

Discord Bot

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Contents

1	About Discord and Bot	2
2	Groovy-HD Bot	3
3	Add Groovy-HD in your server	4
4	About Commands	6
5	Bot At low level	13

1 About Discord and Bot

What is Discord ?

[Discord](#) is a voice and text communication platform for gamers. Players, streamers, and developers use Discord to discuss games, answer questions, chat while they play, and much more. It is nearly a one-stop shop for gaming communities. While there are many things you can build using Discord's [API](#), this tutorial will focus on particular things like how to add bot in a server ? and how to use it ?

What is Bot?

Discord is growing in popularity. As such, automated processes, such as banning inappropriate users and reacting to user requests are vital for a community to thrive and grow. Automated programs that look and act like users and automatically respond to events and commands on Discord are called **bot**. Discord bots have nearly [unlimited applications](#).

For example, let's say you're managing a new Discord guild(server/group) and a user joins for the very first time. Excited, you may personally reach out to that user and welcome them to your community. You might also tell them about your channels or ask them to introduce themselves. The user feels welcomed and enjoys the discussions that happen in your guild and they, in turn, invite friends. Over time, your community grows so big that it's no longer feasible to personally reach out to each new member, but you still want to send them something to recognize them as a new member of the guild. With a bot, it's possible to automatically react to the new member joining your guild. You can even customize its behavior based on context and control how it interacts with each new user. This is great, but it's only one small example of how a bot can be useful. There are so many opportunities for you to be creative with bots, once you know how to make them.

2 Groovy-HD Bot

Groovy-HD is a multi functional bot which can be used for..

- To Listen Songs
- Image Conversions and Filtering
- Quiz and Hangman (With hints) game with combine leader board
- Creating collage(Merged Image)
- To get Word definition, synonyms and pronunciation
- Image Steganography

