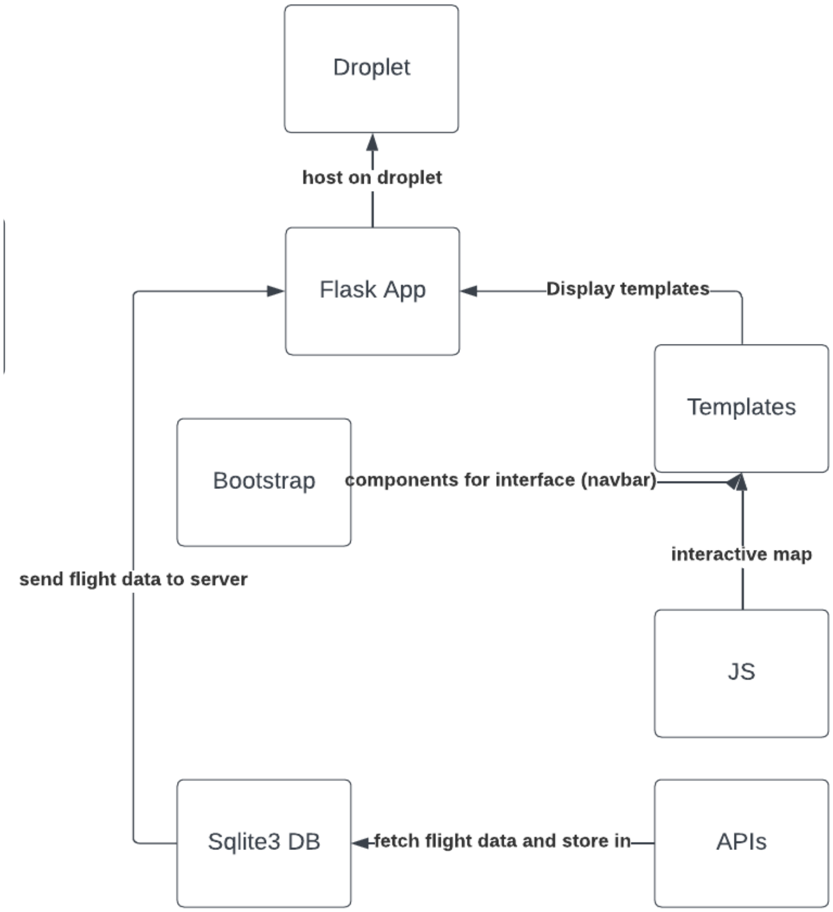
coMBAT TAMBourine: Anson Wong, Mahir Riki, Talia Hsia, Brian Chen
Softdev PD2
2023-05-01
Target Ship Date: 2023-06-01

Program Components:

- flask app (__init__.py)
    - Db_builder.py
        - Populate database
- html templates
    - landing/map.html
        - Interactive live map of current flights(in air)
        - Able to select on a flight icon
            - Redirect to flightinfo.html
        - (maybe)Able to select on airport and only look at outgoing/incoming flights for specific airport
    - Login.html
        - Login page
        - Able to bookmark/highlight specific flights
    - flightinfo.html
        - Displays information on selected flight
            - Flight Number/Code
            - Airline
            - Scheduled & Estimated Arrival/Departure time
            - Departure vs Arrival Airport/location
        - Pulls from (Aviation Stack API)
    - airportinfo.html
        - Scheduled flights in and out of an airport
    - search.html
        - By airport(departure or arrival)/flight number
- CSS files (/static)
    - Using bootstrap (see front end framework)
- API keys (.txt)
    - OpenSkyNetwork.txt
    - AviationStack.txt
    - Maps.txt
    - See API Keys for more details
- JS (/js)

  - Using to add an interactive map onto our site (this will go onto the homepage)
  - Responsive flight icons and navbar when hovered over

