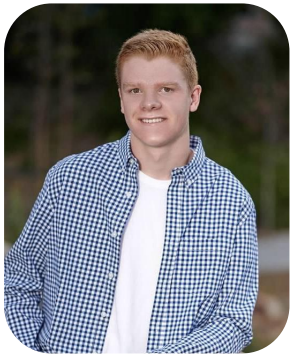
Lightning Bolts Present MusicVerse

CSCI 3308
Summer 2023



Sean, Max, Mark,Yuzhou

MusicVerse

Agenda

- Vision
- Tools
- Challenges
- Demonstration of your project
- Q&A

MusicVerse

An online collection of easy to read sheet music for a variety of genres

Vision

- To provide quality sheet music for all the world's musicians

Motivation

- Developing proficiency in web-based music score rendering
- Creating a valuable platform for musicians
- Overcoming challenges and completing a complex project

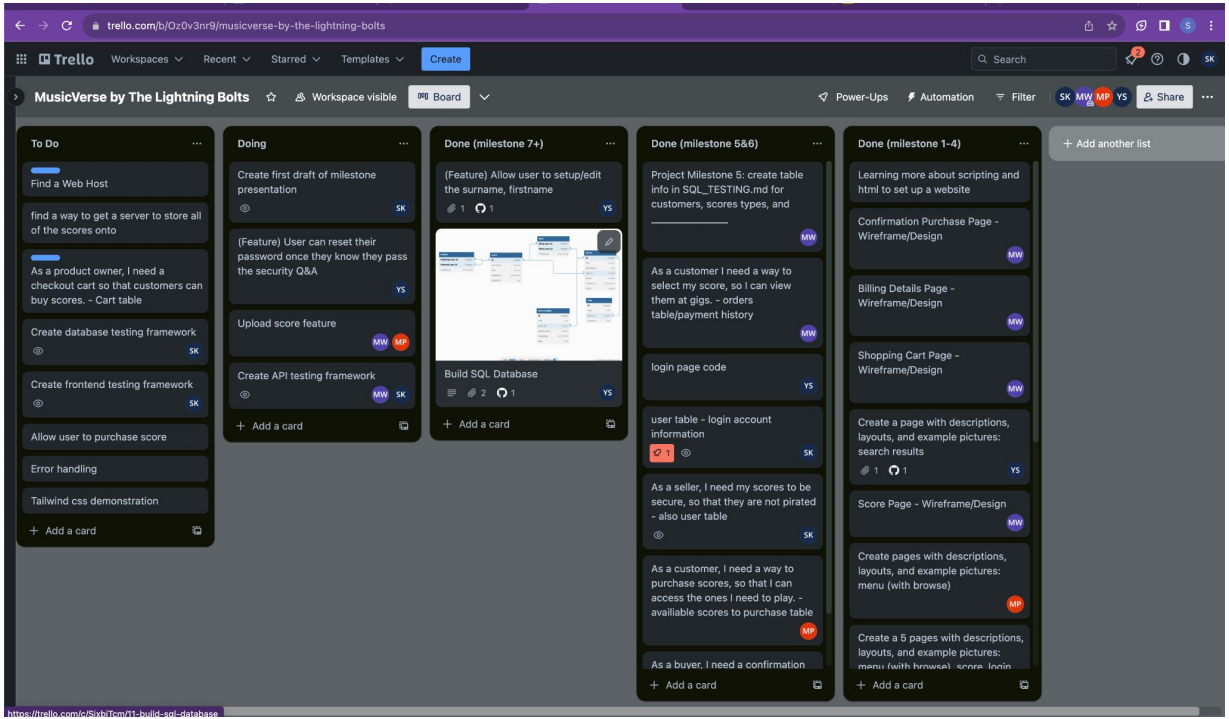
Tools

- Github - mark
- Render - yuzhou
- Trello - mark
- Slack - Sean
- VS Code - sean
- pytest - sean
- Flask - sean
- Vite, React.js, Tailwind css - yuzhou
- Pdoc, SwaggerUI - yuzhou
- Zoom - max

