

## Objective

For my senior project, I aim to create a Discord bot capable of completing Discord server administration tasks alongside having a suite of convenience commands. I am mainly doing this because the vast majority of Discord bots that already exist do read all user data posted to a server and create a potential security risk. This is because a lot of bots will mine all of the messages in a server for user data. They will look for personal information such as usernames, emails, passwords, addresses, names, and other such pieces of information that they will then sell to third parties under the guise that it is only to pay for the upkeep of their bot servers. While this is understandable from an upkeep point of view, I would much rather just host my own bot instead of having to worry about what I post.

## Technologies

In order to do this, I am going to be using Discord.js which is a Node.js package to make a Node.js server that will be able to hook into a Discord server. I will also be using MySQL for any persistent data storage. In order to accomplish more specialized features such as weather lookup, I will be hooking into web apis as needed.

## Hope to learn

I mainly hope to learn about using various web based apis and how to better utilize documentation. I also wish to familiarize myself more with Node.js as it has been a while since I have done anything in it and hope to pursue web development after I graduate.

## Features

### Information Grabbing

Time (1) - Displays the current time

YouTube playback (20) - Plays the audio from a youtube video over voice chat

Play videos through voicechat (15)

Stop controls (5)

The following are calls to web apis that require pre/post processing

Weather information (5) - Provides weather information for a given location

Ascii art of words (5) – provides the ascii art form of a word

Random jokes (5) – provides a random joke

Random facts (5) – provides a random fact

Pokemon stats (10) – provides the base stats for a given pokemon

Wikipedia search (10) – pulls a snippet from Wikipedia about a subject

Trump quotes (5) – provides a random trump quote

Random Taco Recipes (5) – provides a random taco recipe

Trivia (5) – provides a trivia question with a hidden answer

Nasa picture of the day (5) – provides the picture of the day from nasa

Meme (5) – provides a random meme from reddit

Code documentation search (15) – returns information about a class, function, or tag

Java (5)

PhP (5)

Html (5)

Convenience

Ping Pong (20) –includes all of the basic server setup, registering/setting up the api keys for discord and getting it to a point where it can respond to a user message

Dice roller (1) – rolls a number of dice and returns the value

Magic 8 ball (1) – returns a magic 8 ball answer to a question

ToDo list (10) – stores a todo list on a per user basis that can be edited/viewed

Server Administration

Create channels (5) – create a voice/text channel

Create roles (5) – create a role

Remove inactive users (5) – kick users based off of inactivity

Assign roles to users (10) – assign roles to users

Member lists filtered by status (5) – list members by status

Ban user (5) – bans a user from the server

Kick User (5) – kicks a user from the server

Mute User (5) – mutes a user in voice chat

Unmute User (5) – unmutes a user in voice chat

Clear messages in a channel (5) – clears all messages in a channel

Help documentation (20) – list commands, what they do, and the syntax for each of them

Total: 209 (42% increase from previous revision)

**Grading**

A- 181-209 (previously 123-148)

B- 156-180

C- 131-155

D- 112-130

F- <111