3 Add Groovy-HD in your server

1. First, Visit our website [link](#) and click on Add into my server

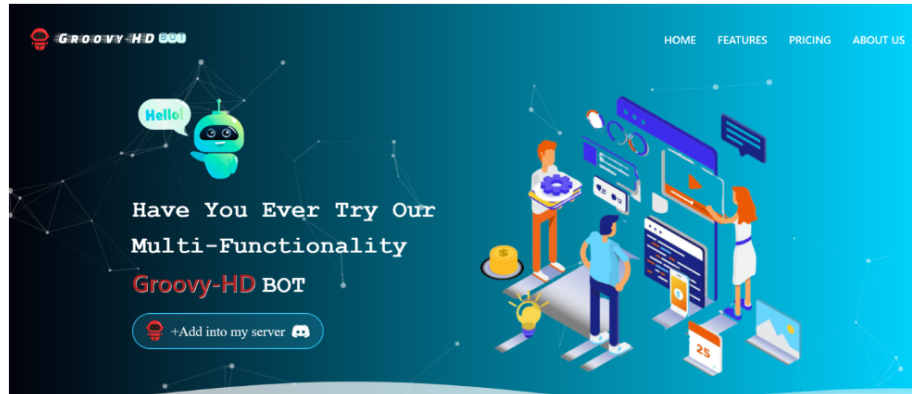


Figure 1: Our Website

2. Select a server in which you want to add Groovy-HD

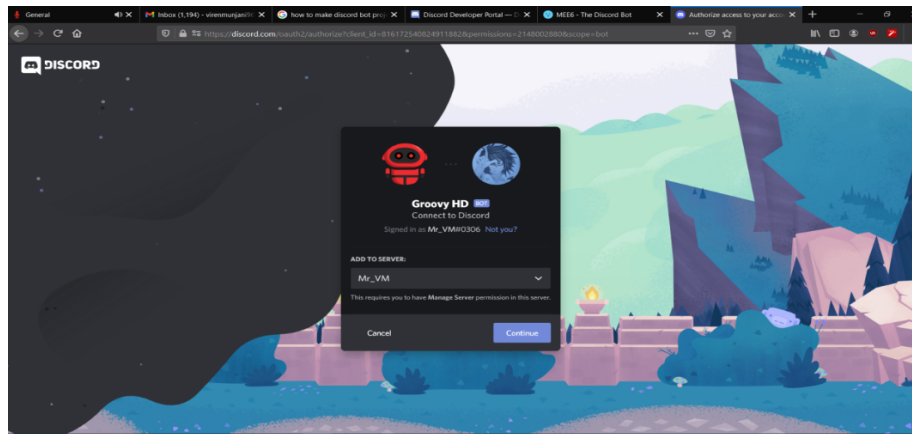


Figure 2: Select Server

3. Give Permissions to Groovy-HD (Preferably All) and click on Authorize.

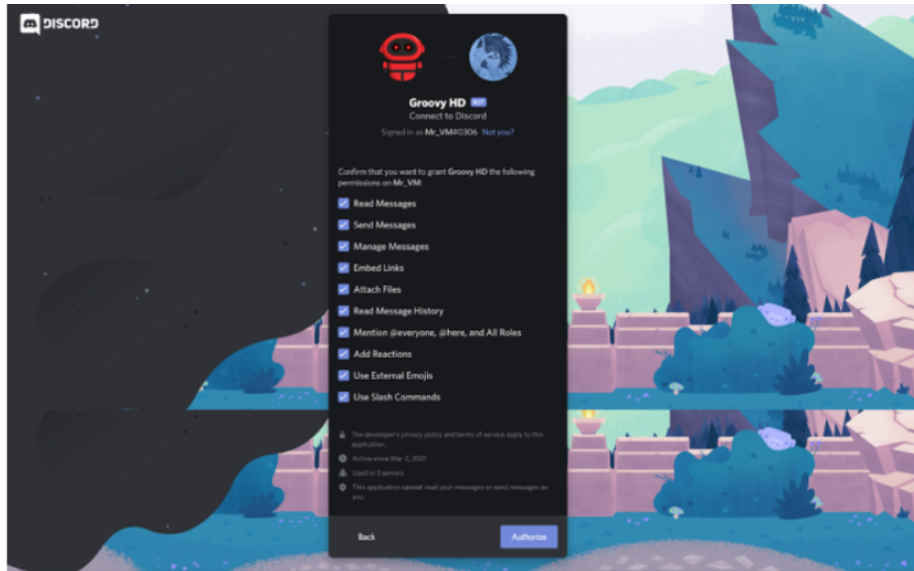


Figure 3: Give Permission

4. And Here We Go! Welcome Groovy-HD!

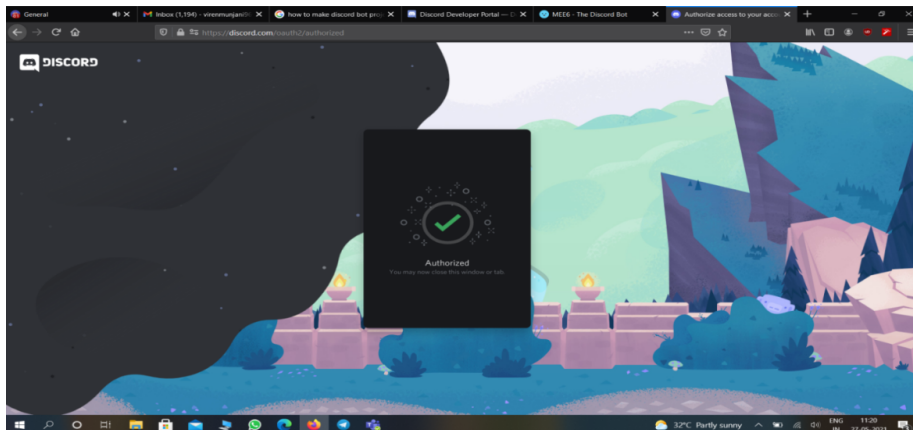


Figure 4: Authorization Successful

4 About Commands

List of commands are mentioned here, We will see the functionality of some of the commands! Never forget to add '!' (Exclamation mark) before any command.

