Air Traffic Management System (ATMS)

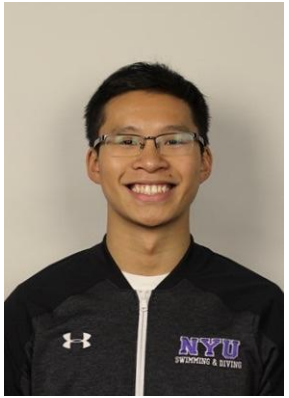
Faizan Hussain, Hriditaa Dekate, Neh Kundalia, Nick Tran

Our Team

Hriditaa Dekate
UI/UX Designer and Front-End Developer

Faizan Hussain
Testing and Back-End Developer

Neh Kundalia
Lead Developer



Nick Tran
Front-End Developer

Why should you be interested?

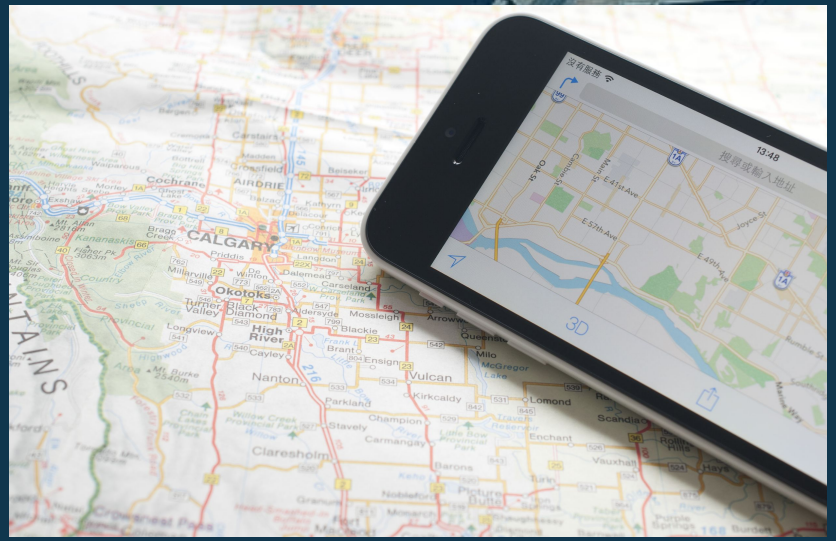
Some Statistical Insights

- In 2019, almost 20% of the flights in the U.S. were delayed.

- JFK accounted for over 20,000 of those.

Status Quo

- Can you remember the last time you reached into the glove compartment of your car and pulled out a paper map?
- As the technology around us evolves, so do we. We advance to meet the changing times and take advantage of the newest device's technology has to offer.

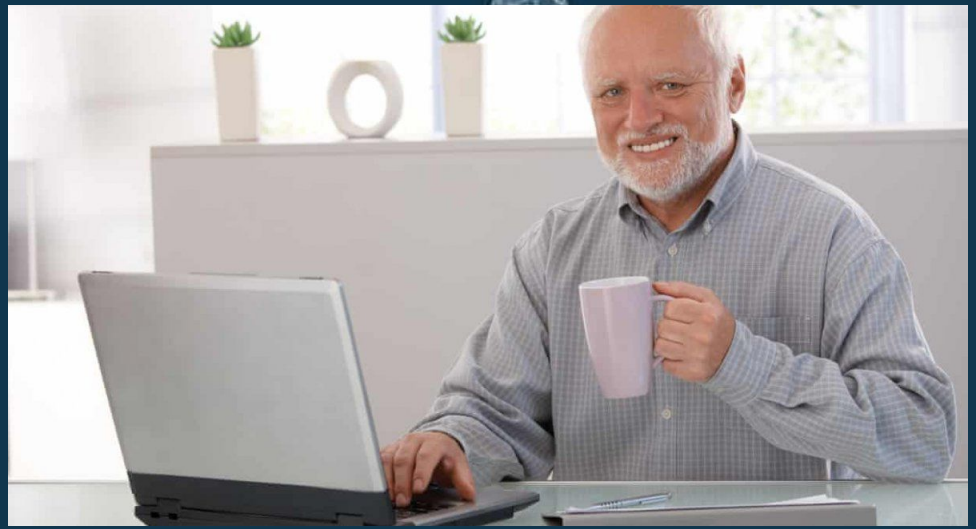


How does it affect the industry?

“Passengers burn $17 billion a year from delays, cancellations and missed connections, adding up to $30 billion in losses to the US economy.”

