



Version 1

# Panther Lily Manual

Panther Lily Version 1.2



SgtMajorDoobie

[HTTPS://GITHUB.COM/MAJORDOOBIE/PANTHERLILY](https://github.com/MAJORDOOBIE/PANTHERLILY)

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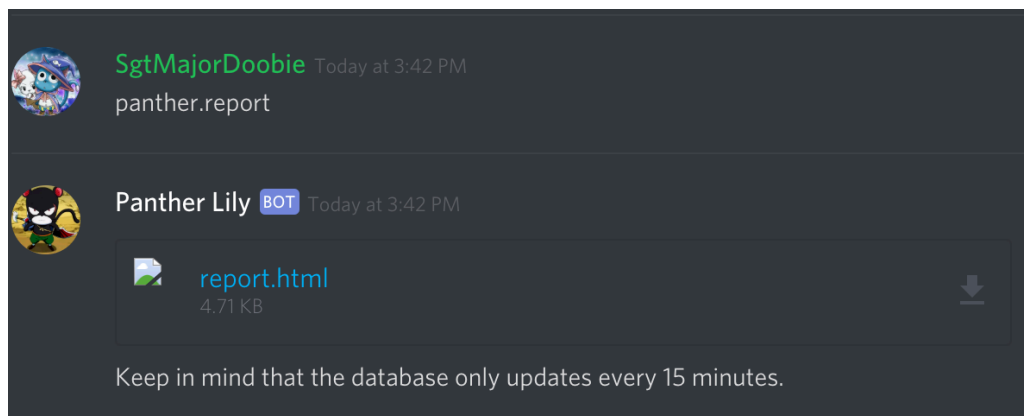
## Panther Lily

### The need for Panther Lily

Thank you for using Panther Lily, the Python3 written bot used to track donations for Reddit Zulu, Clash of Clans. The original purpose of Panther Lily was just to do that, track users donations. Before Panther Lily debuted, the Reddit Zulu leaders would manually update a Reddit page containing everyone's Friend In Need (FIN) amount for the end of the week. As you can imagine this is a tedious task calculating up to 50 users FIN for the week and then having to kick users based on their lack of donations for that week. This can be frustrating for the leaders to have to find the time to do this every week but also frustrating for everyone else. Everyone else needs to stay on top of their weekly donation progress to stay compliant with Reddit Zulu rules. For them to do so, they would need to navigate to the Reddit page where their previous week's FIN amount is stored and compare them to their current FIN. This, of course, is only possible if the busy leaders of Reddit Zulu found the time to be able to update the page, otherwise, they're out of luck. These are two of the main issues that Panther Lily aims to solve.

### Tracking users in Reddit Zulu w/ panther.report

The first issue that Panther Lily addresses are the need to have to manually calculate weekly FIN. Like stated in the introduction, a leader would have to manually track everyone's FIN and update a Reddit page and that is assuming that they were not too busy with real life to update it on time. Panther Lily offers two main commands for this. The first is "report" command. The report command creates an HTML file that you can open in any browser and will show you the current progress for the week for everyone. The command looks like this:



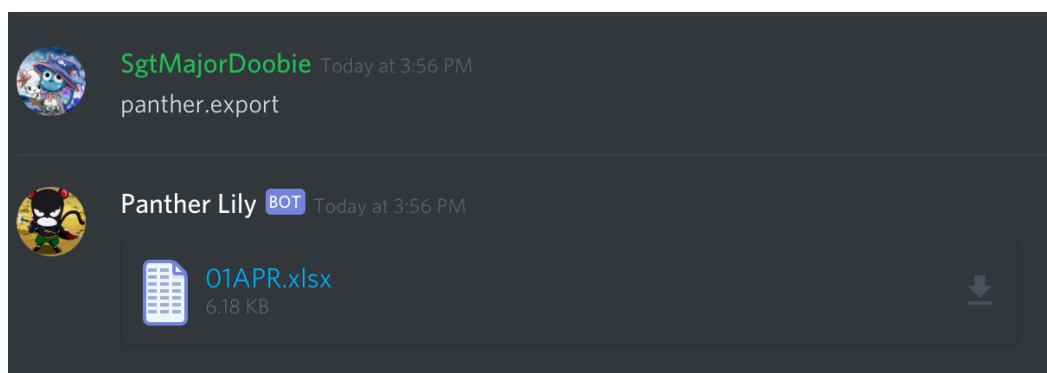
Now opening that HTML we can see a tabular table with a couple headers.