1. !help

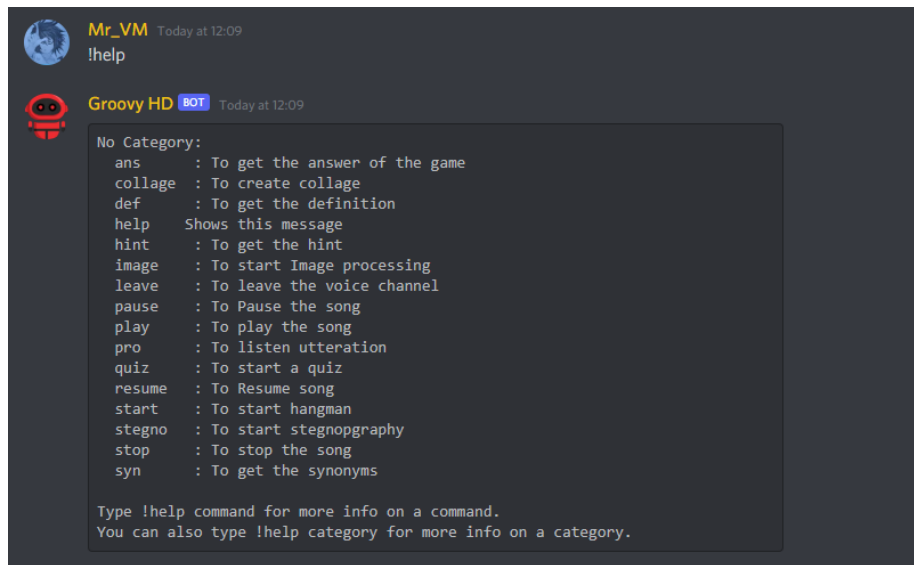


Figure 5: Help

2. !def (Word you want to define) :

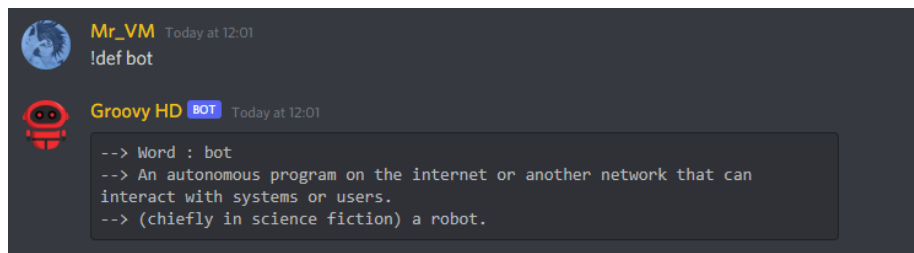


Figure 6: Get definition

3. !syn (Word)

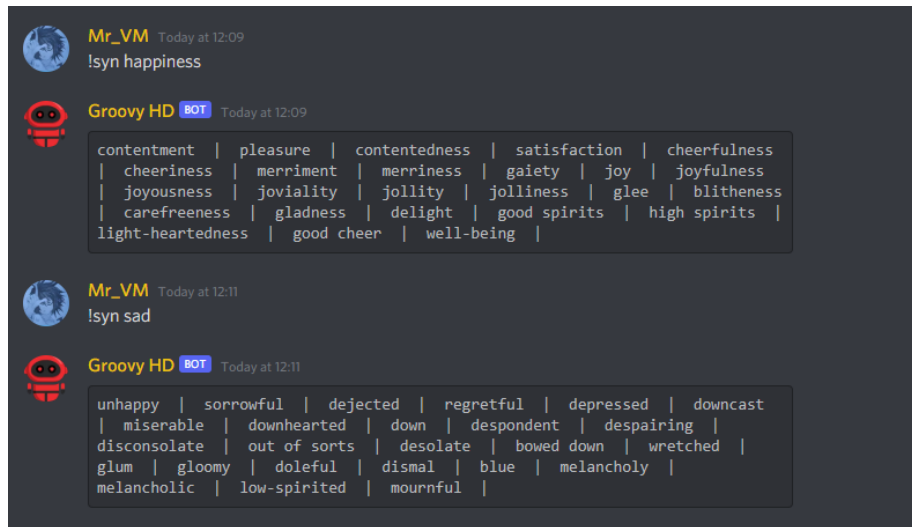


Figure 7: Get Synonyms

4. !quiz : Game of quiz will be held, fastest one to answer will get a point (In case of correct answer), and score will be added to leader board as well.