Trello

Backlog

- User Stories
- Iterations
- Feature Documents
- Task Assignment

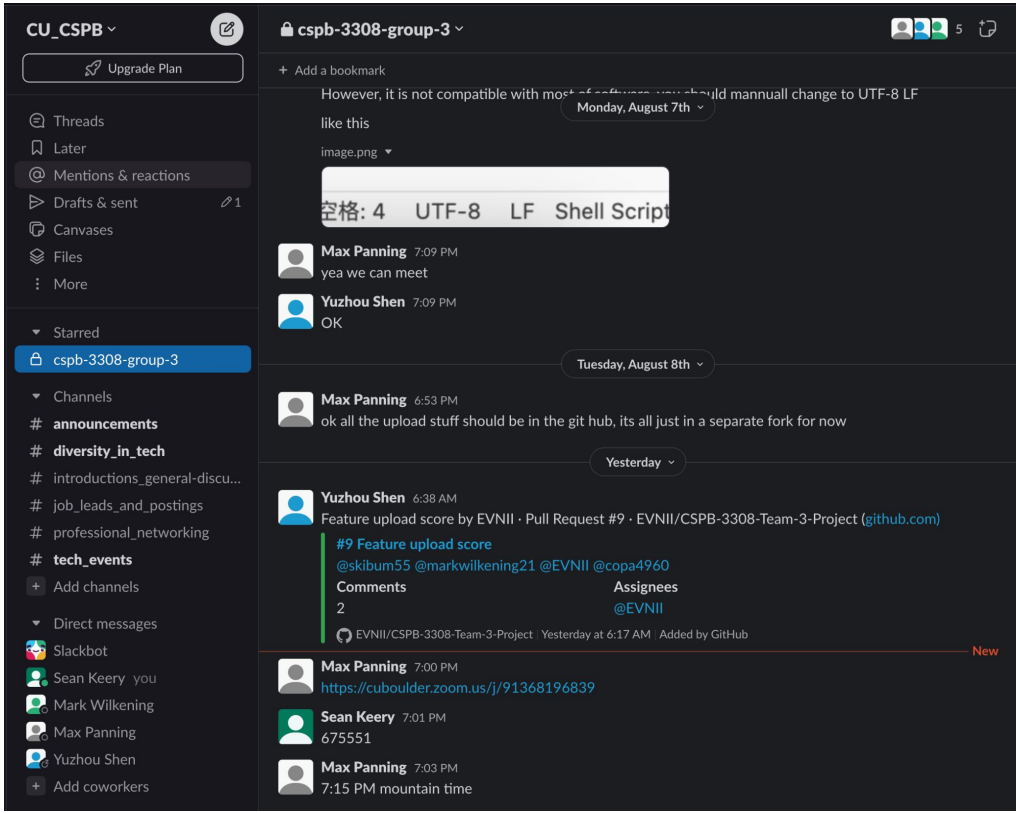


https://trello.com/b/Oz0v3nr9/musicverse-by-the-lightning-bolts

Slack

Chat

- Offline Comms
- File Sharing
- Historical Record

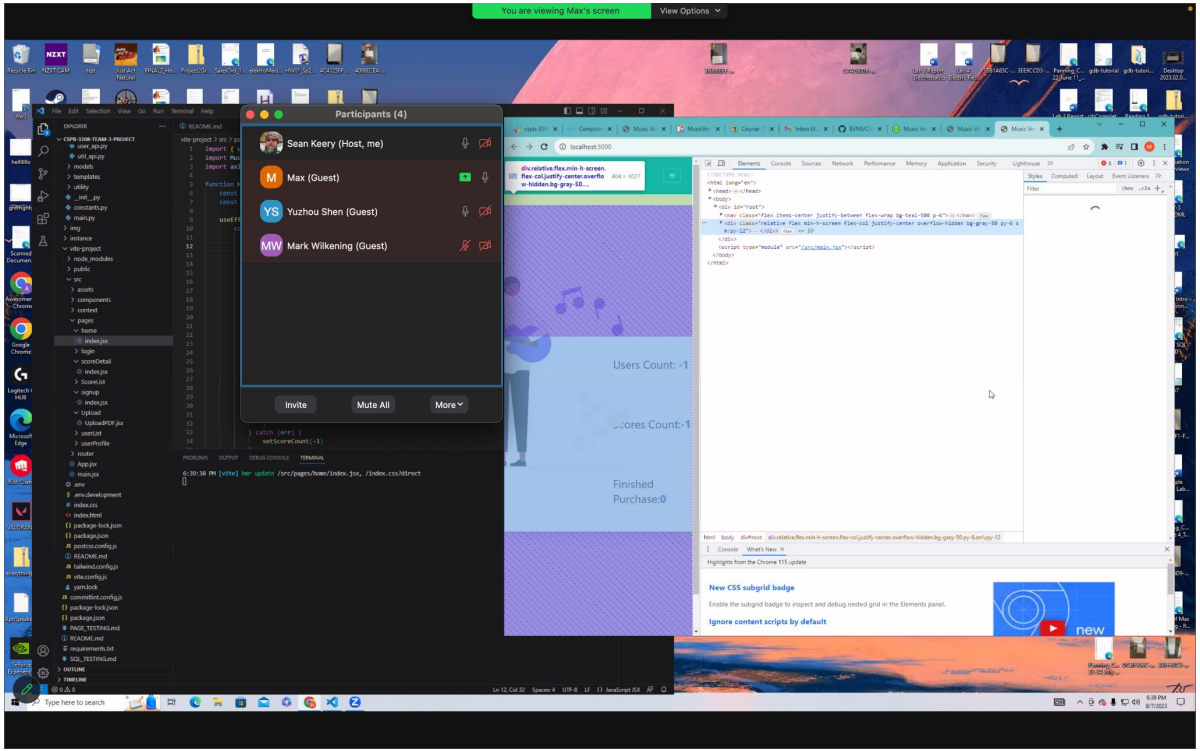


https://cu-postbacc.slack.com

