All text in read are notes on the relevant tasks and new additions and/or qualifications.

Directories where code I wrote are specified to make it better for grading.

To get a good look at the app, you can download the IonicView app https://ionicframework.com/pro/view and enter 96169297 as the app id. However, most functions will not work since that requires a database instance of couchdb and I couldn't set up a remote one.

Some dev info if you are curious to build the app:

If you wish to compile the app:

- Install node https://nodejs.org/en/
- Open a terminal to the code directory
- Do "npm install"
- After that's finished, do "npm run ionic:serve", the project should compile
- In a browser, go to localhost:8100
- Browse the app

If you wish to access all functions:

- Install couchdb http://couchdb.apache.org/
- Go to the local.ini and enable cors (https://stackoverflow.com/questions/20897033/how-to-add-cors-in-couchdb-no-access-control-allow-origin-header-is-present)
- Start couchdb as an admin or sudo, it should be in your path. Else, go to the installation directory and then go to the bin folder and start it from there.
- Open another terminal in the couchexports_db directory. Copy/paste each command in commands.txt.
- Go to http://localhost:5984/_utils/#/verifyinstall and do the check to make sure everything went okay.
- Now, all functions should work in the app.

Idea: Use the Ionic Framework to build a campus map and building directory for GSU. The mobile and website apps will depend on data provided and access role for individual users.

Pages:

Register/Login

- Page for registering for the app with a username, password, and email.

- User selects roles that they wish to have. (Student, Admin, Faculty)

- User selects what data they would like to have access to

- Users either login or set up account or resets password depending on their state

Successfully completed. Specific folders/files: login/login.ts, signup/signup.ts, app.component.ts, providers>user-data.ts

Data Selection/Input

- Users use this page to subscribe to what data they would like to have access to in the main view.

- Some data is available to some roles but not others. (e.g. Student role doesn't have access to map points of faculty break rooms)

- Data subscription results in user interface changes in the Main Map View.

Only made a database but did not do anything with it. Specific folders/files : subscribe/subscribe.ts, providers>datasets.ts

Main Map View

- A default map of either OpenStreetMap or a SVG of GSU facilities

- Users can select a building to see its floor map (only specific buildings will have this due to lack of data)

- Selecting a point on the map or asking a query will give an information card of the point of interest. Card will contain tabs based on the data subscribed to on the Data Subscription/Input page.

Partially completed. Specific folders/files: home/home.ts

Access Provider

- only available to users with Admin role.

- Can control what data gets accessed by all other roles.

- Can edit, add, or delete data that can be subscribed to.

Incomplete. Did not create admin role.

Database Model:

<u>Tables</u>

Instead of mysql command line, couchdb uses curl commands to issues commands to database manipulation via http endpoints. Also, couchdb's query language is javascript and contained in views and view functions.

I've enclosed the database documents that can be used to create a couchdb instance as well as posted them here (since they're small).

- Accounts: self explanatory

  - Username, Password, Email, Role, Datasubscriptions

- DataTopics: master list data subscription sources, each individual dataset will be a table that has a foreign key referencing to this table

  - Dataset_ID, Dataset_Name, Dataset_URL

- DataAccess: Controls what role has access to which DataTopics

  - Role, Dataset_Name (Foreign Key)

- Dataset_{Name}: Name is definable like Dataset_Parking. Any dataset provided can be portrayed as points in the map and tabs in the card.

  - Datapoint, Datadescription, Datatitle, Dataid

Accounts:

```json
{
    "id": "org.couchdb.user:codefluent",
    "key": "org.couchdb.user:codefluent",
    "value": {
        "rev": "1-129d144c43e0a557f060c4ed411f0fe2"
    },
    "doc": {
        "_id": "org.couchdb.user:codefluent",
        "_rev": "1-129d144c43e0a557f060c4ed411f0fe2",
        "name": "codefluent",
        "roles": ["user"],
        "type": "user",
        "datasub": [],
        "password_scheme": "pbkdf2",
        "iterations": 10,
        "derived_key": "537f2f278d0cede817a56294358e8fb28d60531a",
        "salt": "e43ff27e223f7611c706121d1b46ecbe"
    }
}
```

Feed (datatopics):

```json
{
    "total_rows": 3,
    "offset": 0,
    "rows": [{
        "id": "46cc489dd19564f49308ca6d6b0024eb",
        "key": "46cc489dd19564f49308ca6d6b0024eb",
        "value": {
            "rev": "2-ab0582e3d1b9baad9daa1a52f39c40d1"
        },
        "doc": {
            "_id": "46cc489dd19564f49308ca6d6b0024eb",
            "_rev": "2-ab0582e3d1b9baad9daa1a52f39c40d1",
            "geopoint": [33.752843, -84.385642],
            "title": "Chicken 4 Freeeee!!!!111!1",
            "datasets": [],
            "description": "Hi guys, this is a little, small-time resturant called CHICK-FIL-A! loL. They're giving out free sandwiches right now! #freegrub. 😂😂😂"
```

```
        }
    },
    {
        "id": "46cc489dd19564f49308ca6d6b010e94",
        "key": "46cc489dd19564f49308ca6d6b010e94",
        "value": {
            "rev": "2-152b225c80b4d05b4a39dd1798a4c156"
        },
        "doc": {
            "_id": "46cc489dd19564f49308ca6d6b010e94",
            "_rev": "2-152b225c80b4d05b4a39dd1798a4c156",
            "geopoint": [46.770913, -92.122824],
            "title": "Piedmont is okay.....",
            "datasets": ["Freegrub"],
            "description": "Food is food I guess."
        }
    },
```

Datasets:

```
{
    "total_rows": 1,
    "offset": 0,
    "rows": [{
        "id": "46cc489dd19564f49308ca6d6b004532",
        "key": "46cc489dd19564f49308ca6d6b004532",
        "value": {
            "rev": "1-3fdf810e1f580d3ea2812d5b90d274bc"
        },
        "doc": {
            "_id": "46cc489dd19564f49308ca6d6b004532",
            "_rev": "1-3fdf810e1f580d3ea2812d5b90d274bc",
            "feed_items": [],
            "name": "Freegrub",
            "description": "Free food all around GSU."
        }
    }]
}
```