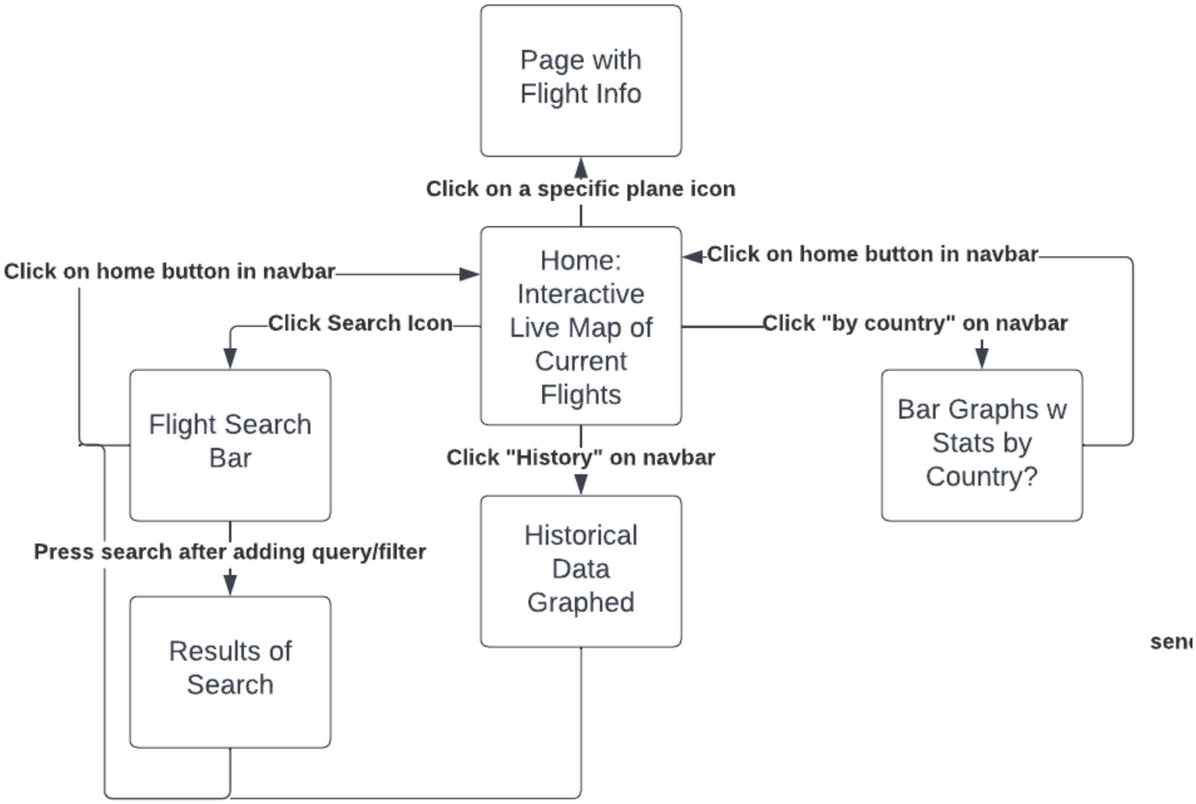
Component Map (Visual):

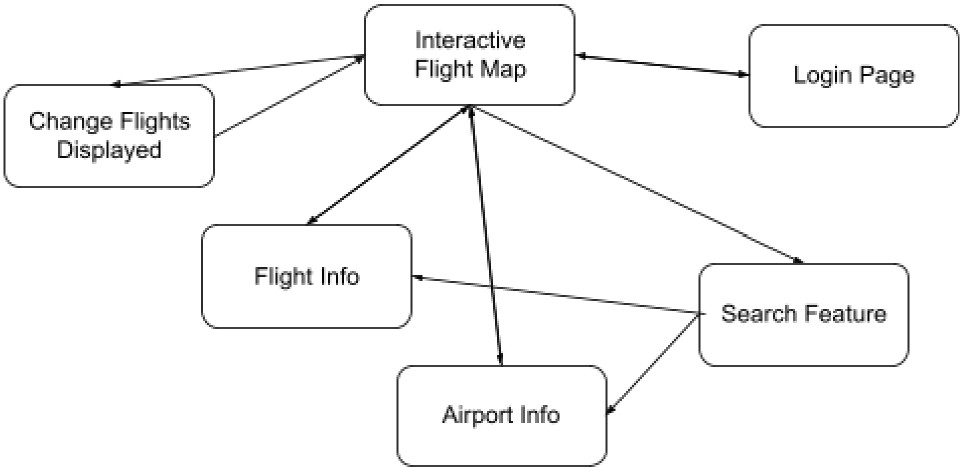


Database Organization:

We will use sqlite3 to create a table of all the flights, with each flight being its own row with its _id, flight date, flight status, departure time, arrival time, country, latitude, and longitude.

Site Map (Visual):


Page with Flight Info
Click on a specific plane icon
Click on home button in navbar
Home: Interactive Live Map of Current Flights
Click on home button in navbar
Click Search Icon
Click "by country" on navbar
Flight Search Bar
Bar Graphs w Stats by Country?
Click "History" on navbar
Press search after adding query/filter
Historical Data Graphed
sen
Results of Search



Front End Framework:

Bootstrap, our members have more experience using it and feel that it has clear documentation. We especially plan on using it for how the user navigates to different sites (navbar).

APIs:

OpenSky Network API- live airspace information
Aviation Stack API- aviation data (likely using for live flight status, historical flights, and routes)

- We have included both since they both have usage limits.

(Google) Maps API- has features to render objects into map; calculate information like distance matrices

Task Breakdown:

Anson - populating database from API
Mahir - js (map for homepage)
Talia - html template and flask app
Brian - database creation and management