driver.get('https://www.instagram.com/') #navigating to the instagram log in page wait = WebDriverWait(driver, 10) name= wait.until(EC.presence_of_element_located((By.NAME, 'username'))) #locating the box to insert name of the user name.send_keys('ra.njeet9098') # passing username pas=driver.find_element_by_name('password') # locating the box to insert the password of the pas.send_keys('Ranjeet1996@') #passinf password 1. Now your friend has followed a lot of different food bloggers, he needs to analyse the habits of these bloggers. A. From the list of instagram handles you obtained when you searched 'food' in previous project. Open the first 10 handles and find the top 5 which have the highest number of followers In [68]: search=driver.find element by xpath('//input[contains(@class,"XTCLo")]') #loacting the search search.send_keys("food") #sending values for searching time.sleep(3) val=driver.find_elements_by_xpath('//div[@class = "fuqBx"]/a["href"]') #fetching food list *Handles* food=[] #creating an empty list for appending the list of food handlers for i in val[0:10]: #selecting first 10 if 'explore' in i.get_attribute('href'): #if explore present in link then it is h astags continue else: s = i.get_attribute('href').split('/') #https://www.instagram.com/foodtalkindia # after split s= ['https:','','www. #print(s[3]) instagram.com','stockholmfood'] if 'foodie_since97' not in s[3]:#as 'foodie_since97' private account we can't access the followers food.append(s[3])#appending s[3] in food_list a=driver.find_element_by_xpath('//input[contains(@class,"XTCLo")]') #seaeching input box a.clear() #clearing the input box b=driver.find_element_by_class_name('coreSpriteSearchClear').click() #selecting clear box by class name and clicking it #new food=food[:10] followers=[] #creating an empty dictionary for storing the nuber of followers. for i in food: #opening each and ever profile of first 10 followers and then navigating back to the home-page search=driver.find_element_by_xpath('//input[contains(@class,"XTCLo")]') #loacting the s earch box #a.clear() search.send_keys(i) #sending the values for serching in search bar b = wait.until(EC.presence of element located((Bv.CLASS NAME, 'vCE8d'))) #selecting t he follower-page b.click() #clicking it to open the profile time.sleep(3) l=driver.find_element_by_xpath('//a[contains(@class, "-nal3")]/span').get_attribute('tit le') #ectracting the number of followers s=1.replace(',','') Out[68]: {'foodnetwork': 10983105, 'vourfoodlab': 1546304, 'foodrush.recipe': 617838, 'foodie_incarnate': 244497, 'delhifoodwalks': 133288} B. Now Find the number of posts these handles have done in the previous 3 days. In [69]: | no_of_post={} **for** handle **in** od: search = driver.find_element_by_xpath('//div[contains(@class,"LWmhU")]/input') #input search.send_keys(handle) #send h adles to search box b = wait.until(EC.presence_of_element_located((By.CLASS_NAME, 'z556c'))) #first profile first_search = driver.find_element_by_class_name('z556c') first_search.click() a= wait.until(EC.presence_of_element_located((By.XPATH,'//input[contains(@class,"XTCL o")]'))) #clearing input box a.clear() count = 0 i=0 for i in range(12): driver.execute_script('window.scrollBy(0,document.body.scrollHeight);') #scrolling 7 time to done side time.sleep(1) data=driver.find_elements_by_xpath('//div[contains(@class,"_9AhH0")]') #fetching the post for j in range(12): driver.execute_script('window.scrollBy(0, -document.body.scrollHeight);') #scrolling upside to move top time.sleep(1) #driver.execute_script('window.scrollBy(0,500);') #scrolling downside ot mave till post final=data for i in range(len(final)): post=driver.find_elements_by_xpath('//div[contains(@class,"_9AhH0")]') #finding post driver.execute_script('window.scrollBy(0,80);') #scrolling by 80 downside wait = WebDriverWait(driver, 15) #wait time post[i].click() #click on each post test= wait.until(EC.presence_of_element_located((By.XPATH,'//time[contains(@class,"F H9sR")]'))) #test button val=test.text #fetch text time.sleep(2) if