Zoom

Real Time Collaboration

- Standup
- Code Review
- Demo Walk Through

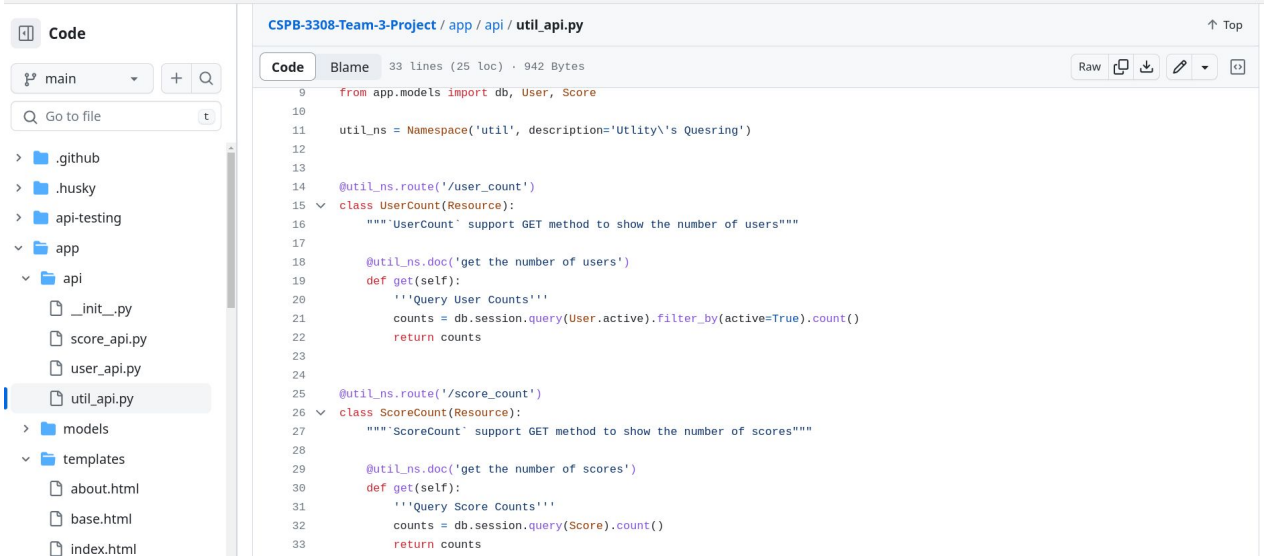


https://zoom.us/

Github

Version Control

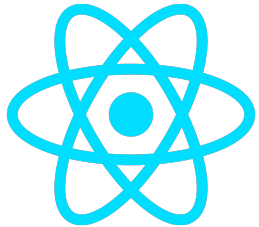
- Track Changes
- Approve Updates
- Collaborative Coding
- Merging/Branches



FrontEnd Toolchain:

Vite : Build the environment for React.js, etc

React.js : Javascript Single Page App Framework

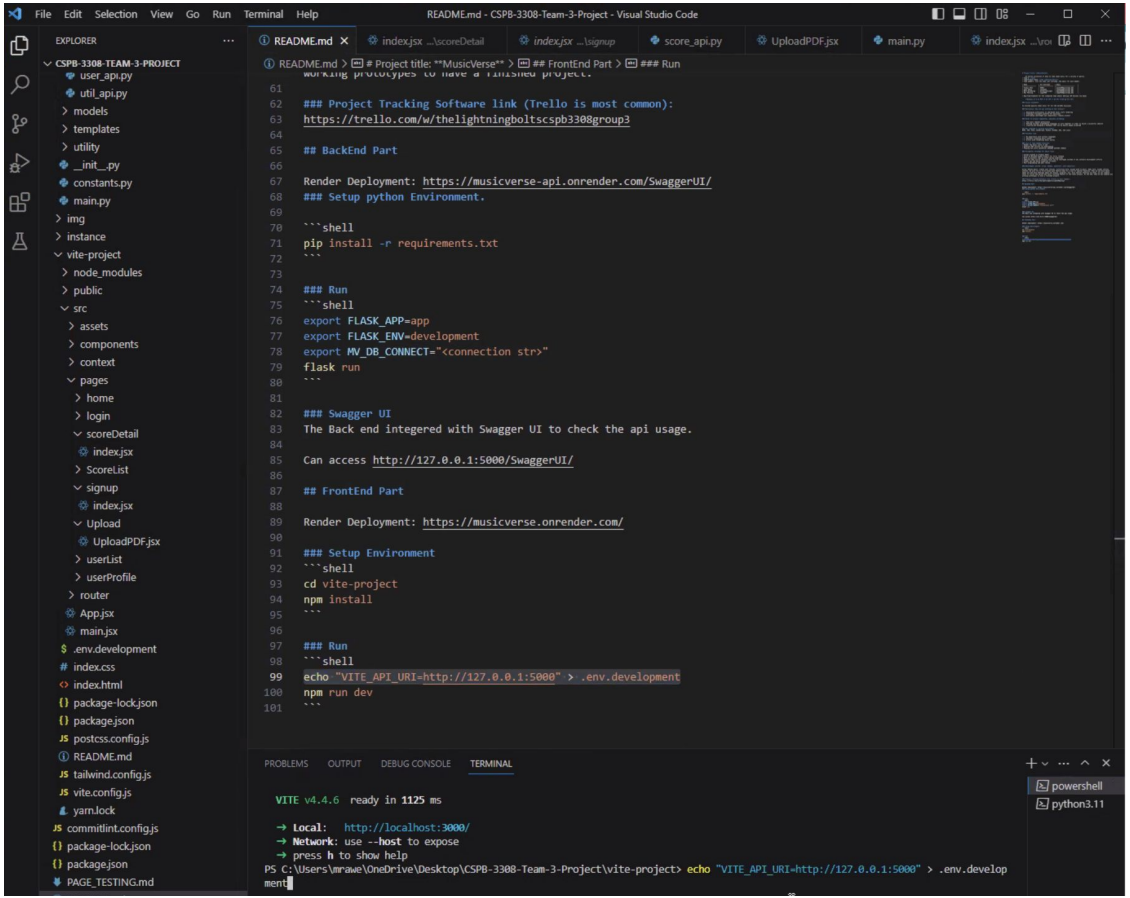


Tailwind css : A CSS Framework providing Atomic css classes

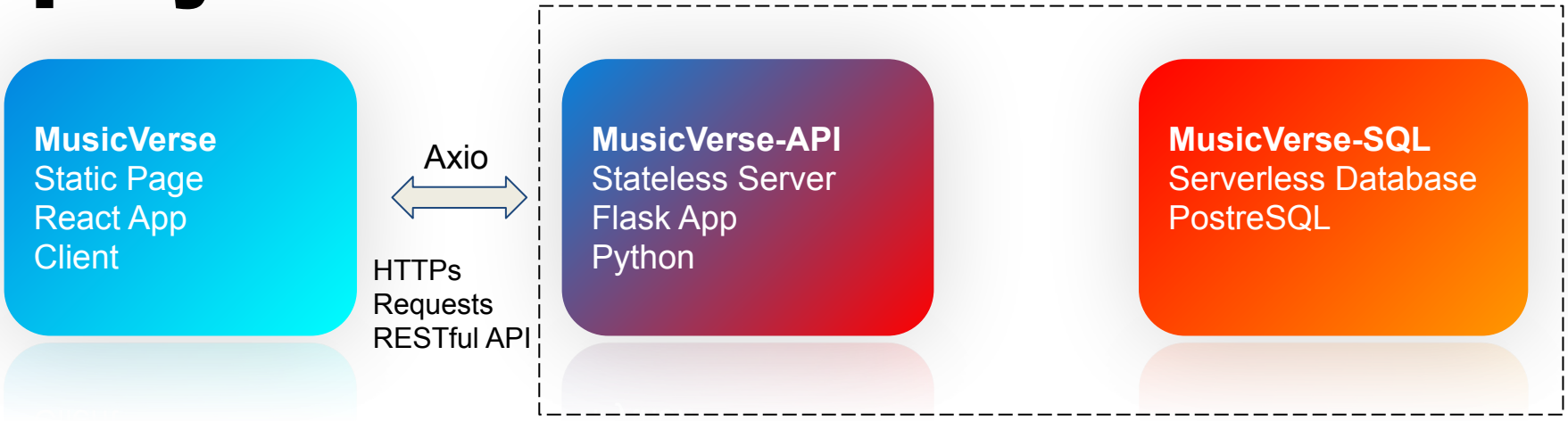
VSCode

Integrated Development Environment

- CSEL Jupyter
- Desktop
- Github Codespaces



