Coronapyrus

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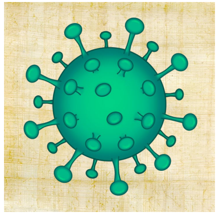
Recap

- Coronapyrus is a Python package use to retrieve COVID information.
- It will be used to build a Discord bot/Slack app.
- Our overall goal is to show reliable COVID data and current COVID news on Discord/Slack servers based upon user request.
- Users can prompt the bot to get COVID data within a time frame for a specific geographic region.

System Overview

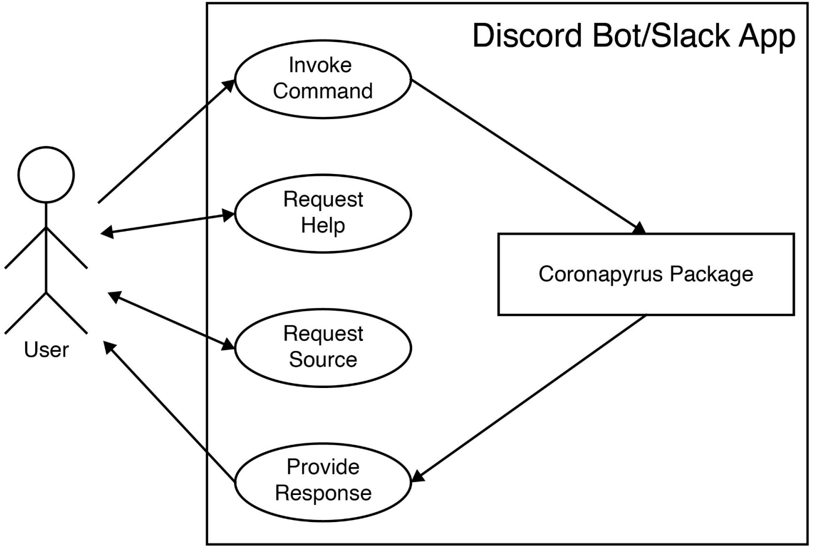
The overview includes:

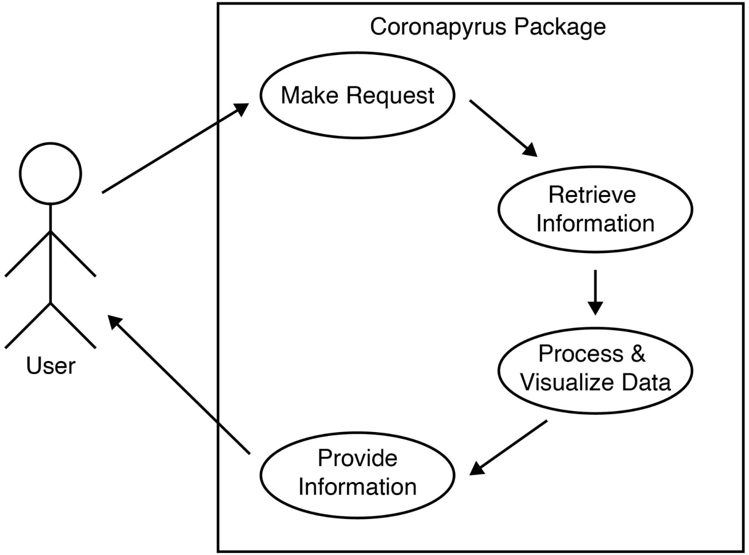
- The Coronapyrus package itself
- The Discord bot
- The Slack app



- The package handles information processing and data formatting.
- The app handles commands/events, argument parsing, and message formatting.

Coronapyrus and App System Diagrams





Actor Identification

- Coronapyrus - developers
  - Save time in designing functions to request and format COVID information

- Applications - authenticated users
  - Issue commands to the bot, receive data in response.

