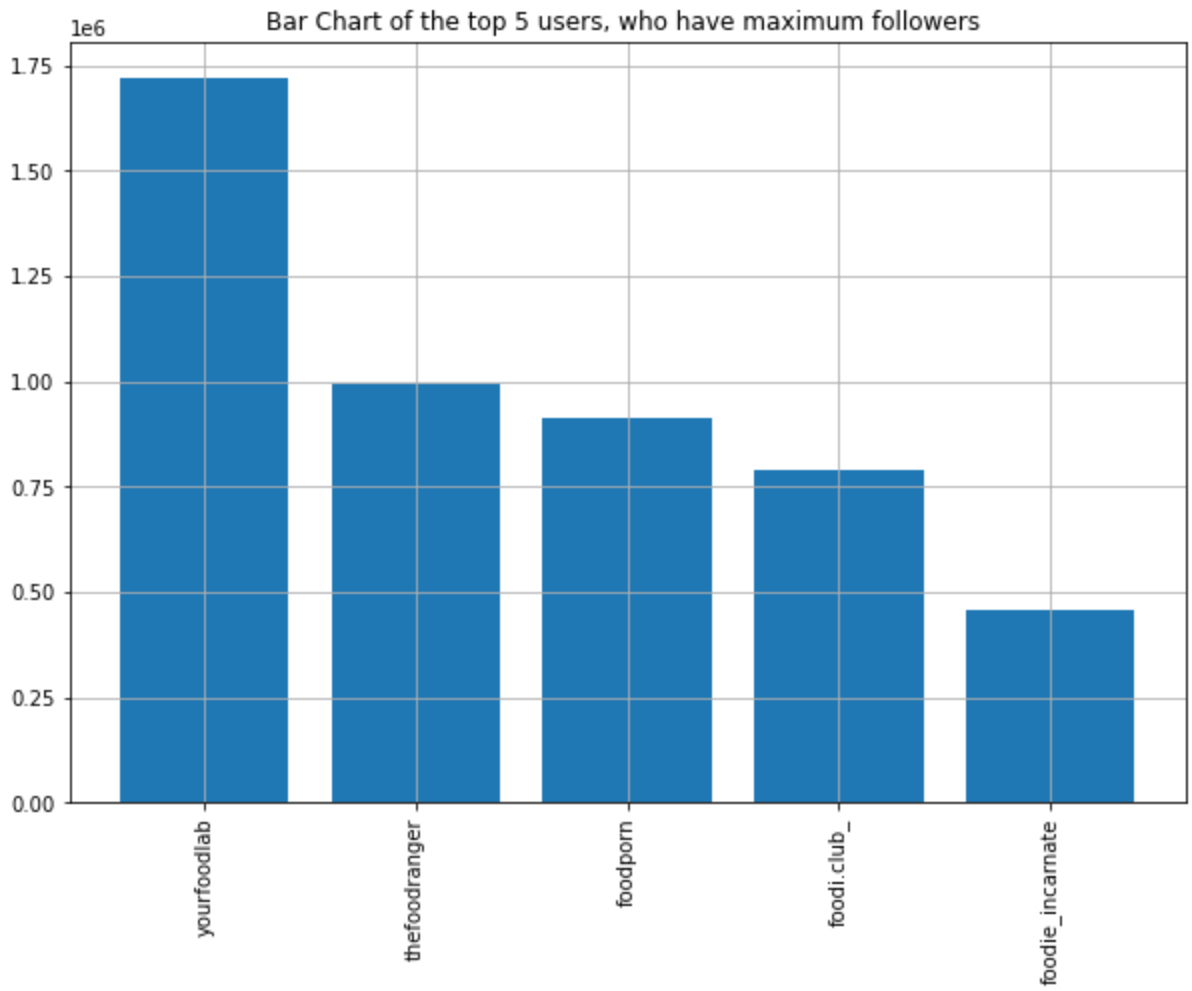
InstaBot -2

Question 1: Now your friend has followed a lot of different food bloggers, he needs to analyse the habits of these bloggers.

1. **From the list of instagram handles you obtained when you searched 'food' in a previous project. Open the first 10 handles and find the top 5 which have the highest number of followers**
2. **Now Find the number of posts these handles have done in the previous 3 days.**
3. **Depict this information using a suitable graph**

Answer 1.1: we are following these steps.

