



ROOMMATE HELPER

6/01/2022

Team name: Super Power Rangers

Team member names:

- Ryan Chow (Product Owner)
- Timothy Ding
- Randy Kim
- Ferdinand Adell
- Justin Leung



Introduction to Roommate Helper

- Motivation
 - Personal issues in a roommate situation
 - i. Lack of venmo
 - ii. Way to keep track of who is on garbage duty
 - iii. Decide on places to eat
- Intended users
 - Roommates
 - Discord Users



Goals

- Achieved
 - Scheduler
 - Debt tracker
 - Polling system
 - Weather forecast
 - Finding locations of interest
 - Rule board
 - CI/CD to Microsoft Azure



Biggest Challenges/Accomplishments

- In Development
 - Learning APIs to implement features
 - Working around different options
 - Pickle vs SQLite
- For the final product
 - We met our MVP requirements
 - Added additional features (ie. music)



DEMO - Debt System

 **Ryan** Today at 2:36 PM
=checkdebt

 **@Ryan** =checkdebt

 **(Ryan) RoommateHelper BOT** Today at 2:36 PM
No current debts.

 **Ryan** Today at 2:37 PM
=setdebt Ryan 100 monthly utilities

 **@Ryan** =setdebt Ryan 100 monthly utilities

 **(Ryan) RoommateHelper BOT** Today at 2:37 PM
Set debt for Ryan of amount \$100.00 with note: monthly utilities.

 **Ryan** Today at 2:37 PM
=setdebt Tim 21.11

 **@Ryan** =setdebt Tim 21.11

 **(Ryan) RoommateHelper BOT** Today at 2:37 PM
Set debt for Tim of amount \$21.11 with note: None.

 **Ryan** Today at 2:37 PM
=checkdebt

 **@Ryan** =checkdebt

 **(Ryan) RoommateHelper BOT** Today at 2:37 PM
Current Debts
Ryan owes \$100.0. Note: monthly utilities
Tim owes \$21.11. Note: None

 **Ryan** Today at 2:38 PM
=changedebt Ryan 104.55

 **@Ryan** =changedebt Ryan 104.55

 **(Ryan) RoommateHelper BOT** Today at 2:38 PM
Adjusted debt for Ryan by 104.55. New debt: 204.55.

 **Ryan** Today at 2:39 PM
=changenote Ryan 2 months utilities

 **@Ryan** =changenote Ryan 2 months utilities

 **(Ryan) RoommateHelper BOT** Today at 2:39 PM
Adjusted note for Ryan. New note: 2 months utilities.

 **Ryan** Today at 2:39 PM
=checkdebt

 **@Ryan** =checkdebt

 **(Ryan) RoommateHelper BOT** Today at 2:39 PM
Current Debts
Ryan owes \$204.55. Note: 2 months utilities
Tim owes \$21.11. Note: None

 **Ryan** Today at 2:39 PM
=removedebt Tim

 **@Ryan** =removedebt Tim

 **(Ryan) RoommateHelper BOT** Today at 2:39 PM
Removed debt for Tim.

 **Ryan** Today at 2:39 PM
=checkdebt

 **@Ryan** =checkdebt

 **(Ryan) RoommateHelper BOT** Today at 2:39 PM
Current Debts
Ryan owes \$204.55. Note: 2 months utilities

 **Ryan** Today at 2:40 PM
=cleardebt

 **@Ryan** =cleardebt

 **(Ryan) RoommateHelper BOT** Today at 2:40 PM
All debts cleared.

 **Ryan** Today at 2:40 PM
=checkdebt

 **@Ryan** =checkdebt

 **(Ryan) RoommateHelper BOT** Today at 2:40 PM
No current debts.



PROJECT

DEMO

ARCH

TECH

MISC

DEMO - Lists

Ryan Today at 2:40 PM
=checklist

@Ryan =checklist

(Ryan) RoommateHelper BOT Today at 2:40 PM
No lists found.