Design Patterns

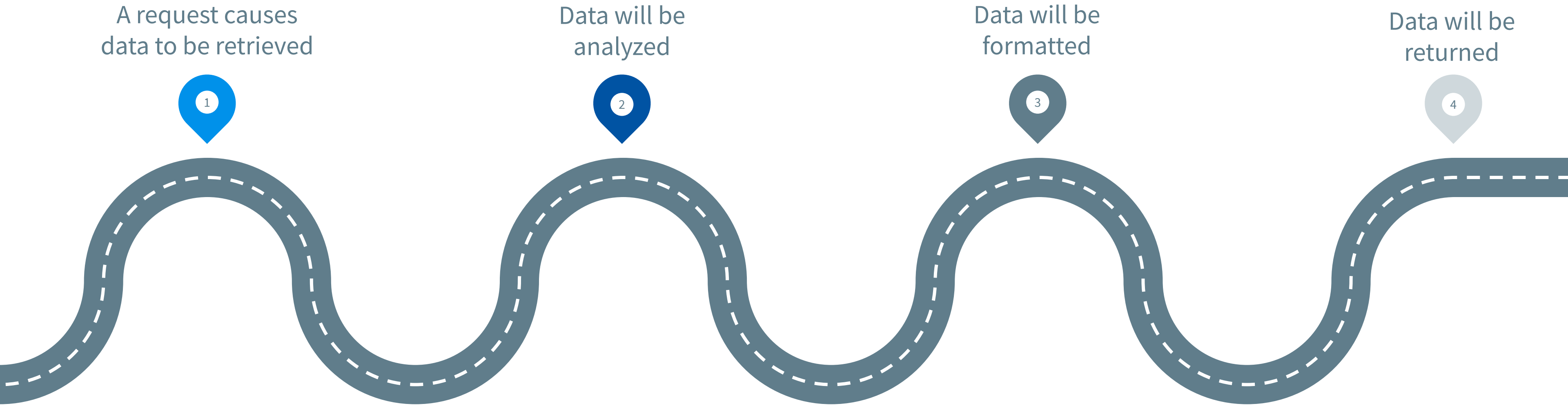
- Decorator
  - Used in the Discord API Python wrapper for executing a method in response to an event
- Façade
  - Used in the Coronapyrus design to minimize the need to repeatedly call groups of methods
- Singleton
  - Used in that there should only be one Coronapyrus Session class

Architecture Style

- Coronapyrus Architecture: *Pipes-and-Filters*
  - Coronapyrus is simply data retrieval and formatting

- Application Architecture: *Two-Tier/Event Driven*
  - Responds to user commands
  - Passes user parameters from app input to Coronapyrus package and presents a response

Application Architecture Overview - Event Driven



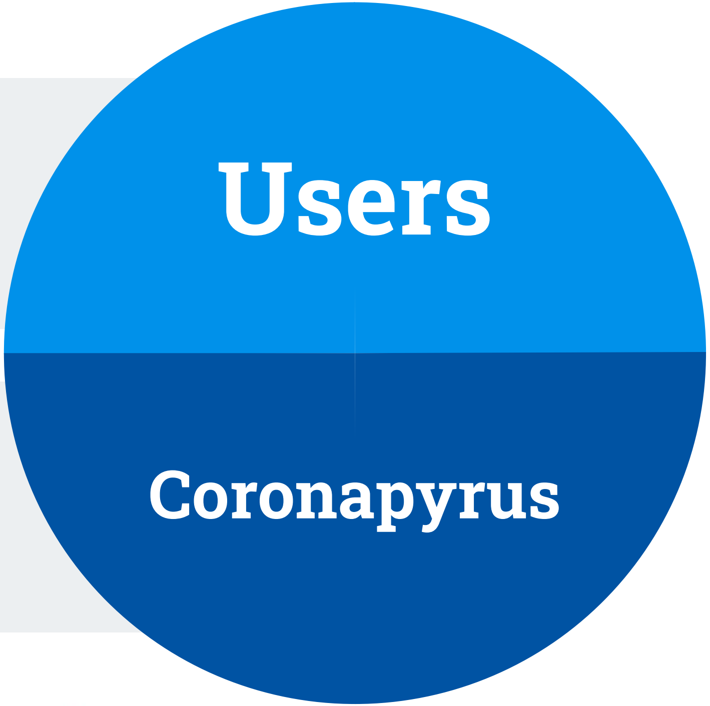
Application Architecture Overview - Event Driven

User

The user requests data, driving an event from Discord or Slack to the Coronpyrus bot. Once the event is returned, it outputs it for the user.