- Loading the packages and login on instagram (same code as above).
- Found the search button element and passed the "food" keyword.
- Retrieved all the list form search box with the help of web scraping and prepared a list (handles), that stored the user_name & reference link of the profile.
- One by one pass the top 10 user profile from the list to get_follower_count function and stored into the list (user_id_followers ['followers','user_name','user_profile_reference'])
- Draw a chart according to the user_name and no. of followers.

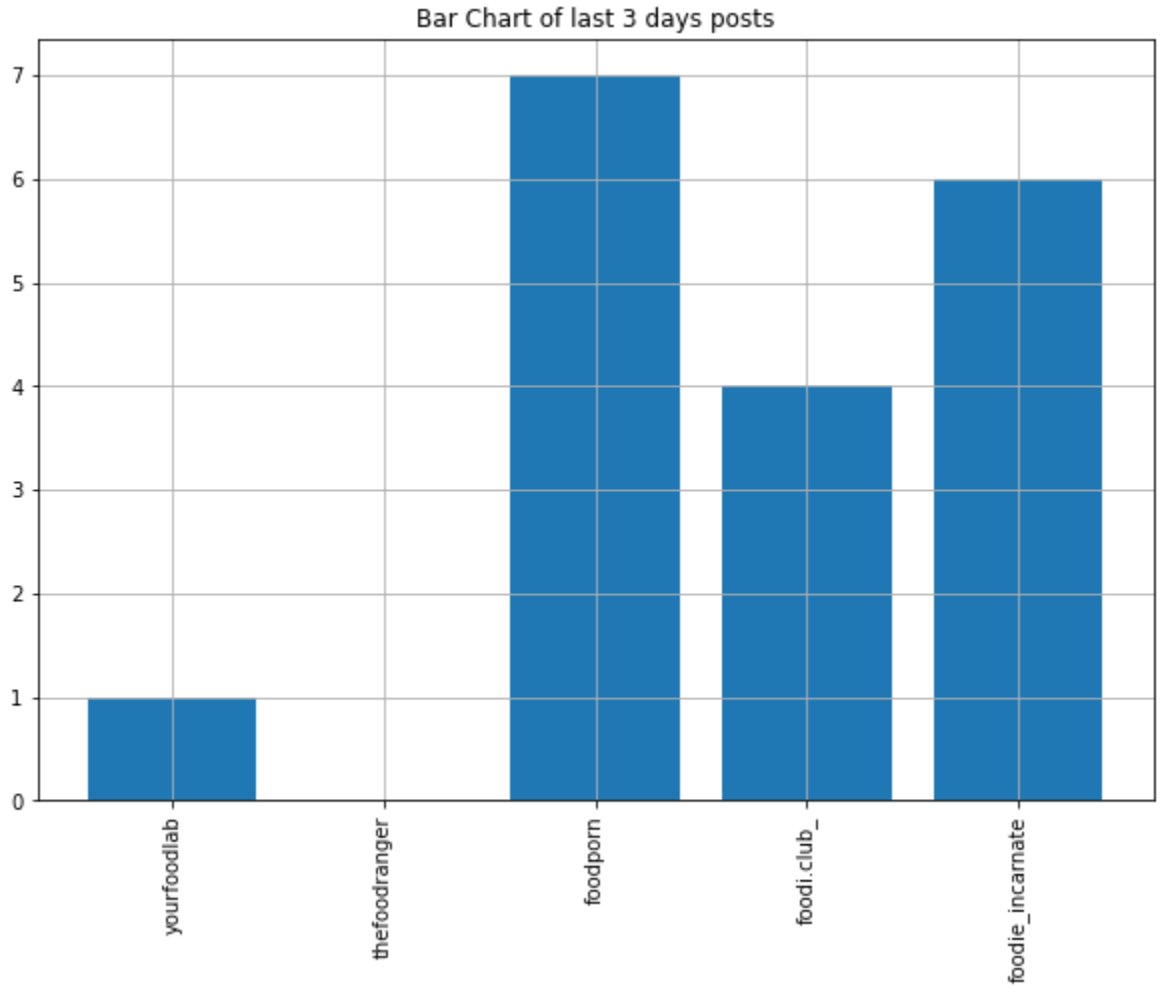


Answer 1.2 : we are following these steps.