| <b>Name</b>    | <b>Current</b> | <b>Current_FIN</b> | <b>31MAR</b> |
|----------------|----------------|--------------------|--------------|
| Ivar Greybeard | 5481           | 187707             | 182226       |
| sc             | 545            | 46172              | 45627        |
| a_red_penguin  | 1391           | 35723              | 34332        |
| Al Green       | 2731           | 184949             | 182218       |
| Rob            | 365            | 63254              | 62889        |
| THANOS         | 1141           | 107034             | 0            |

The tabular data gives you four data fields. The first being the users name followed by current, current\_fin, and finally a date field. Starting from the date field, that is the FIN value of their last published<sup>1</sup> FIN. If they have a 0 that means that they are too new and there wasn't a published FIN for the previous week. The current\_fin field is the current FIN value that they have. Finally, current is the difference between their last published and their current FIN. In THANOS example, they still have a 0 in the date field but still have a current. If they have a 0 for the previous week then the bot will calculate the difference between their very first donation and the current donation FIN value.

#### Tracking users in Reddit Zulu w/ [panther.export](#)

The second tool that leaders have access to is the export command. Unlike report which shows live data, export only shows publishable data and only updates on Mondays at 0100 GMT. The command looks like this:



The very first thing you should notice is the name of the file. The name tells you what data it currently has. Today's date is the 6 of April so opening that file will only show you last week's FIN numbers. The file will only change on Mondays as mentioned earlier. Let's take a look inside the file.

---

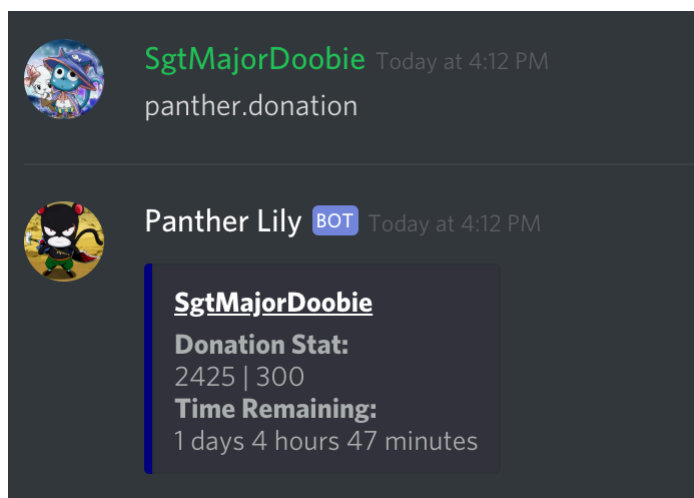
<sup>1</sup> Published FIN is simply the FIN values that are recorded on the Reddit page and it is the value used to decide if the user made enough progress to stay.

| Name           | Diff | 31MAR  | 24MAR  | 17MAR  | 10MAR  |
|----------------|------|--------|--------|--------|--------|
| Al Green       | 1632 | 182218 | 180586 | 179581 | 178863 |
| Albi           | 0    | 38167  | 0      | 0      | 0      |
| AlleHop        | 0    | 88742  | 0      | 0      | 0      |
| Almond_Joy6565 | 0    | 13335  | 0      | 0      | 0      |
| BDon           | 0    | 23911  | 0      | 0      | 0      |
| Bio            | 0    | 106359 | 0      | 0      | 0      |
| Blump          | 0    | 128930 | 0      | 0      | 0      |
| BruisedGhost   | 407  | 54842  | 54435  | 53874  | 53250  |
| Chadwick       | 1737 | 183762 | 182025 | 181211 | 180427 |