Ryan Today at 2:40 PM
=addlist Groceries fresh fruit

@Ryan =addlist Groceries fresh fruit

(Ryan) RoommateHelper BOT Today at 2:40 PM
Added to list "Groceries" the note:
1) fresh fruit

Ryan Today at 2:41 PM
=addlist Groceries juice

@Ryan =addlist Groceries juice

(Ryan) RoommateHelper BOT Today at 2:41 PM
Added to list "Groceries" the note:
2) juice

Ryan Today at 2:41 PM
=addlist "Bus Routes" 35 to Scotts Valley

@Ryan =addlist "Bus Routes" 35 to Scotts Valley

(Ryan) RoommateHelper BOT Today at 2:41 PM
Added to list "Bus Routes" the note:
1) 35 to Scotts Valley

Ryan Today at 2:43 PM
=checklist

@Ryan =checklist

(Ryan) RoommateHelper BOT Today at 2:43 PM
Showing All Lists
List: Groceries
1) fresh fruit
2) juice
List: Bus Routes
1) 35 to Scotts Valley

Ryan Today at 2:43 PM
=editlist Groceries 2 100% juice

@Ryan =editlist Groceries 2 100% juice

(Ryan) RoommateHelper BOT Today at 2:43 PM
Edited note 2 in list Groceries to: 100% juice

Ryan Today at 2:44 PM
=checklist Groceries

@Ryan =checklist Groceries

(Ryan) RoommateHelper BOT Today at 2:44 PM
Showing List: Groceries
1) fresh fruit
2) 100% juice

Ryan Today at 2:44 PM
=removelist Groceries 2

@Ryan =removelist Groceries 2

(Ryan) RoommateHelper BOT Today at 2:44 PM
Removed post 2 from list: Groceries.

Ryan Today at 2:45 PM
=checklist

@Ryan =checklist

(Ryan) RoommateHelper BOT Today at 2:45 PM
Showing All Lists
List: Groceries
1) fresh fruit
List: Bus Routes
1) 35 to Scotts Valley

Ryan Today at 2:45 PM
=removelist Groceries

@Ryan =removelist Groceries

(Ryan) RoommateHelper BOT Today at 2:45 PM
Deleted list: Groceries.

Ryan Today at 2:45 PM
=checklist

@Ryan =checklist

(Ryan) RoommateHelper BOT Today at 2:45 PM
Showing All Lists
List: Bus Routes
1) 35 to Scotts Valley

Ryan Today at 2:46 PM
=clearlist

@Ryan =clearlist

(Ryan) RoommateHelper BOT Today at 2:46 PM
All lists cleared.

Ryan Today at 2:46 PM
=checklist

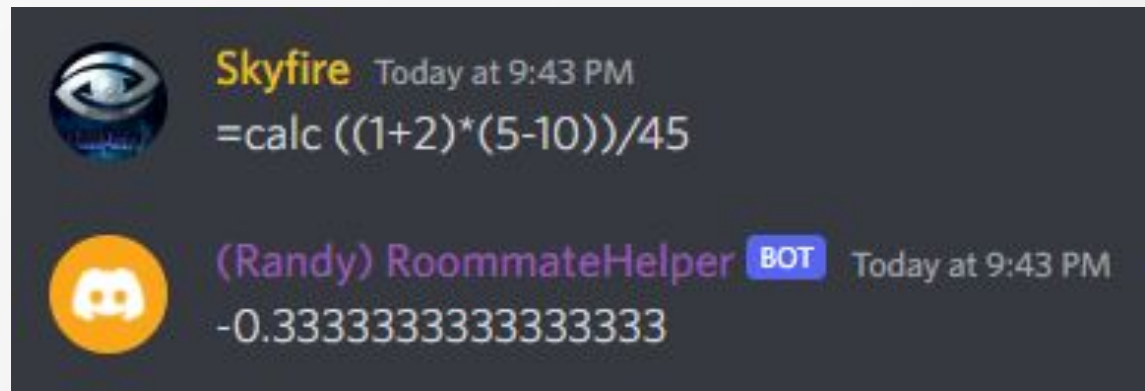
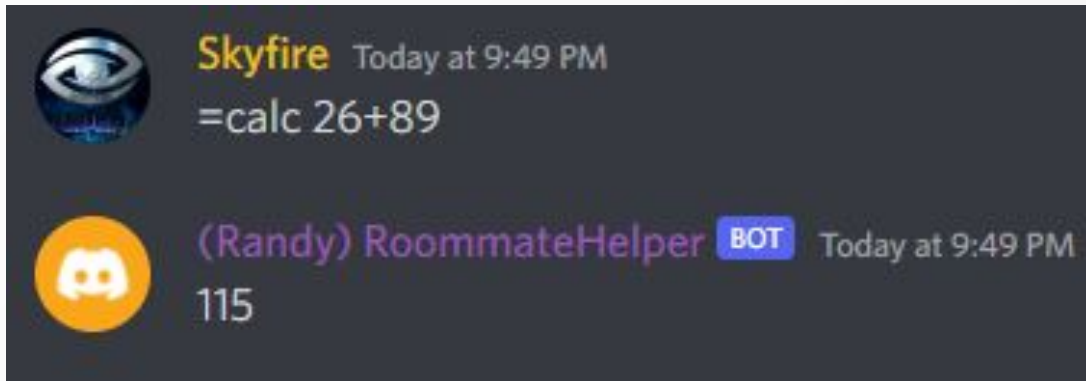
@Ryan =checklist

