Kalani Dissanayake, Ben Keller, Dennis Meyer, Thomas Rosebrook

Group 2

Dennis Lang

CIS200: Programming Fundamentals (Scholars)

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Project Submission

Description:

José, the movie bot, utilizes the IMDB API to find the link to a show/movie trailer when a command is typed in on discord. For example, if your movie was the Avengers, you would type "!the avengers" into a discord chat containing the bot. Assuming the bot is online, it will respond with the link of the trailer. If the show or movie does not exist, it will give you an error.

Our code to do this starts by taking in the name of the show/movie (from "command line" or in this case, the discord chat). Then, it uses that string, the movie name, and calls the getID method from the IMDB class, which utilizes the IMDB Search API to get the IMDB ID, which is used to find the trailer. Since the search *most likely* gives you an array of JSON data, we must take the top search and then convert the JSON data to Strings. After this is done, the method will return the IMDB ID. Once the program has the IMDB ID, it calls the getLink method, which utilizes the IMDB YouTubeTrailer API to get the IMDB ID. This gives JSON data which we must convert to strings, we can then use this to find and return the trailer link.

To Run/Test:

1. Add the bot to a server using this link:

    https://discord.com/api/oauth2/authorize?client_id=900815716381503529&permissions=0&scope=bot

2. Check if the bot is running by looking at its online status (if the developer is using their laptop, Kalani's laptop, then the bot should be running due to it being the "hub" for the bot). If the bot is not running, run using the jar file provided (BotStart.jar)

    -   Run the jar by using the command: java -jar javabottest.jar

    -   Be careful not to host more than one instance of the bot because it can cause the bot to return multiple statements where only one would be needed.

3. Test by entering in the show/movie of your choice! (Using !Movie/Show name)

What we learned:

-   We learned how to use and write code that utilizes APIs (both IMDB and Discord API)

-   We also learned what JSON data is, how to "extract it" and turn it into strings.

-   We learned the basics of creating a discord bot through eclipse (java) and also registering the bot with discord

-   We learned how to use referenced libraries (paths) in eclipse

Problems we encountered, modifications from the original proposal, and what we would have done differently:

- Problems: We initially expected that we would only have to use one API when we ended up having to use two. Meaning, we thought we could go from movie name → movie trailer link using one API but instead, we had to do movie name → IMDB ID API to IMDB ID → movie trailer link API. Also, the IMDB API tends to crash A LOT, and when it crashes our bot does not work due since our code is based on IMDB's system.

- Modifications: We thought we would have more classes than we ended up actually having. We ended up having 3 classes,

    a. BotStart.java - Contains the main method, this is the primary class that runs controls the bot

    b. Commands.java - Defines the command that will find the trailer.

    c. IMDB.java - Defines the IMDB object and the classes associated with it (getID and getLink)

- What we would have done differently: We would've tried to find the most accurate result in the search as opposed to the first result. (Most of the time the first result is the most accurate but it is hard to know exactly what the user wants, especially if there are multiple shows/movies with the same name). We would also try to find a way to host the bot on a cloud that is not connected to a laptop so that it could always be running

Breakdown of tasks:

- Coding: Kalani (IMDB, BotStart, Commands), Ben (IMDB), Dennis (BotStart), Thomas (IMDB)

- Paper: Kalani, Ben, Thomas

- Presentation: Kalani and Ben

- UML diagram: Kalani