Deploy It On Cloud - Render



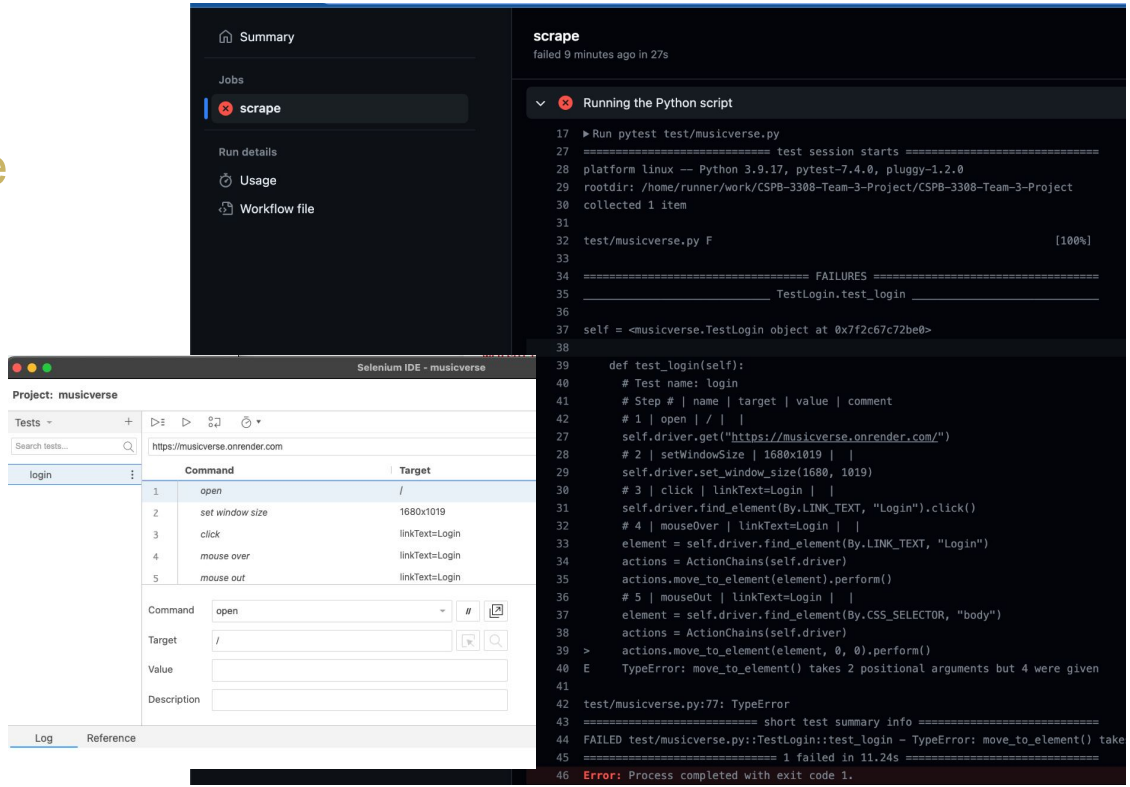
NAME	STATUS	TYPE	RUNTIME	REGION	LAST DEPLOYED ↓	
MusicVerse-API	Deploy succeeded	Web Service	Python 3	Oregon	a day ago	•••
MusicVerse	Deploy succeeded	Static Site	Static	Global	a day ago	•••
MusicVerse-SQL	Available	PostgreSQL	PostgreSQL 15	Oregon	4 days ago	•••