(Ryan) RoommateHelper BOT Today at 2:46 PM
No lists found.

ROOMMATE HELPER



DEMO - Calculator



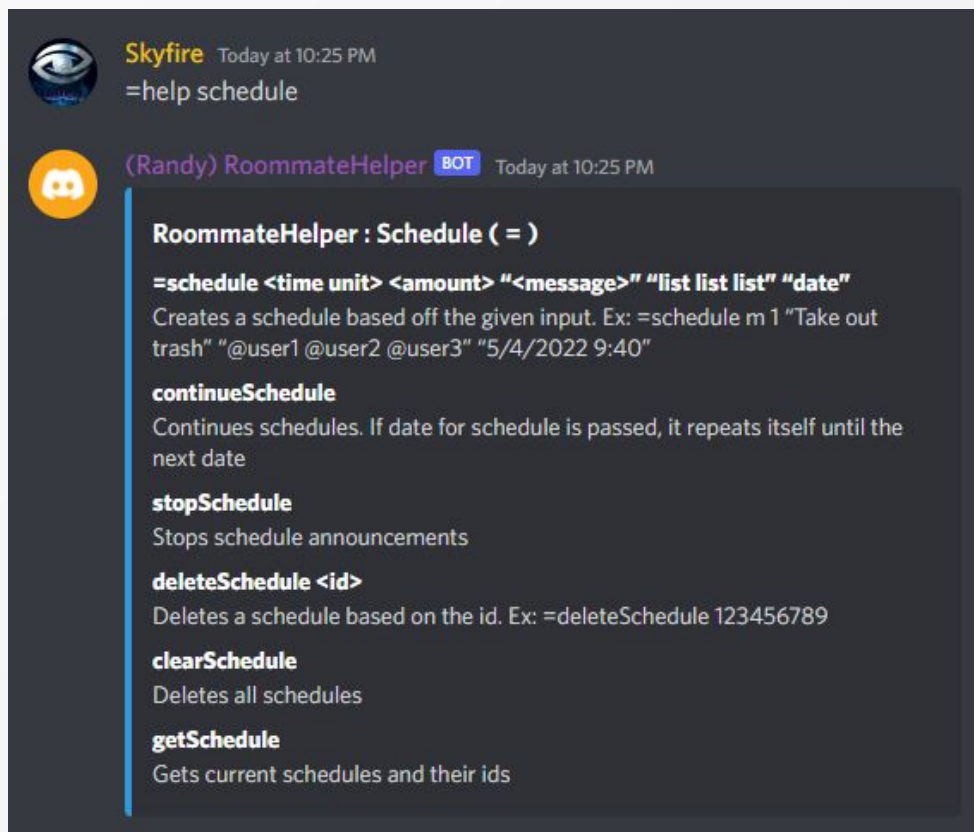
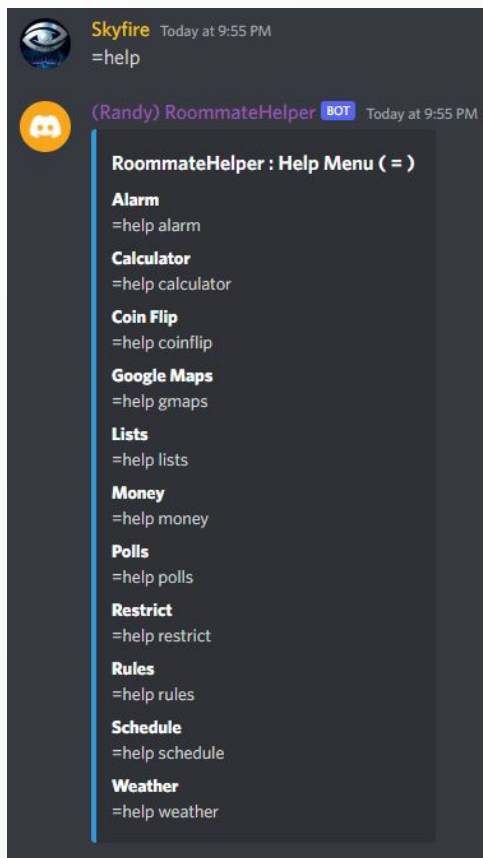