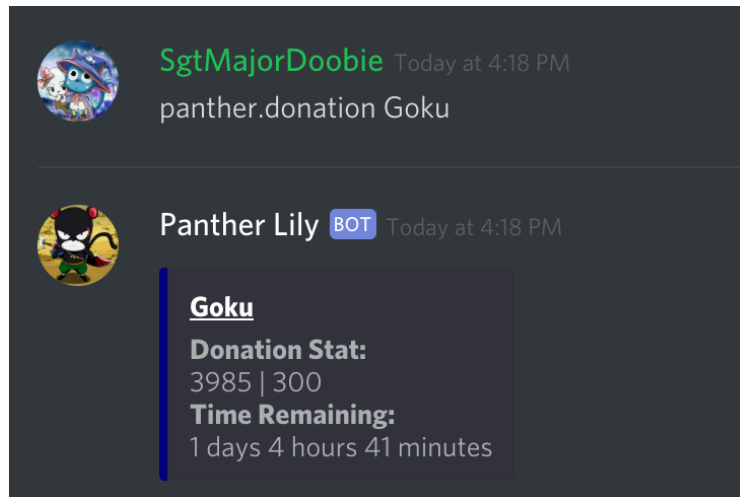
The export command has a few similarities with the HTML file generated with report. It contains the same name field and the same last weeks published date field. It extends that a bit further by showing the previous four weeks not just the last weeks. The difference field is the donation difference between the current week and the previous week. Unlike report that doesn't need the previous week to calculate the difference, this command does. This is done to keep it fair for folks who joined late in the week. They will receive a 0 annotating that they are new. They also receive a yellow color showing that they are new as well. You can also see a green color stating that the user successfully achieved the required FIN for the week. A red color would be seen for anyone who failed.

#### [User Tracking Their own FIN w/ panther.donation](#)

The second issue that Panther Lily aims so solve is providing an easy way for users to check their own weekly FIN progress to make sure that they are compliant with Reddit Zulu rules. This can be performed with the donation command as shown below:



Some things to note about this command is that it is not entirely live data. There is a small delay between a user donating troops in Clash of Clans (CoC) and CoC allowing developers to query that data. The data is available as soon as two minutes after the user donated in game. This command also takes an optional argument<sup>2</sup> of a discord username, mention, or ID. The command looks like this:



---

<sup>2</sup> Optional arguments will be covered in greater detail in the commands section of this writeup.

## Commands

### How to interpret the help menu

Panther Lily has a pretty robust help menu but it can be quite daunting to interpret it. There have been several visual queues that have been added to the help menu to assist in interpreting the command structure. Let's see the useradd command as an example.

#### Administrative Commands

**panther.useradd** <#clashTag> <@mention | DiscordID> [opt: FIN Value]

Register a new user to the database. It is mandatory to supply the user's clash tag and @mention arguments when invoking this command. Registering the user will change the user's nickname on discord to their in-game name along with assigning 'CoC Members' and 'th#s' roles.

We will cover in detail how the help menu command is categorized, but for now, we are going to cover how to interpret the command arguments. First, we can see that in order to use the command we have to supply the panther.adduser. This is the command. Everything after the panther.adduser is called arguments. You can see that there are three sections of arguments for this particular command. Some are wrapped in carrots <> while others are wrapped in brackets []. The arguments wrapped in carrots <> are mandatory arguments. Without these arguments, the command would fail. Anything with a bracket [] is an optional argument in which is if we were to omit the optional argument it would not fail while but providing the optional argument it would provide additional functionality. Again, we will break down this command later on, for now, we will focus on how to interpret the argument requirements. Within the carrots or brackets, you can see the type of argument that the command is asking for. For example, the first argument for this command is expecting a users Clash of Clans tag. This is followed by another mandatory argument expecting a mention or discordID. The pipe | between the two arguments signifies an or statement. You can either supply the mention or the discordID and it will interpret them the same.

