Project Requirements

- You should create an API server.
- It should implement CRUD (**create**, **read**, **update**, **delete**) operations on a related set of data stored in a database.
- You should be able to deploy the project to the cloud using CI/CD.
 - o Pipeline
 - continuous integration and continuous deployment
 - There will always be a stable version and the new version must pass all tests and successfully build
- There should be a dozen or more **endpoints**.
 - o "an endpoint is simply one end of a communication channel"
 - "An endpoint is a URL pattern used to communicate with an API."
- Each endpoint as well as all other functions should have unit tests.
 - "Unit testing takes source code, data, and testing procedures and executes a computer process that checks the source code's ability to perform its purpose."
- Each endpoint should be thoroughly documented for Swagger.
 - "Swagger is a set of open-source tools built around the OpenAPI Specification that can help you design, build, document and consume REST APIs"

Meeting Notes

Meeting 3: 10/20/23

- NEW PROJECT TOPIC: Jack of All Trades --> life skills
 - o emergency resources/services, taxes/finances, etc.
- Research
 - o creating a database
 - o similar platforms like Coursera
 - o tools to get information -- data-scraping tools
- Code
 - o practice mongodb code
 - o front end, back end
 - o API server
 - o html, css, javascript

TASKS

- Semi
 - research about scraping, timeline, readme
- Christy
 - o endpoints, mongodb/flask and other platform research
- Nishma
 - o mongodb test code, research UX/UI
- George
 - o diagram/architecture, research Al implementation
- Meet with professor/TA about changing topic
- New meeting time

Meeting 2: 10/13/23

Problem with the current idea (Rover)

- not sure of getting dozen endpoints
- too board to approach

New Topic Ideas

- Medical related?
 - Use 2D xray images and convert to 3D model
 - o telemedicine platform
 - medication management
 - o mental health + wellness
- discuss more for new topic
 - o 14th 8:30pm

TO DOs

- Schedule New Meeting Time
- everyone commit ...
 - o 1 Rover research
 - 1 New Topic research
- George
 - Rover Diagram Update & database structure
- Nishma
 - o research on MongoDB
- Christy
 - API Research
- Semi
 - Meeting Note & API Research

Meeting 1: 10/6/23

Endpoints

- Video Streaming Video
- Sensory data database
- Users (view/send request permissions)
- Rover (database of rovers and their collected information)
- Telemetry display

Project Final Look

- Rover needs to move to a specified location autonomously
- Send packages to the server as a continuous update as well as a request for its next instruction
- Should have a live video feed
- Telemetry Display
- A user login system
- Live update of rover position

Timeline

Design Documents

Diagrams

Endpoints

- Video Streaming
- Sensory data database
- Users (view/send request permissions)
- Rover (database of rovers and their collected information)
- Telemetry display
- Navigation Control
- Package Management
- User Profile & Authentication
- Alerts/Notifications/Feedback

Product Description

Rocket specification sheet: (friendsofamateurrocketry.org)

Work Division (for 10/8)

- Semi
 - Initial commit for README
 - Rough Timeline
- George

- Rover End-to-End Diagram
- Project Components Diagram
- Christy
 - Document meeting notes
 - Research (Locomotion? API)
- Nishma
 - Brainstorm more endpoints + uses
 - Research (Streaming?) PDF