- One by one pass the top 10 user profile from the user_id_follower list.
- We found the post element and clicked on it.
- We get the date of the post with the help of beautifulsoup.
- Then we find the difference between the current date and post date. If it is less than 3 then we do one increment in the no_of_posts. and return this.

Answer 1.3 : we are following these steps.

- Draw a bar graph for no_of_posts and users.



Question 2 : Your friend also needs a list of hashtags that he should use in his posts.

1. **Open the 5 handles you obtained in the last question, and scrape the content of the first 10 posts of each handle.**
2. **Prepare a list of all words used in all the scraped posts and calculate the frequency of each word.**
3. **Create a csv file with two columns : the word and its frequency**
4. **Now, find the hashtags that were most popular among these bloggers**
5. **Plot a Pie Chart of the top 5 hashtags obtained and the number of times they were used by these bloggers in the scraped posts.**

Answer 2.1: we are following these steps.

- We made a post_check function that takes the user profile as an argument and opens the profile.
- We found the element for the post button and clicked on it.
- We are using a while loop counter that counts the top 10 recent post.
- Inside the while loop we found the element of the content button and get their text through beautifulSoup. We merge this content text with a “texts” string.
- We found the element for the LIKE button and got the total likes , stored into the “likes” variables. And add these likes into the total_likes variable
- When we get 10 posts then we break from the loop. And prepared a list [texts,total_likes,post_for_like] that we would return.
- Then we use the for loop and one by one from each cell we pass the reference of the user profile to the post_check function .

- We print the user_handles and the post_contents.

Answer 2.2 : we are following these steps.

- We made a function get_word_frequency that one by one read the word from the content text and stored into the two dictionaries, one for the Hashtags_dictionary and another one for word_dictionary.
- We ran a for loop that retrieved the data from the post_contents list.
- And we passed the data to get_word_frequency function, as an argument.

Answer 2.3 : we are following these steps.

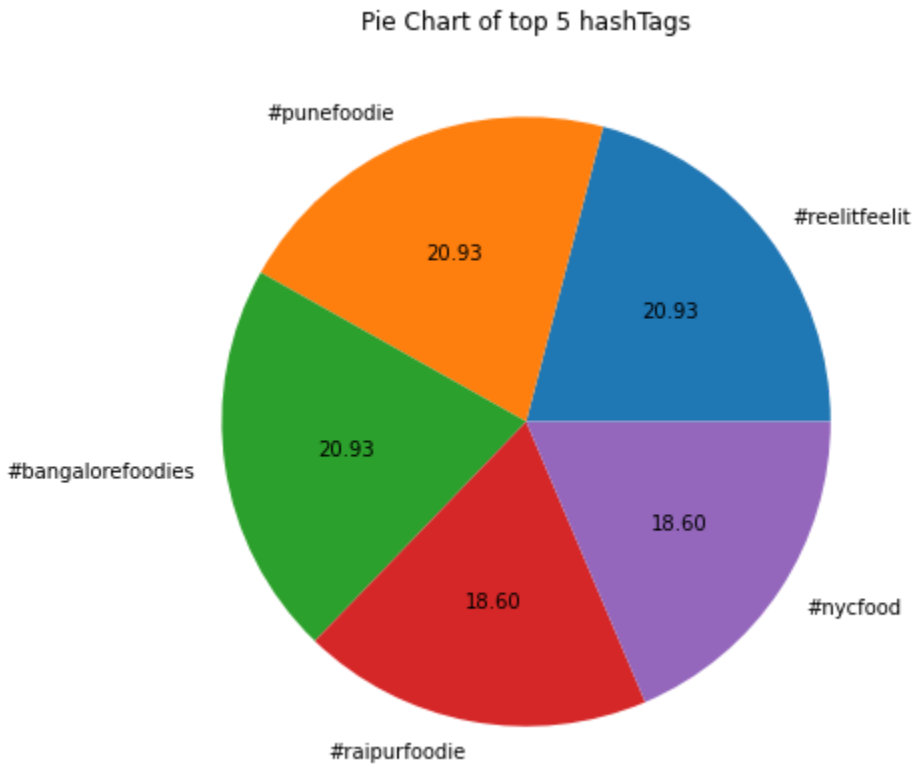
- We make a list of 'words' that contains the word, which we retrieved from the get_word_frequency dictionary.
- We make a list 'words_frequency' that contains the word, which we retrieved from the get_word_frequency dictionary.
- Finally we create the "WordFrequency.csv" csv file with the help of Pandas DataFrame.