The | can be better seen on the panther.lookup example. This command takes a single mandatory argument as you can see below but that single argument can be one of three things.

**panther.lookup** <--name | --tag | --discordID>

Used to lookup for a user in the SQL database. The command will return the users name, clash tag, discord ID, clash level, active status, and profile notes if they are found. This is useful to see the status of a member or to find members from years ago that are still in the database. This is due to the users in the database staying forever. The only data that is recycled is the donation tracking table.

## Command Shortcuts

There is a lot of words to type out when using commands. But for transparency sake, it is worth knowing the full commands name. However, this can become tedious especially on mobile devices. This is why Panther Lily is equipped to accept several shortcuts and interpret them as the full command or argument.

For starters, telling the bot to listen is done by supplying the bots name. In this case, it is panther. This can be shortened to just the first letter of the bots name. This is possible across all three cat bots in Reddit Zulu.

Next, are the command arguments. You can tell that there is a shortcut for an argument when they start off by the double dash --. This signifies that it can also take a single dash with the first letter of the argument. Let's revisit the panther.lookup command.

**panther.lookup** <--name | --tag | --mention>

Used to lookup for a user in the SQL database. The command will return the users name, clash tag, discord ID, clash level, active status, and profile notes if they are found. This is useful to see the status of a member or to find members from years ago that are still in the database. This is due to the users in the database staying forever. The only data that is recycled is the donation tracking table.

### [Example]

```
panther.lookup --tag #YC12LPJ
```

```
panther.lookup -t #YC12LPJ
```

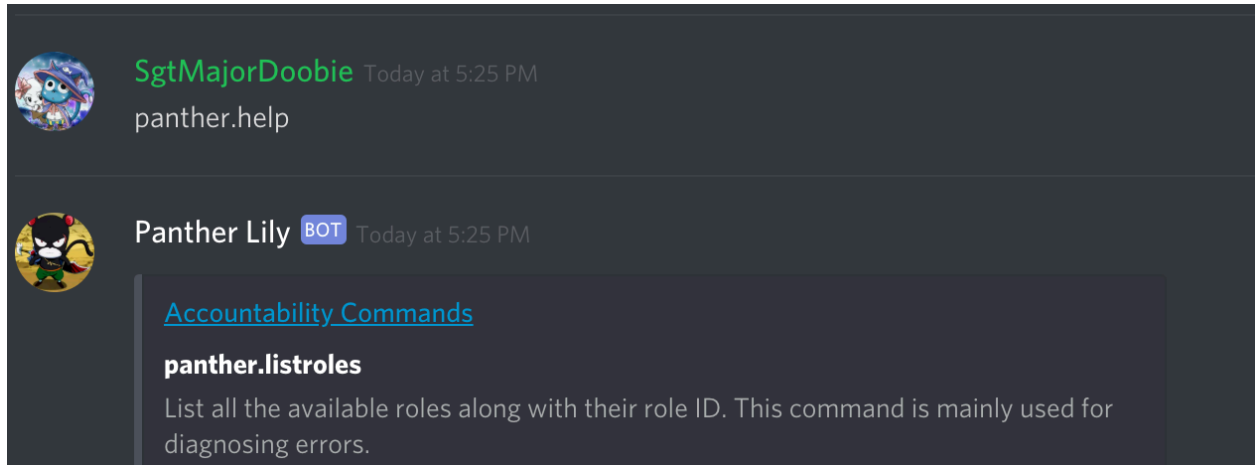
You can see that it takes one of three mandatory arguments all containing the double dash. This can be shortened to a single dash with the first letter of the argument.

Finally, are the commands themselves. There is no easy structure to follow for these so you'll just have to test them out to see if the command will take just the first letter. For example, you can convert panther.donation to p.d.