DEMO - Coin Flip







DEMO - Help Menu





DEMO - Polls

 **Skyfire** Today at 10:26 PM
=poll

 (Randy) RoommateHelper **BOT** Today at 10:26 PM

RoommateHelper : Polls

Command Format
=poll numOfVotes message listOfOptions

Example
=poll 3 "When should we eat?" Breakfast Lunch "Dinner Time"

This will give a poll with three options: Breakfast, Lunch, and Dinner Time

Note
Number of votes must match number of options. For multi-worded options, use quotations.

 **Skyfire** Today at 10:26 PM
=poll 3 "When should we eat?" Breakfast Lunch "Dinner Time"

 (Randy) RoommateHelper **BOT** Today at 10:26 PM

RoommateHelper : Polls

When should we eat?

Breakfast
1

Lunch
2

Dinner Time
3

1 1

2 1

3 1



DEMO - Alarm

JustinL Today at 11:48 PM
=alarm event 5/31/2022 23:50

@JustinL =alarm event 5/31/2022 23:50

RoommateHelper BOT Today at 11:48 PM
Added alarm for event on 5/31/2022 at 23:50

JustinL Today at 11:48 PM
=checkalarm

@JustinL =checkalarm

RoommateHelper BOT Today at 11:48 PM
Current Alarms
event 5/31/2022 23:50

JustinL Today at 11:49 PM
=alarm event2 5/31/2022 23:55

@JustinL =alarm event2 5/31/2022 23:55

RoommateHelper BOT Today at 11:49 PM
Added alarm for event2 on 5/31/2022 at 23:55

JustinL Today at 11:49 PM
=checkalarm

@JustinL =checkalarm

RoommateHelper BOT Today at 11:49 PM
Current Alarms
event 5/31/2022 23:50
event2 5/31/2022 23:55

@JustinL =alarm event 5/31/2022 23:50

RoommateHelper BOT Today at 11:50 PM
event starting.