https://dashboard.render.com/login

pyTest

Unit, User and Database Testing

- Selenium Recorder
- Selenium
- Github Workflows

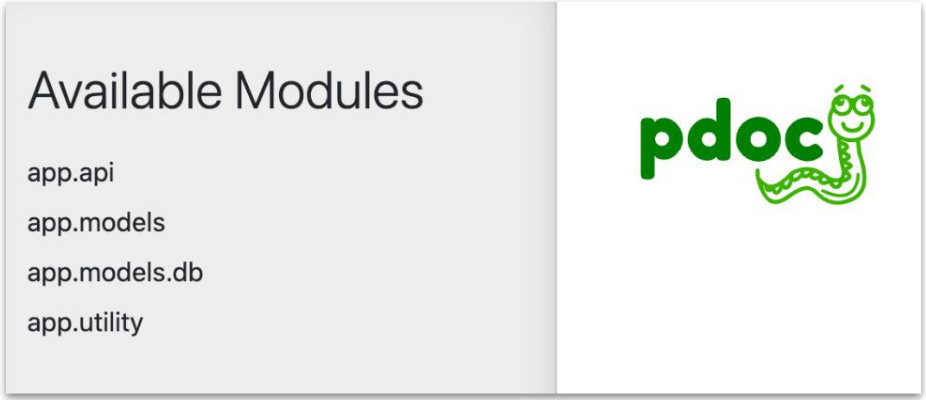


https://pytest.org/

Auto Documentation:

Pdoc : For Python

[Module List – pdoc 14.0.0 (evnii.github.io)](#)

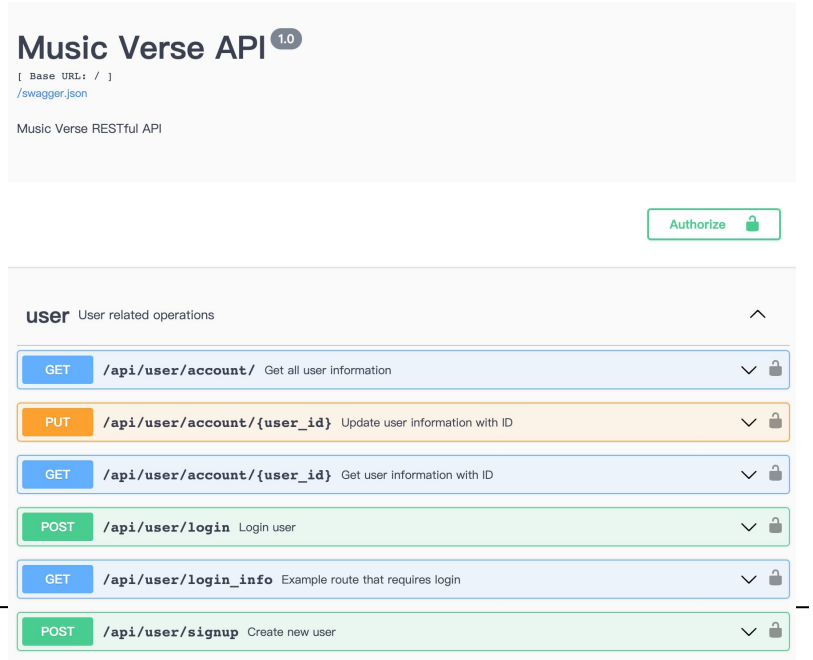


Generate Via Github Action

SwaggerUI : For RESTful APIs

[Music Verse API (musicverse-api.onrender.com)](#)

Launch With API server



Challenges

- Test Automation
- Task Assignment/To-Do
- Version Control
- Encoding Issue

Demo

Q&A