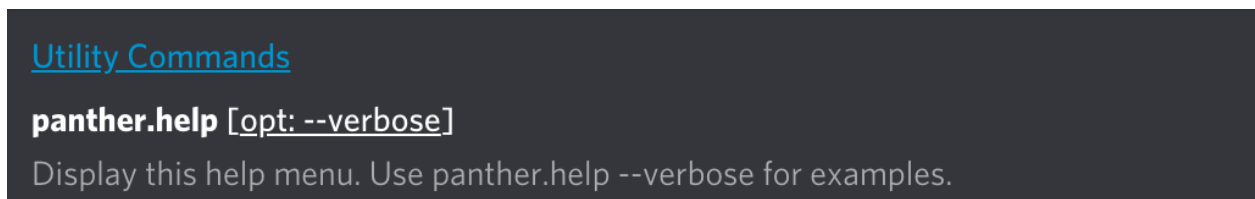


## The Help Menu

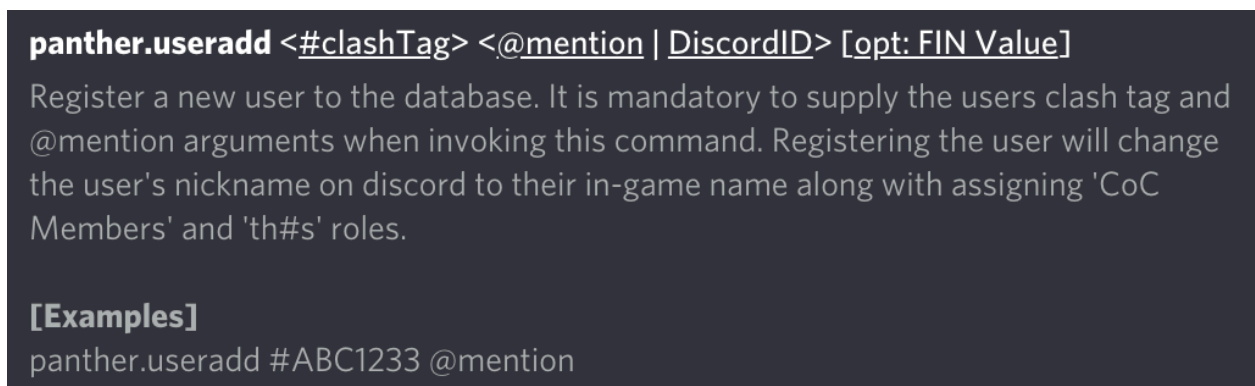
The help menu is a Panther Lily command that can be called by using the panther.help command like so:



The command itself has an entry in the help menu:



As we learned above, the brackets [] signifies that the command takes an optional argument. In this case, the optional argument is the --verbose. This extends the help menu to include examples under a few commands in case you forget how to use them.



Finally, the help menu is separated into three categories. Accountability Commands, Utility Commands, and finally Administrative Commands. Accountability Commands are tools that assist in identifying who is currently in the clan and registered in the databases. Utility Commands are commands designed for everyone to use such as donations and stats. Finally,

we have the Administrative Commands. These commands can only be used by members who have the CoC Leadership role in discord, otherwise, they would get a red warning stating that they are not allowed to use the commands. These commands include adding users and such.

### Adding Users

Adding a user is quite simple, what might not be simple is understanding what it means to add a user. Panther Lily does all its magic by maintaining a database on a server. Registering a user simply creates an entry in this database and allows the bot to update the user's information every 15 minutes. This includes their trophy level and their current FIN. To add a user you use the `panther.adduser` command followed by their Clash of Clans tag and their discord name/ID/mention. An optional argument is the FIN that you want to set. By default adding a user will record their current FIN that they have in-game. There may come a time when you have recorded a users FIN from a couple of days ago and you prefer to go off that value. This is where that command comes into play.