JustinL Today at 11:50 PM
=checkalarm

@JustinL =checkalarm

RoommateHelper BOT Today at 11:50 PM
Current Alarms
event2 5/31/2022 23:55

JustinL Today at 11:50 PM
=removealarm event2

@JustinL =removealarm event2

RoommateHelper BOT Today at 11:50 PM
ALARM REMOVED

JustinL Today at 11:50 PM
=checkalarm

@JustinL =checkalarm

RoommateHelper BOT Today at 11:50 PM
NO ALARMS CURRENTLY

JustinL Today at 11:51 PM
=alarm event 5/31/2022 23:58

@JustinL =alarm event 5/31/2022 23:58

RoommateHelper BOT Today at 11:51 PM
Added alarm for event on 5/31/2022 at 23:58

JustinL Today at 11:51 PM
=checkalarm

@JustinL =checkalarm

RoommateHelper BOT Today at 11:51 PM
Current Alarms
event 5/31/2022 23:58

JustinL Today at 11:51 PM
=clearalarm

@JustinL =clearalarm

RoommateHelper BOT Today at 11:51 PM
DELETED ALARMS

JustinL Today at 11:51 PM
=checkalarm

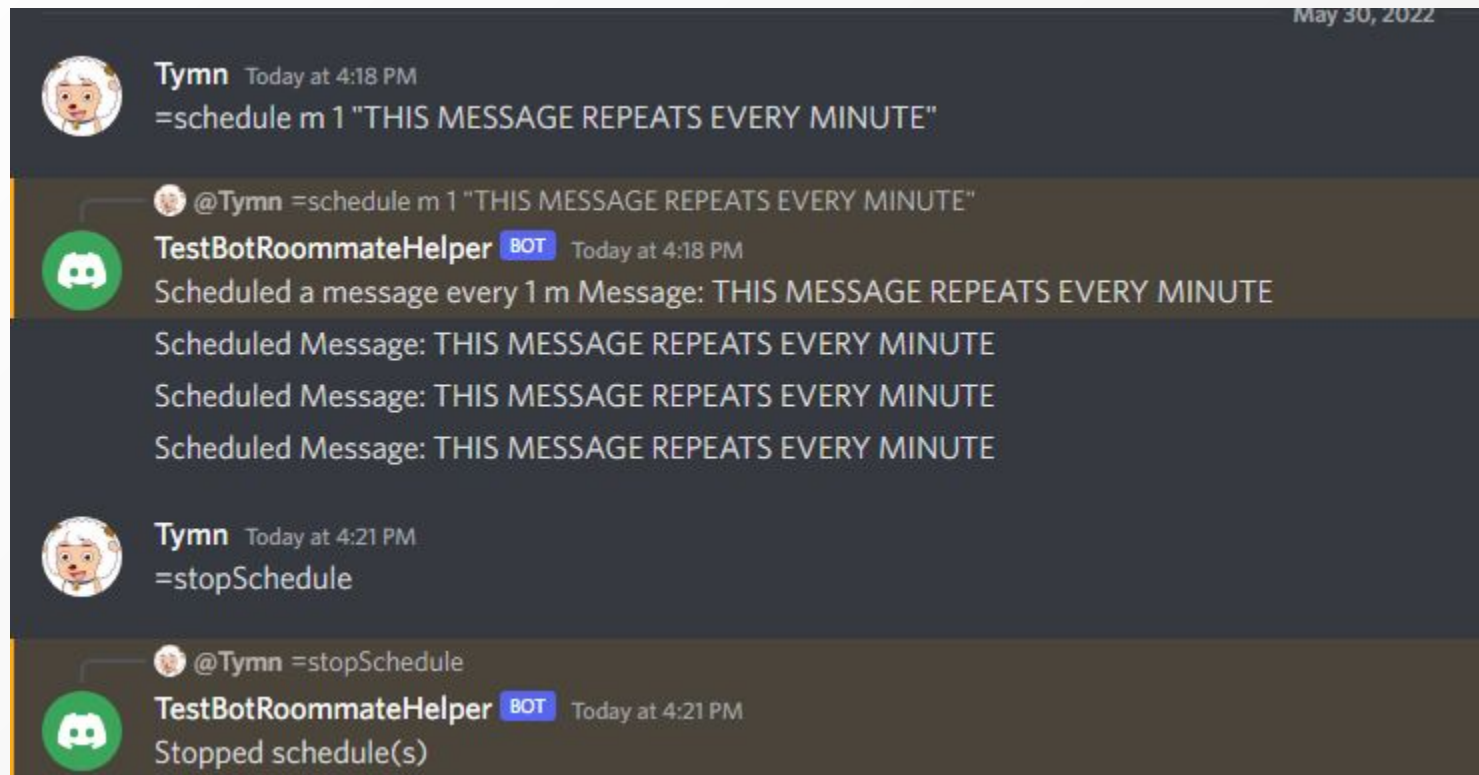
@JustinL =checkalarm

RoommateHelper BOT Today at 11:51 PM
NO ALARMS CURRENTLY



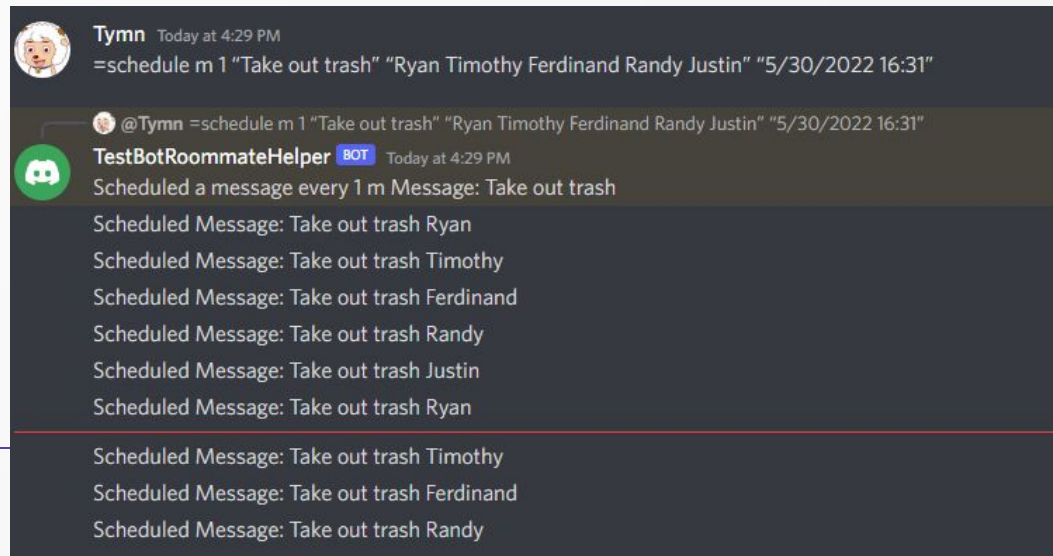
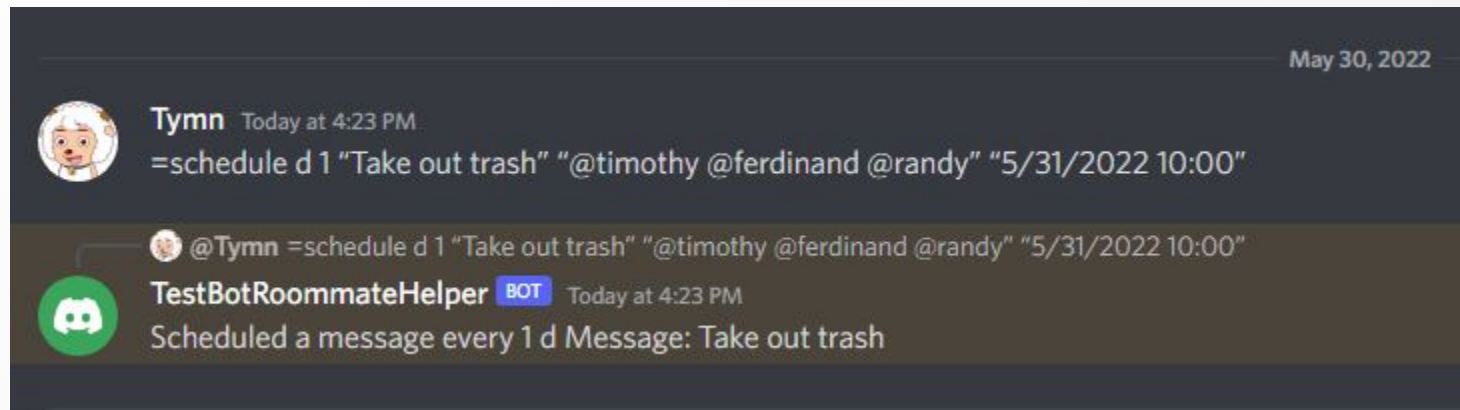


Demo - Scheduling (Simple)