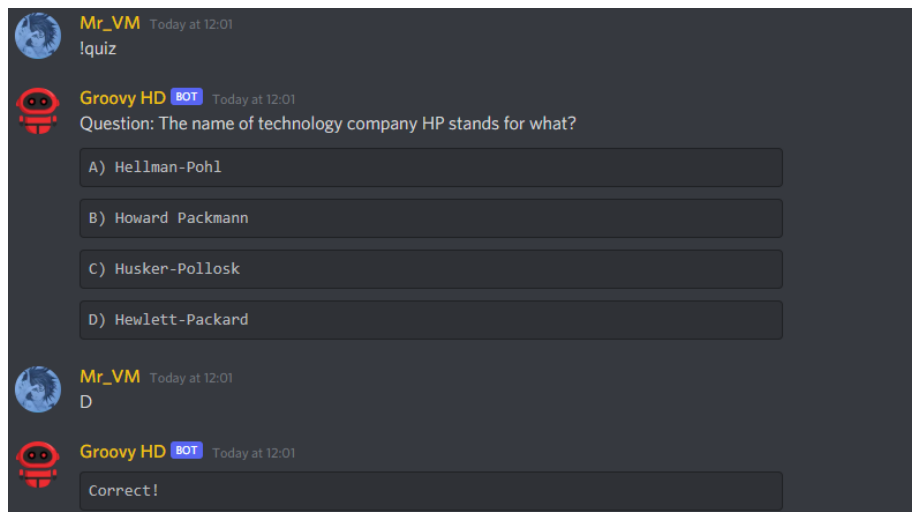


Figure 8: Quiz Game

5. !pro (Word) : It will provide accurate pronunciation in a voice channel, where everyone can listen to it and also you will get IPA of that word.

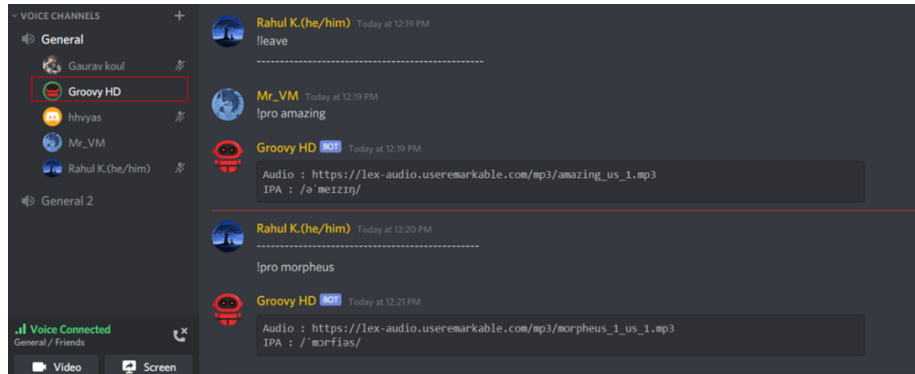


Figure 9: Get Pronunciation

6. !start (Multiplayer game with hints and leader board) :

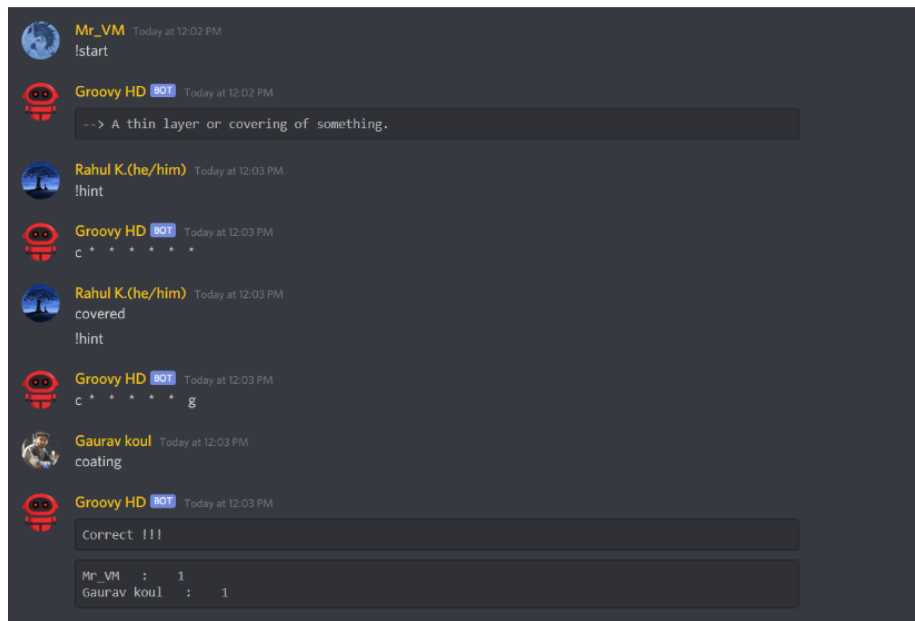


Figure 10: Play Game

7. !stegno : In Image steganography we can encrypt one image into another image, and send it to someone who can decrypt one of the image
- (a) After writing !stegno command, Groovy-HD will ask you to choose between encryption/decryption.