Coronapyrus receives the event information, processes it, and then passes it back to Discord or Slack.

Data Source



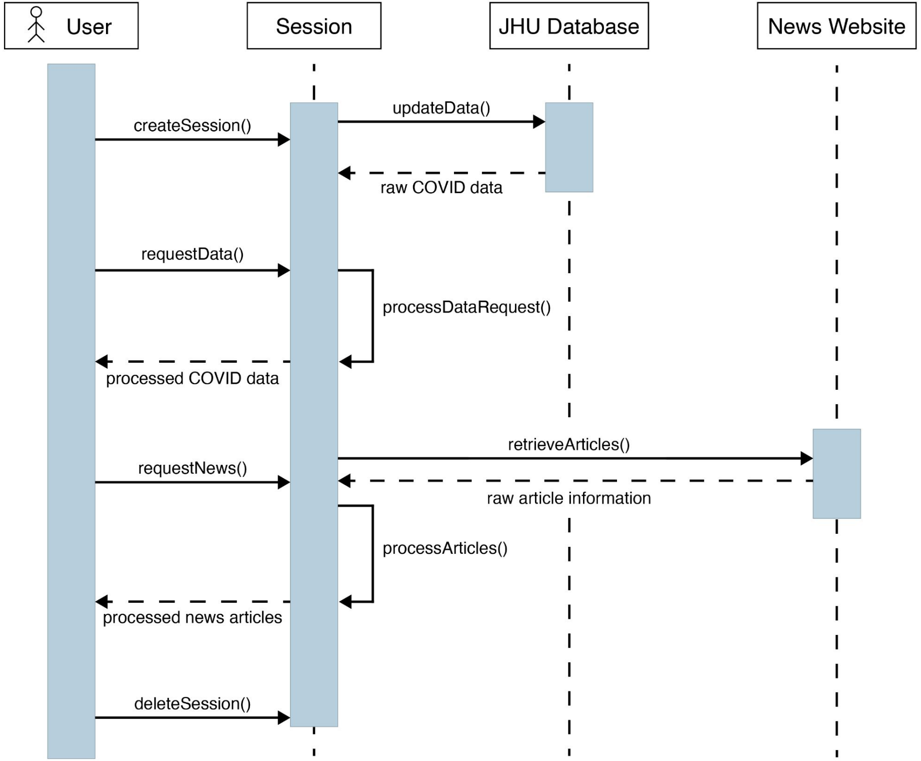
Users

Coronapyrus

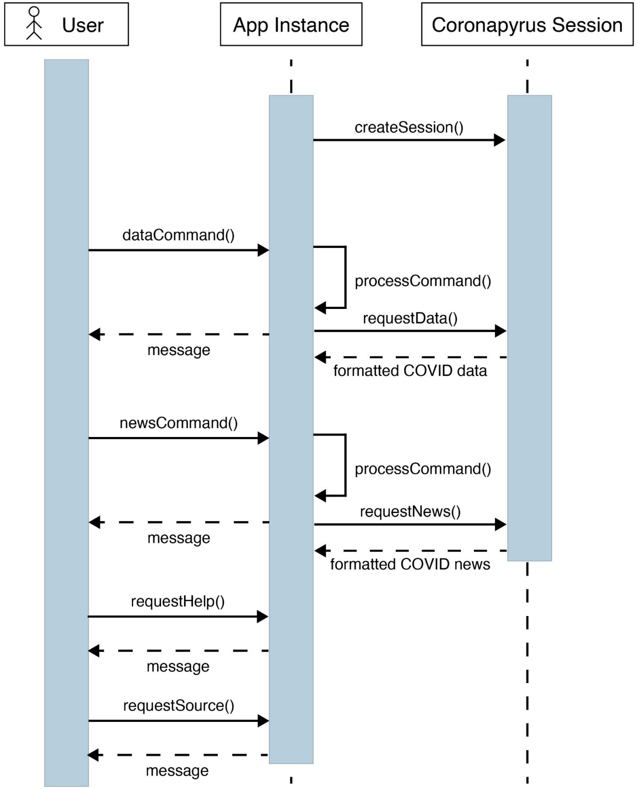
System Framework

- There is no applicable Framework for Coronapyrus

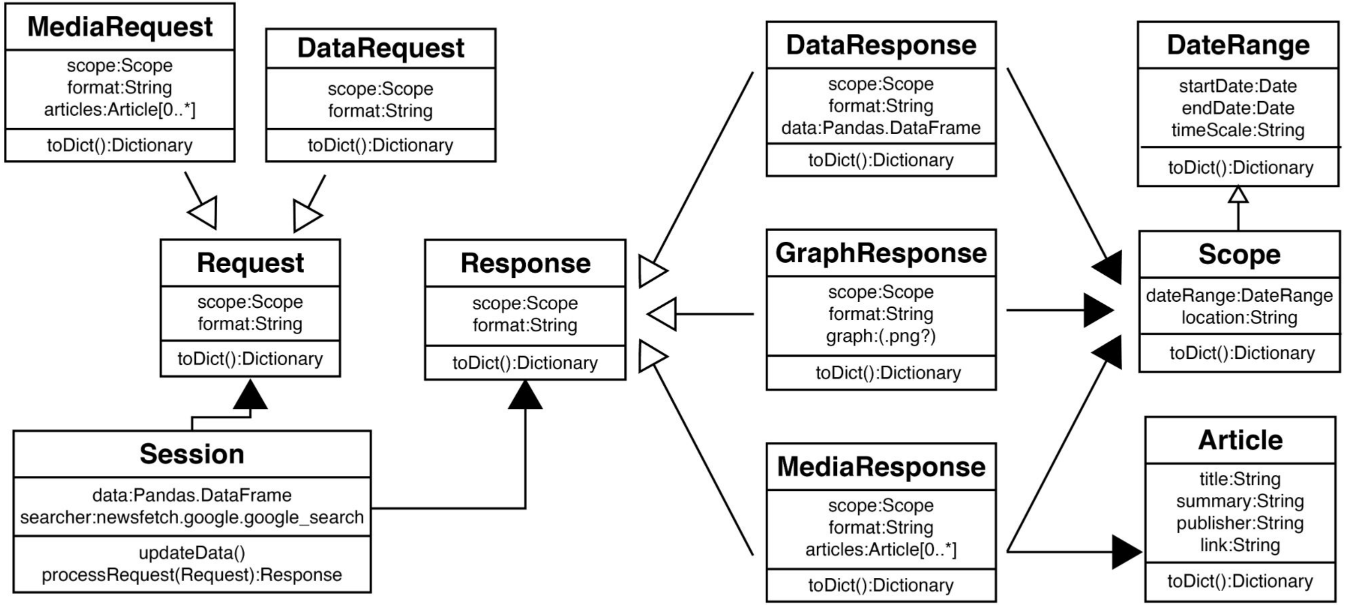
Coronapyrus Sequence Diagram



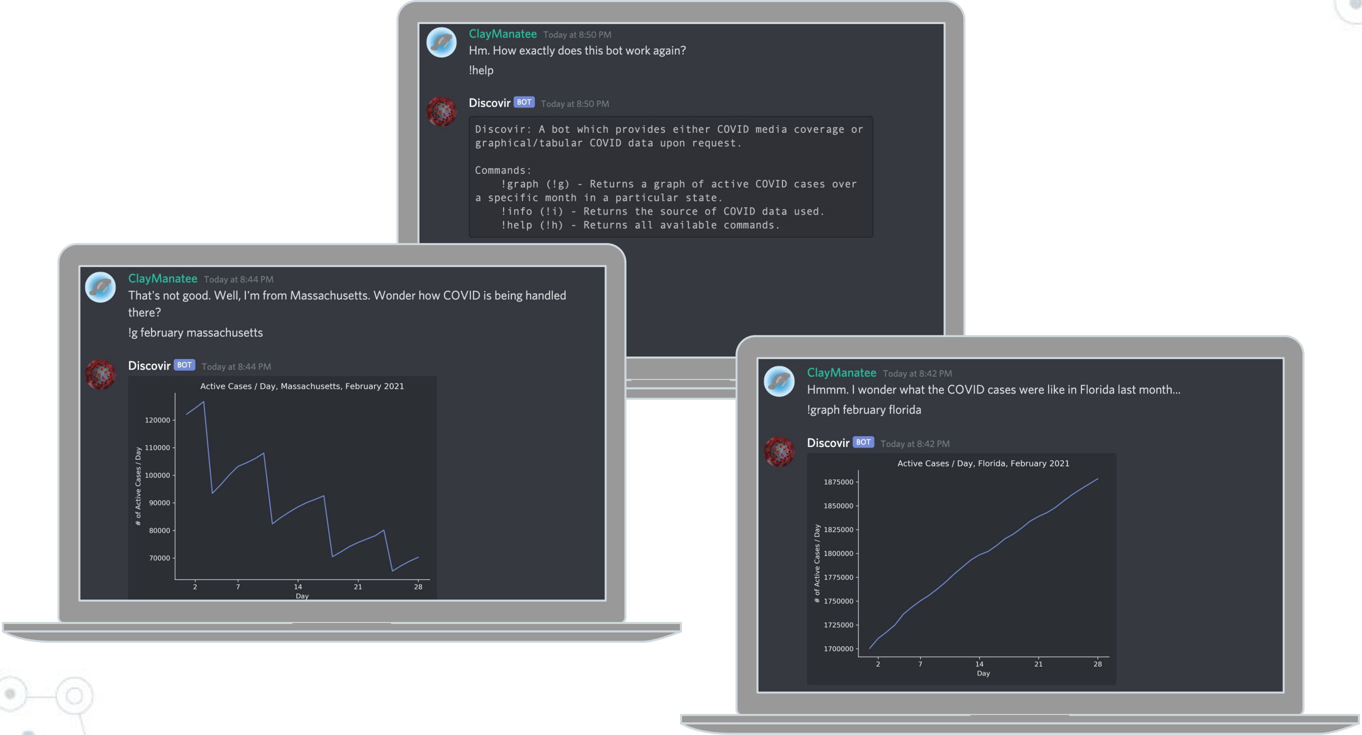
Application Sequence Diagram



Coronapyrus Class Diagram



Project Mock-Up: Then



ClayManatee Today at 8:50 PM

Hm. How exactly does this bot work again?

!help

Discovir BOT Today at 8:50 PM

```
Discovir: A bot which provides either COVID media coverage or
graphical/tabular COVID data upon request.

Commands:
    !graph (!g) - Returns a graph of active COVID cases over
a specific month in a particular state.
    !info (!i) - Returns the source of COVID data used.
    !help (!h) - Returns all available commands.
```

ClayManatee Today at 8:44 PM

That's not good. Well, I'm from Massachusetts. Wonder how COVID is being handled there?

!g february massachusetts

Discovir BOT Today at 8:44 PM

ClayManatee Today at 8:42 PM

Hmmm. I wonder what the COVID cases were like in Florida last month...

!graph february florida

Discovir BOT Today at 8:42 PM

Project Mock-Up: Now

Github

https://github.com/JamesMcSweeney/CSC431

Thanks!

Any questions?