Demo - Scheduling (Advanced)





Demo- Scheduling (Other commands)



Tymn Today at 4:53 PM

=stopSchedule



@Tymn =stopSchedule



TestBotRoommateHelper BOT Today at 4:53 PM
Stopped schedule(s)



Tymn Today at 5:02 PM

=deleteSchedule 522937981



@Tymn =deleteSchedule 522937981



TestBotRoommateHelper BOT Today at 5:02 PM
DELETED SCHEDULE



Tymn Today at 5:01 PM

=getSchedule



@Tymn =getSchedule



TestBotRoommateHelper BOT Today at 5:01 PM
SCHEDULES
Message: Take out trash Next Time: 2022-05-30 16:53 ID: 522937981



Tymn Today at 5:03 PM

=clearSchedule



@Tymn =clearSchedule



TestBotRoommateHelper BOT Today at 5:03 PM
CLEARED SCHEDULES



Tymn Today at 5:01 PM

=continueSchedule



TestBotRoommateHelper BOT Today at 5:02 PM
Scheduled Message: Take out trash Ferdinand

NEW



Demo - Restrict

The screenshot displays a Discord chat interface with two overlapping windows. The left window shows the **#test** channel, and the right window shows the **#restrict-to-this-channel** channel. The chat history includes the following messages:

- #test channel:**
 - Tymn** (Today at 5:03 PM): `=clearSchedule`
 - @Tymn**: `=clearSchedule`
 - TestBotRoommateHelper** (BOT) (Today at 5:03 PM): CLEARED SCHEDULES
 - Tymn** (Today at 5:23 PM): `=schedule m 1 "message"`
 - @Tymn**: `=schedule m 1 "message"`
 - TestBotRoommateHelper** (BOT) (Today at 5:23 PM): Scheduled a message every 1 m Message: message
 - Tymn** (Today at 5:25 PM): Time
 - Tymn** (Today at 5:42 PM): `=removeChannelSchedule`
 - @Tymn**: `=removeChannelSchedule`
 - TestBotRoommateHelper** (BOT) (Today at 5:42 PM): Removed channel
- #restrict-to-this-channel channel:**
 - Initial message: This is the start of the #restrict-to-this-channel channel.
 - Tymn** (Today at 5:23 PM): `=restrictChannelSchedule restrict-to-this-channel`
 - @Tymn**: `=restrictChannelSchedule restrict-to-this-channel`
 - TestBotRoommateHelper** (BOT) (Today at 5:23 PM): Restrict scheduling announcements to restrict-to-this-channel
 - Scheduled Message: message (repeated three times)



Demo - Rules

 **Tymn** Today at 5:46 PM
=addRule This is Rule 1


 @Tymn =addRule This is Rule 1


 **TestBotRoommateHelper** BOT Today at 5:46 PM
Rule added: This is Rule 1


 **Tymn** Today at 5:47 PM
=numRules

 @Tymn =numRules

 **TestBotRoommateHelper** BOT Today at 5:47 PM
Number of rules is 3

 **Tymn** Today at 5:47 PM
=getRules

 @Tymn =getRules

 **TestBotRoommateHelper** BOT Today at 5:47 PM
RULES

1. This is Rule 1
2. this is rule 2
3. this is rule 3

 **Tymn** Today at 5:47 PM
=clearRules

 @Tymn =clearRules

 **TestBotRoommateHelper** BOT Today at 5:47 PM
DELETED RULES



PROJECT

DEMO

ARCH

TECH

MISC

Demo - Music

General

TestBotRoommateHelper

Tymn

Voice Connected

General / MY BOT TESTIN...

Invite People

May 30, 2022

Tymn Today at 5:48 PM

=musicJoin

=playMusic <https://www.youtube.com/watch?v=MTB>

YouTube

MTB

=musicPause

TestBotRoommateHelper BOT Today at 5:50 PM

Paused Music

Tymn Today at 5:50 PM

=musicResume

TestBotRoommateHelper BOT Today at 5:50 PM

Resumed Music

Video

Screen

Tymn

Message #music

Tymn Today at 6:09 PM

=musicSkip

@Tymn =musicSkip

TestBotRoommateHelper BOT Today at 6:09 PM

Skipped

No more songs in queue after this one.

Tymn Today at 6:09 PM

=musicSkip

@Tymn =musicSkip

TestBotRoommateHelper BOT Today at 6:09 PM

Skipped

ROOMMATE HELPER



Demo - Weather Forecast


 fxrinxnd 05/31/2022
=weather


 @fxrdinxnd =weather

 RoommateHelper BOT 05/31/2022
Please set your city first with `=setCity <city>`

 fxrinxnd 05/31/2022
=setCity San Francisco


 @fxrdinxnd =setCity San Francisco


 RoommateHelper BOT 05/31/2022
Location set to San Francisco


 fxrinxnd 05/31/2022
=setUnits i

 @fxrdinxnd =setUnits i

 RoommateHelper BOT 05/31/2022
Units set to imperial


 fxrinxnd 05/31/2022
=weather


 @fxrdinxnd =weather


 RoommateHelper BOT 05/31/2022
In **San Francisco**, it's **55.65 °F** out, but it **feels like 54.36 °F**.
Temperatures will range from 49.93 °F - 67.82 °F.
Humidity is at 73% and wind is blowing at 14.97 mi/h.
Current conditions: **few clouds**