What can we do?

- Our product aims to take advantage of this opportunity in order to make flying better for everyone.
- Imagine a world without flight delays!



Can it be made better?

- We made a system that is more efficient without compromising on security.
- We let software do the bulk of the management, but with human oversight.

ATMS Functions

- Provide secure login and access to the system based on different users
  - Admin
  - Air Traffic Controllers
  - Pilots
- Provide automated assignment to gates and runways based on availability
- Maintain runway and gate information
- Allow the ATC to override system assignments in case of emergencies
  - Aid the human control by showing the availabilities in runways and gates

ATMS Non-Functional Requirements

- Quick and responsive interface
- Secure Login and Authentication
- Web application and backend infrastructure will be available 24/7

Tech Stack

1. Python
2. Flask
3. MongoDB / Pymongo
4. Heroku
5. Travis
6. Git and GitHub

Flask

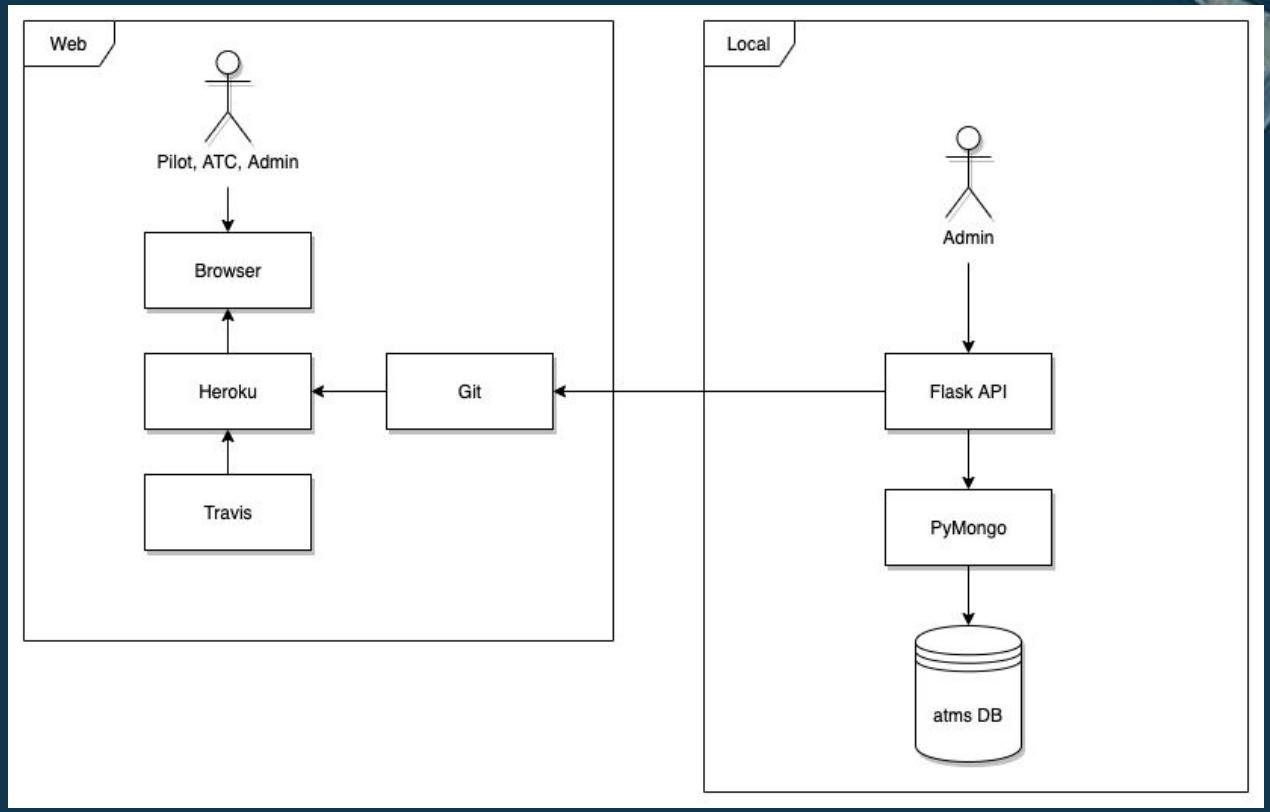
mongoDB.

HEROKU

TRAVIS

GitHub

Component Diagram



Walkthrough

https://jfkatms.herokuapp.com/

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