Answer 2.4: we are following these steps.

- We sort the hastag_dictionary , in the decreasing order according to the Hashtag counts.
- We made two lists: top_five_hastags and hashtag_counts.

Answer 2.5 : we are following these steps.

- We used these lists top_five_hastags and hashtag_counts for plotting the graph.
- Finally we plot a pie chart for top 5 hashtags.

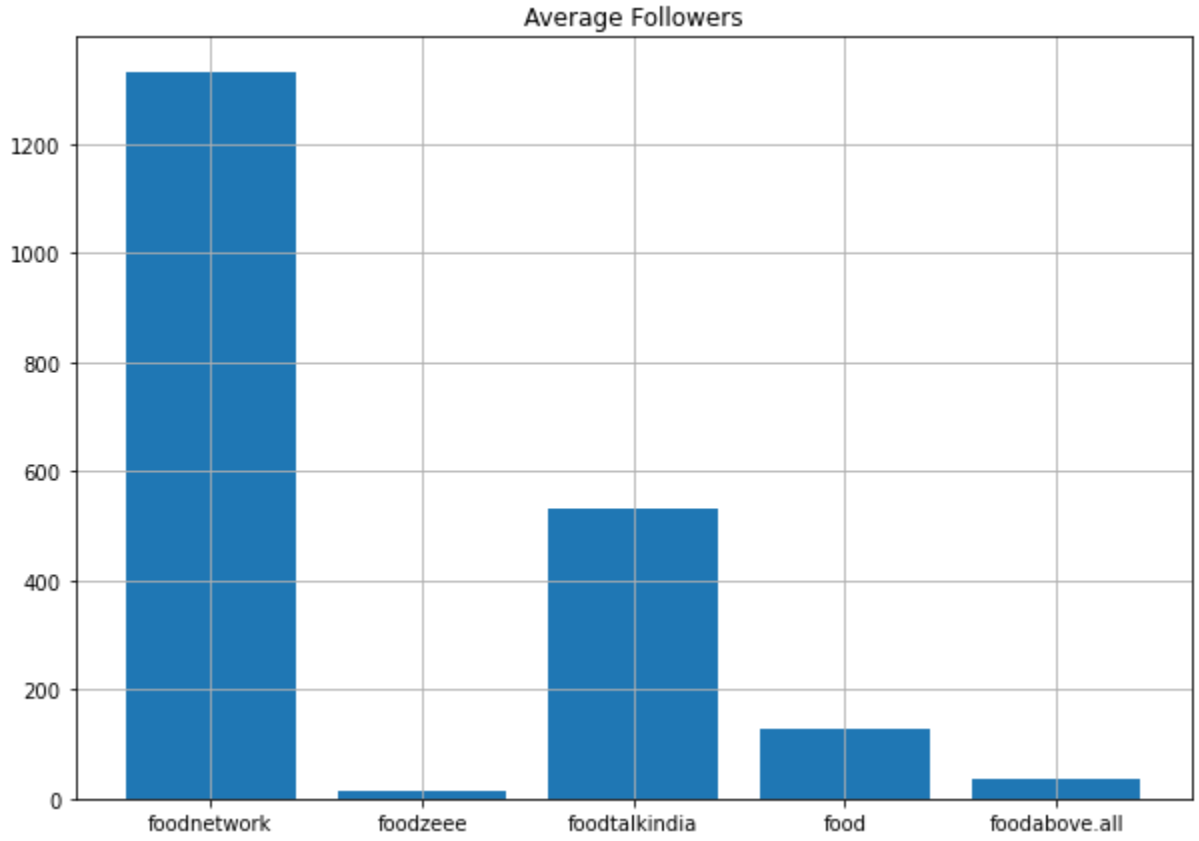


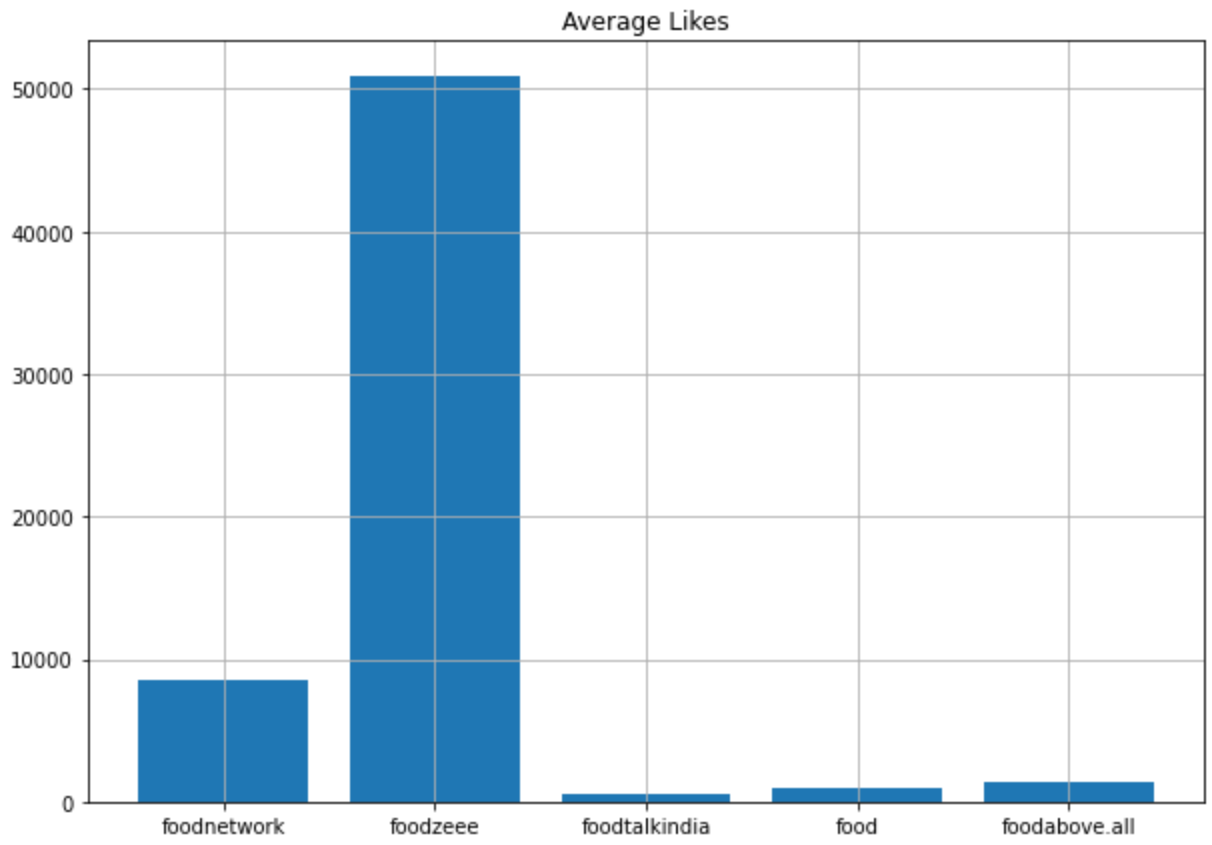
Question 3 : You need to also calculate average followers : likes ratio for the obtained handles. Followers : Likes ratio is calculated as follows:

1. **Find out the likes of the top 10 posts of the 5 handles obtained earlier.**
2. **Calculate the average likes for a handle.**
3. **Divide the average likes obtained from the number of followers of the handle to get the average followers:like ratio of each handle.**
4. **Create a bar graph to depict the above obtained information.**

Answer : We have done all the four parts of this question here. we are following these steps.

- We used a loop and retrieved the data from two lists user_handles and post_contents.
- print the total likes for top 10 recent posts
- Same here we use the for loop and find average likes with the help of post_contents list. We store into the “average_likes_list” list.
- Now we find the Ratio Avg Followers : Avg Likes. Firstly we find average followers, divide the total followers by average likes.
- We stored the answer into the avg_followers list. And print the ratio here too.
- We plot a bar graph for Average Followers.
- We plot a bar graph for Average Likes.


Average Followers
1200
1000
800
600
400
200
0
foodnetwork
foodzeee
foodtalkindia
food
foodabove.all


Average Likes
50000
40000
30000
20000
10000
0
foodnetwork
foodzeee
foodtalkindia
food
foodabove.all