Demo - Locations of Interest


 **fxrdinxnd** Today at 7:48 AM
=places

 @fxrdinxnd =places

 **RoommateHelper** BOT Today at 7:48 AM
Please enter a query by =places <query>, ex: =places coffee shop


 **fxrdinxnd** Today at 7:48 AM
=places bagels

 @fxrdinxnd =places bagels

 **RoommateHelper** BOT Today at 7:48 AM
<https://www.google.com/maps/search/?api=1&query=bagels>

Bagels

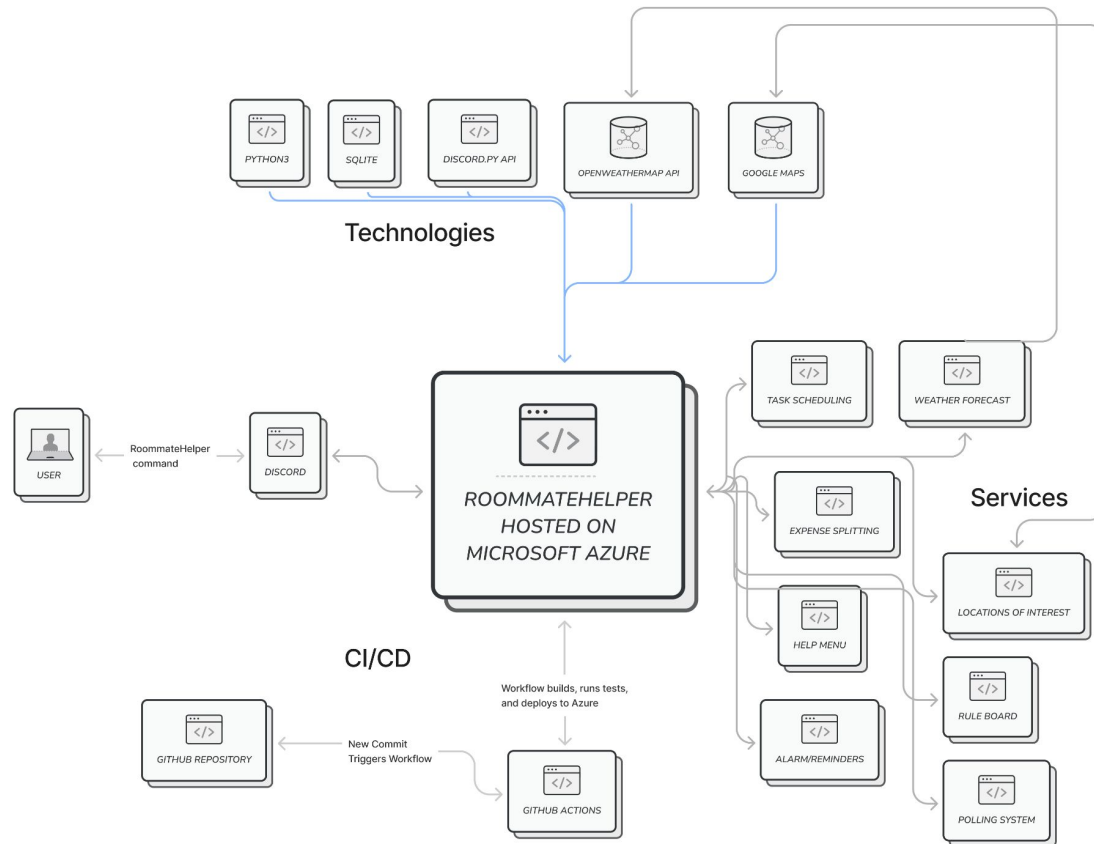
Bagels



Map data ©2022 Google



System Overview





TECHNOLOGIES

Python 3

Main programming language for the bot

Pycharm/VS Code

IDE for testing and programming

Discord.py API

API for programming the bot

Unittest

Python library for unit testing

Weather API

OpenWeatherMap API for accessing weather data

Google Maps

URLs for accessing map data

SQLite

Database for storing information

Microsoft Azure

Hosting our bot

Github

DevOps: source control, project management tools, and CI/CD pipeline



Project Management Techniques

- Scrum
 - 2 scrum meetings a week
 - Used Github Projects for scrum board
 - Meetings hosted in Discord voice chat
- Github
 - Separate development branches for each person
 - Code reviewed by another developer to merge into main
 - Github Actions to create a CI/CD pipeline to deploy to Microsoft Azure



Things We Did/Didn't Enjoy

- Enjoyed
 - Applying scrum techniques
 - Kanban board (Github projects)
 - Adding features into our bot
- Didn't Enjoy
 - Writing unit tests (but they're necessary!)



Lessons Learned

- What worked
 - Using discord as the communication hub
 - Github
 - Project board/Code management
- What didn't work
 - Missing meetings often
- Things you wished you had done
 - Research and plan architecture design more before investing time in a more basic design
 - Ex: Pickle



PROJECT

DEMO

ARCH

TECH

MISC

Thank you



ROOMMATE HELPER