Technical details

- AWS M5stack is connected to GPS sensor
  - Latitude
  - Longitude
  - Timestamp
- AWS M5stack publishes to GCP every 10 sec
- Post data processing using big query in GCP
- Additional tables to record rides, boats and members
- Streamlit app
  - Has GCP credentials
  - Is launched from Github repository
  - Loads data from GCP to dataframes to allow flexible data related operations

Reflections - tech

If this was a real app where each boat is equipped with an IoT device, following thoughts and questions

- Ideally an user interface on the IoT device to input members' names
- Ideally 2 way communications, e.g. IoT device <-> Web app
- How to update and process the data real time? Performance?
- Should I query from GCP or should I load the GCP to dateframes?
- How much would GCP cost in the end?
- …

Reflections - design

- Tab view is likely not the best design
- Zoom level of a map is not ideal
- Arrangement of a map and a bunch of numbers is tricky
- Colour schema…

-> that's why UI/UX design is a job :-)