**panther.useradd** <#clashTag> <@mention | DiscordID> [opt: FIN Value]

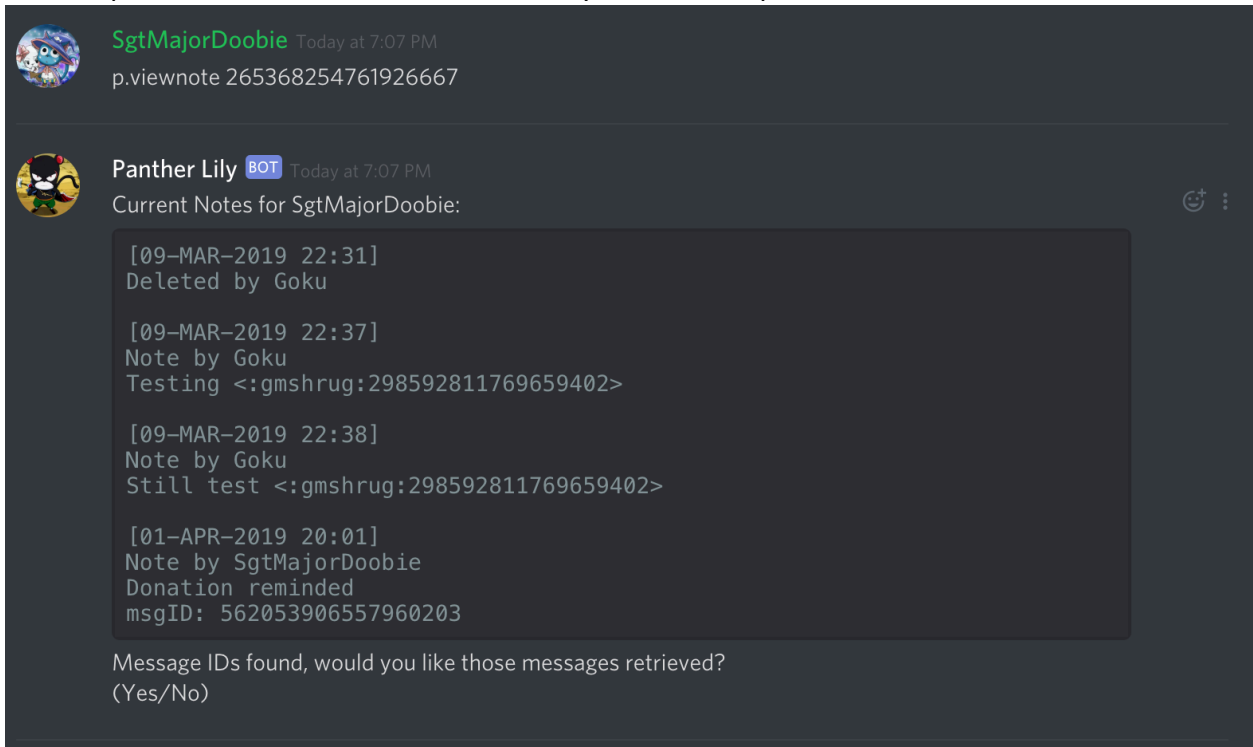
Register a new user to the database. It is mandatory to supply the users clash tag and @mention arguments when invoking this command. Registering the user will change the user's nickname on discord to their in-game name along with assigning 'CoC Members' and 'th#s' roles.

#### [Examples]

panther.useradd #ABC1233 @mention

## Administrative Notes w/ disable\_user, enable\_user, addnote, getnote, viewnote

All these commands have something in common, in that is the add notes requirement. Every user is able to contain a administrative note attached to them. You can view it with two commands. One being the panther.lookup command which we will cover in more detail later and the panther.viewnote command. When you issue the panther.viewnote as follows:

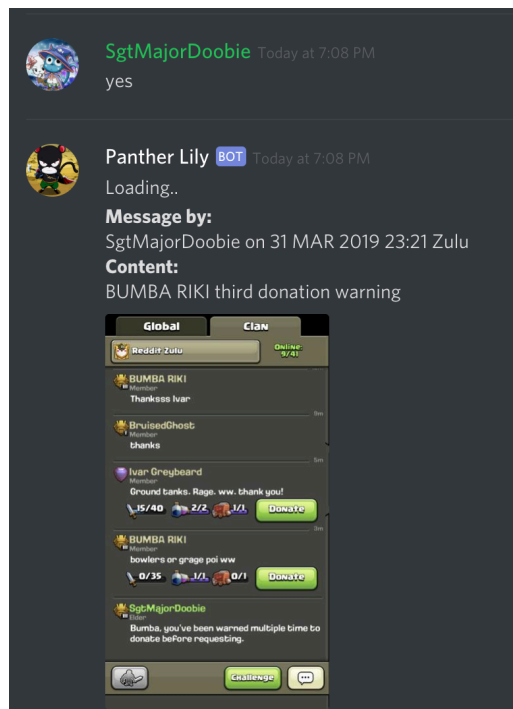


The screenshot shows a Discord chat window with a dark theme. At the top, a user named **SgtMajorDoobie** (with a colorful circular avatar) has sent a message: `p.viewnote 265368254761926667`. Below this, a bot named **Panther Lily** (with a black and white cat avatar and a blue 'BOT' tag) has responded. The bot's message is titled 'Current Notes for SgtMajorDoobie:' and contains a list of notes in a dark gray box. The notes are as follows:

- [09-MAR-2019 22:31]  
Deleted by Goku
- [09-MAR-2019 22:37]  
Note by Goku  
Testing <:gmshrug:298592811769659402>
- [09-MAR-2019 22:38]  
Note by Goku  
Still test <:gmshrug:298592811769659402>
- [01-APR-2019 20:01]  
Note by SgtMajorDoobie  
Donation reminded  
msgID: 562053906557960203

Below the list of notes, the bot asks: 'Message IDs found, would you like those messages retrieved? (Yes/No)'.

You will be prompt to retrieve the msdID. Answering with a yes performs the following:

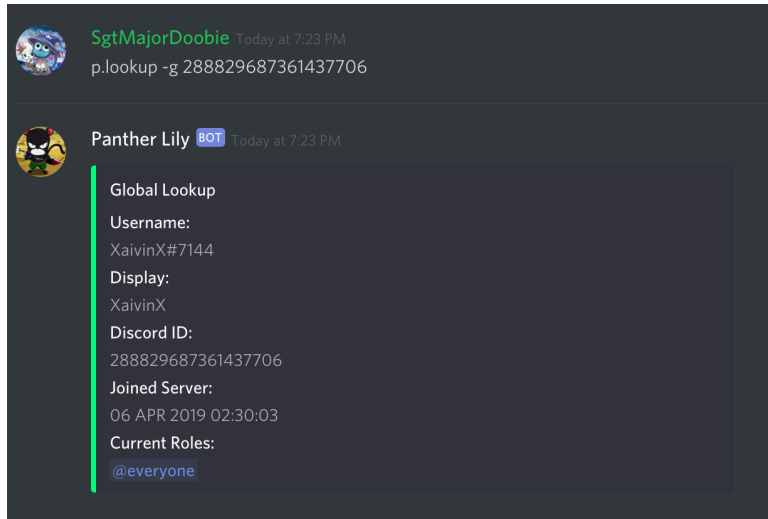


What is the use case? Say that you added a bunch of notes on a user in #leader-notes you can copy the message ID of that note you added to #leader-notes and attach that ID to the user's profile. Why? Say that we had a user who constantly missed donations and finally became a toxic player. We would then annotate that in their profile and kick them. A year down the road they apply again and we remember that user being in the clan but don't remember anything about them. So we use the panther.lookup command to see if we have any info on them. And it turns out we do. You can then use panther.viewnote on that user and pull every single note on that user in one location instead of manually trying to search through #leader-notes.

Another neat thing about adding notes is how the bot will automatically timestamp it and add the user's name who added the note.