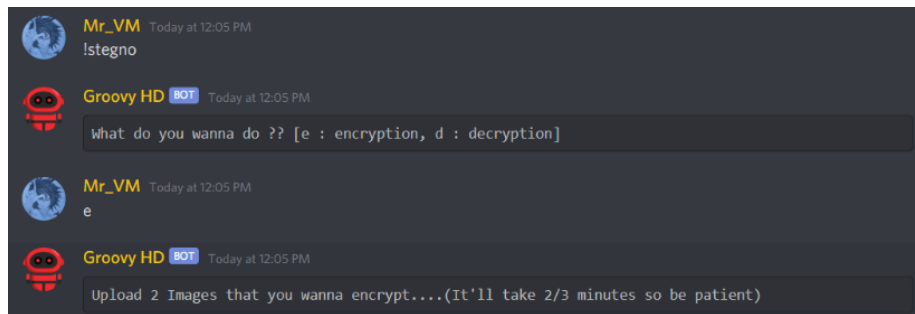


Figure 11: Command for steganography

- (b) Uploading Two images

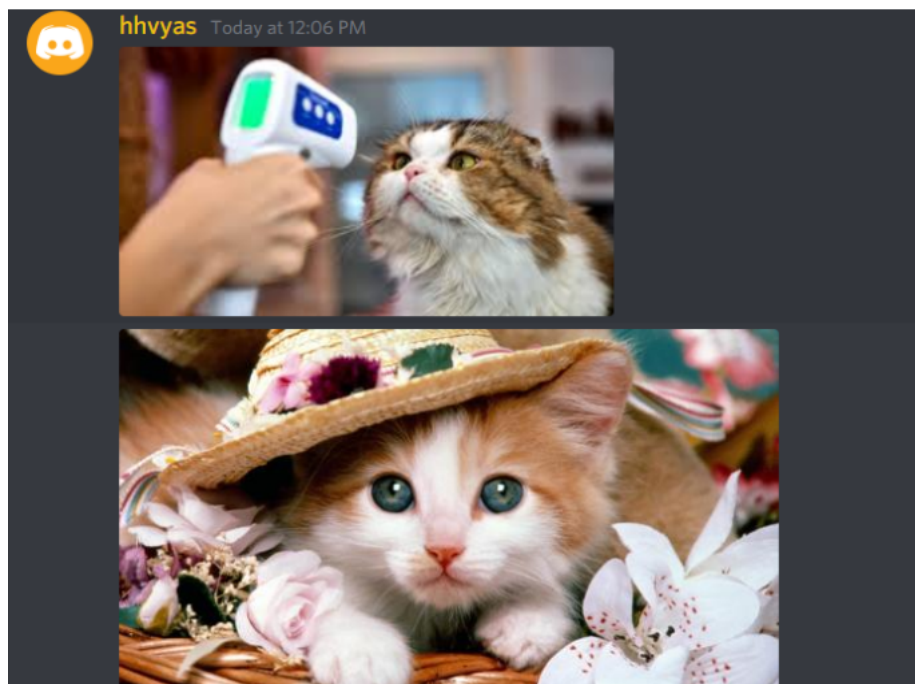


Figure 12: Input Images

(c) Output: In which second cat will be encrypted in the first one



Figure 13: Encrypted Image

(d) Now, you can check by decrypting this image as well and you will get 2 images (Try it yourself by adding our bot to your server :))

8. !image (Image Filtering/Processing) :

(a) It will provide you with the following functionalities..

