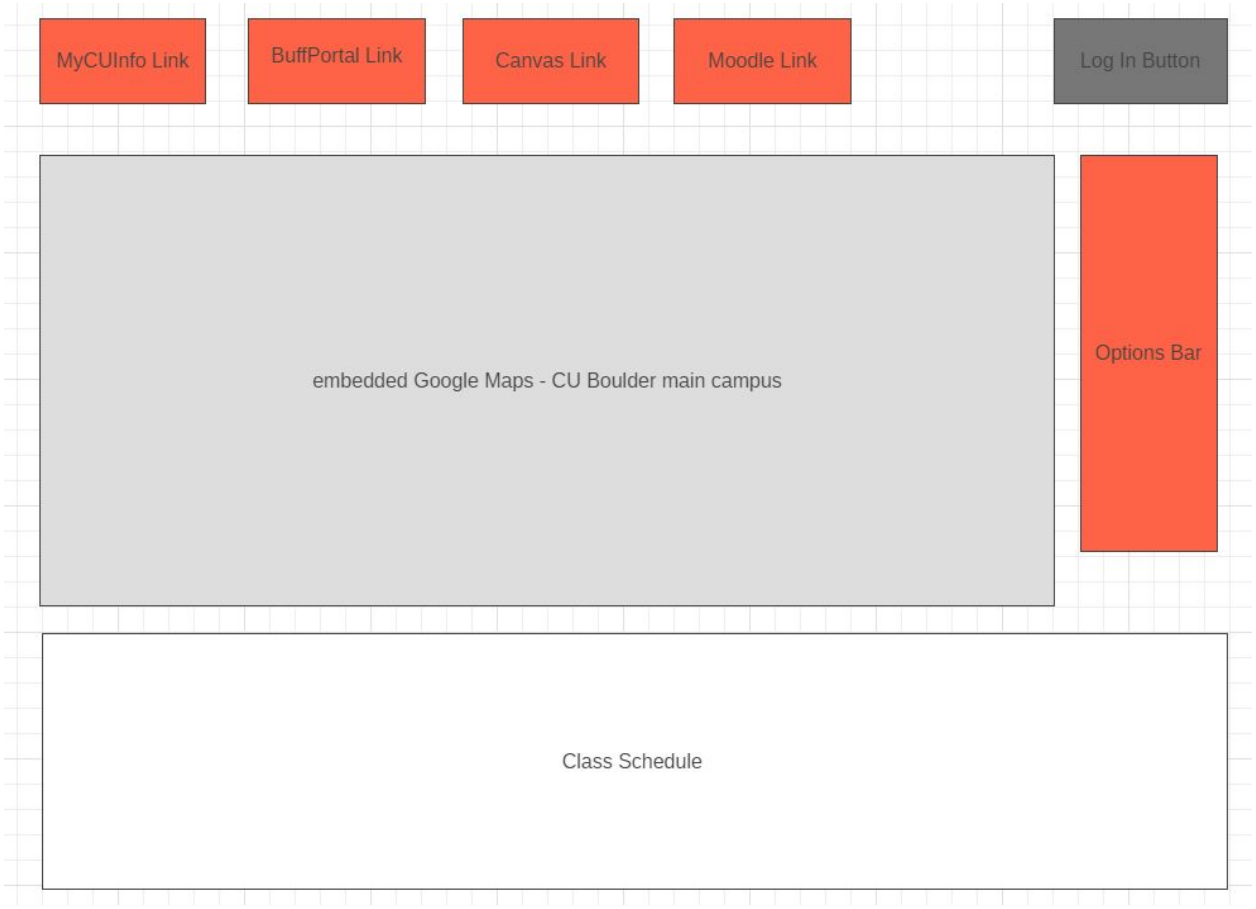
In Progress (TODO) :

- 1. User Interface
    - Embedded class schedule
    - Embedded CU main campus map
    - Toggle buttons for additional features
        - Amenities
        - Bus stops
- 2. Database of Users
    - Stores users login name / password information
    - Stores individual class schedule

Architecture Diagram : Webpage ←Get/Post/Render→ Flask ←SQL Queries via SQLalchemy→ Database (SQLite)



Front End Design : (Wireframe of Front End layout)



Web Service Design :

- Google Maps Javascript Embed API : enables the ability to embed a Google Maps window on page.
- Directions API : Takes endpoints and uses dijkstra's algorithm to find the shortest path using google's known pathways.
- Marker Clustering API (MarkerClusterPlus Library) : Combines many smaller markers(locations) into fewer larger nodes.

Database Design : SQLite via SQLAlchemy. Chose SQLite because of the small amounts of data we are working with