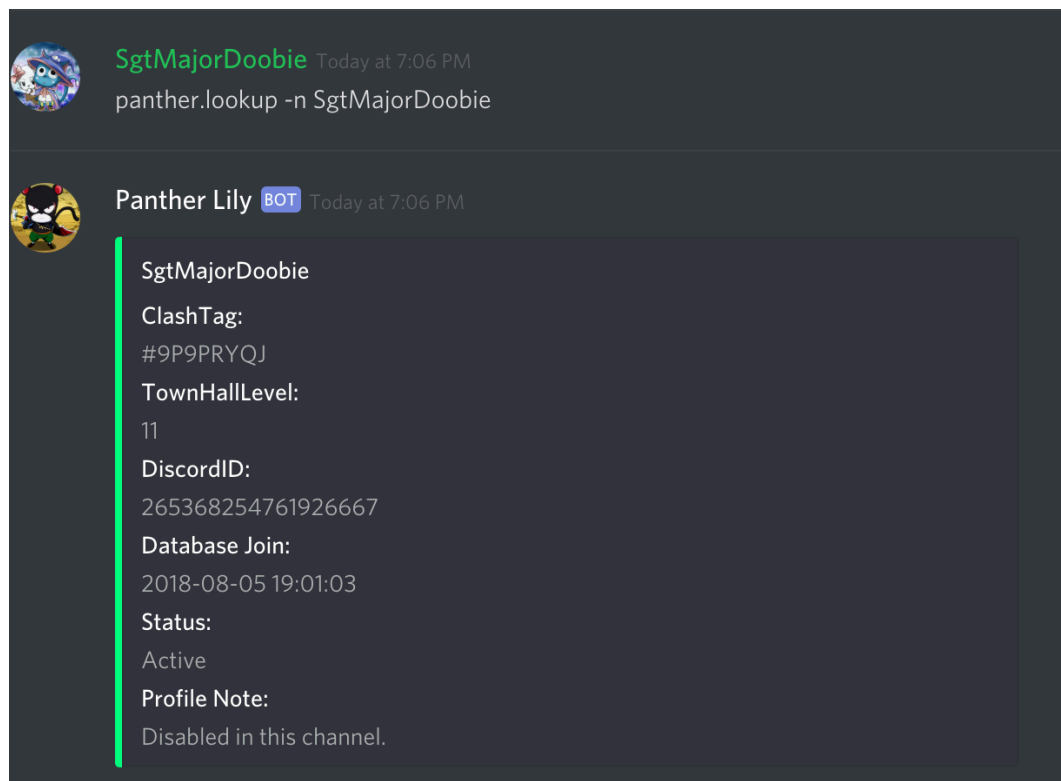
## Looking Up Users w/ panther.lookup

One of the most powerful tools is the panther.lookup. As of this writing it takes 4 different arguments. You have --name, --tag, --global and --mention. The next couple of releases these arguments will change but the same basis will apply. All but --global will query the Panther Lily database. Instead, --global will search within Reddit Zulu's discord to find that user and display some information about them. The command can take the discord username, discord ID, discord mention, and even their full discord handle. What is return is the following:



In this example I found a random user in #zulu-atrium. I right clicked their user name and hit copy ID. Then I pasted it into the command. This command was designed for working with users in #zulu-atrium to confirm their discord ID, when they joined and if they are part of any other Zulu teams.

The other three arguments are just different ways to query the Panther Lily database using different pieces of information of the user. It looks something like this:



In this example I used the `--name` shortcut `-n`. More info on shortcuts can be found in the shortcut section of this guide. Some of the information you can see is the users Clash of Clans tag, their level, discord ID, when they were registered into the database, and their status. The final section is the users profile notes that we mentioned in the notes section of this guide. As you can see it is disabled. Panther Lily is only authorized to show the Profile Notes section if it was called within a CoC Leadership channel such as `#bot-spam-leadership`. Let's run the command again in that channel.



This time we used the --mention shortcut -m. Now since we used the command in an authorized channel, we are able to see the notes of that user. We can pull those messages IDs with the panther.viewnote command as mentioned above.