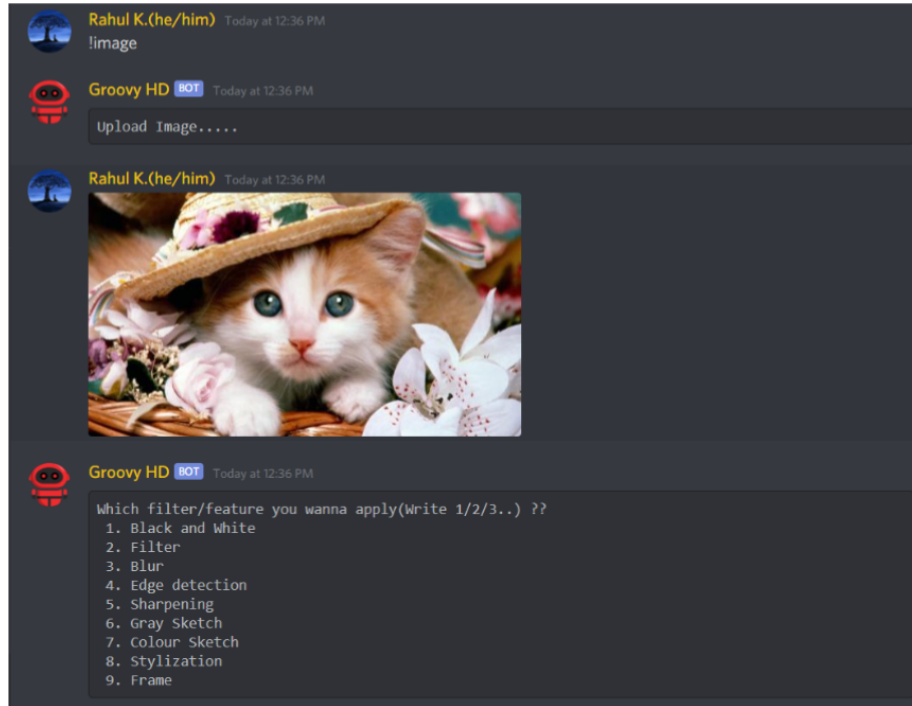


Figure 14: Input format

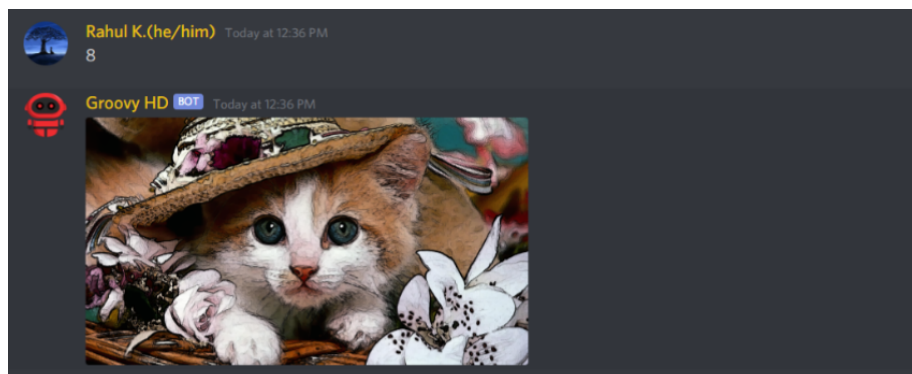


Figure 15: Stylized image

9. !collage: It will ask you for 4 images that you want to make collage for..
After uploading 4 cute cats we found this..

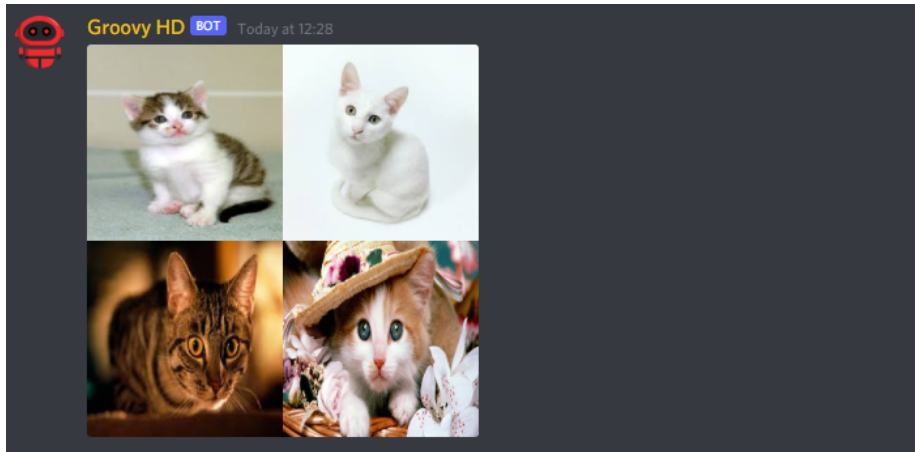


Figure 16: Collage

We would Recommend you to add our bot to your server and give feedback and suggestions for further improvements!

5 Bot At low level

- Language : Python
- Library/Framework : Open-CV , flask , NumPy , DiscordPy , json , PIL
- We've used [API](#) for getting quiz question and [API](#) for getting meaning and synonyms of word. We've used Gaussian kernel for blurring image ,canny algorithm for detecting an edges and convolution for sharpening and filtering.
- Anyone who wants to manipulate our [Code](#) can pull repository and create a better version.