val[-1]=='d': #d for days, h for hours and m for mins new_val=int(val[0:-1]) if new_val<4: #4 represents 4 day and so i have used this condition to extart in fo for only three notes count=count+1 else: new=driver.find_elements_by_xpath('//button[contains(@class,"wp06b")]/div')[-1] #extractint the close button new.click()#clicking the close button to close the post break else: if val[-1]=='h': #d for days,h for hours and m for mins count=count+1 elif val[-1]=='m': #d for days,h for hours and m for mins count=count+1 else: new=driver.find elements by xpath('//button[contains(@class,"wp06b")]/div')[-1] #extractint the close button new.click() #clicking the close button to close the post break close_btn = driver.find_elements_by_xpath('//button[contains(@class, "wp06b")]/div')[-1] #post close button close btn.click() #click on close button time.sleep(2) foodnetwork 30 yourfoodlab 4 foodrush.recipe 2 foodie_incarnate 5 delhifoodwalks 4 C. Depict this information using a suitable graph. In [70]: plt.bar(handles, number_posts, width=0.6) plt.xticks(rotation=70) plt.title('insta handles VS Number of posts') plt.xlabel('Instagram Handlers name') plt.ylabel('Number of posts posted in last 3 days') plt.show() insta handles VS Number of posts 30 last 3 days .⊑ 20 posted 15 10 οţ Instagram Handlers name 1. Your friend also needs a list of hashtags that he should use in his posts. A. Open the 5 handles you obtained in the last question, and scrape the content of the first 10 posts of each handle. In [72]: top_5_post_content={} for t in od: post_content={} data=driver.find_element_by_xpath('//input[contains(@class, "XTCLo")]') #input box data.send_keys(t) #send hadlers name to search box driver.implicitly_wait(10) data=driver.find_element_by_xpath('//span[contains(@class, "Ap253")]') #first profile data.click() #clicking it to open the profile page driver.implicitly_wait(10) for i in range(1): driver.execute_script('window.scrollBy(0, document.body.scrollHeight);') #down scrolling time.sleep(1) data=driver.find_elements_by_xpath('//div[contains(@class,"_9AhH0")]') #fetching the data for j in range(1): driver.execute_script('window.scrollBy(0, -document.body.scrollHeight);') #up scrolling time.sleep(1) driver.execute_script('window.scrollBy(0,500);') driver.execute_script('window.scrollBy(0,500);') for p in range(10): data=driver.find_elements_by_xpath('//div[contains(@class,"_9AhHO")]')#fetch_the_pos driver.execute_script('window.scrollBy(0,80);') # scroll by 80 driver.implicitly_wait(10) data[p].click() #clicking on each post to extract the contents driver.implicitly_wait(10) con='post'+str(p+1) data=driver.find_element_by_xpath('//div[contains(@class,"C4VMK")]/span')#clicking o n each post value=data.text#text data post_content[con]=value new=driver.find_elements_by_xpath('//button[contains(@class, "wp06b")]/div')[-1] #ext ractint the close button new.click()#clicking the close botton top_5_post_content[t]=post_content foodnetwork {'post1': 'Spicy Garlic Wings (with @guyfieri) 6\n\nScreaming red wings from @ob_noodlehouse are a garlic lover\'s dream!\n\nCatch #DDD with @guyfieri > Fridays at 9|8c and subscribe to @discoveryplus to stream the entire library and so much more: http://discoverypl.us/34WCE6K. #discoveryplus (Head to our IGTV for the clickable link!)\n"', 'post2': 'Sausage Apple Pizza (with @guyfieri)\n\nSausage + apples + bechamel = our DREAM pizza! ◀♥️ We are in LOVE, @blac kbirdfargo!\n\nCatch #DDD with @guyfieri, Fridays at 9|8c and subscribe to @discoveryplus to stream the entire series and so much more: http://discoverypl.us/2WTJXI2 (Head to our IGTV to get the clickable link!) #discoveryplus', 'post3': "Brown Butter Cake (with @kardeabrown)\n\n Kardea's festive cake with spiced chocolate ganache is perfect for that special birthday 👛💯 \n\nWatch a NEW #DeliciousMissBrown > Sunday at 12|11c. Plus, subscribe to @discoveryplus to stream #DeliciousMissBrown and so much more: http://discovervpl.us/2WTJXI2 #discovervplus\n\n Get the recipe: http://foodtv.com/3nAqLKe. (Head to our IGTV for clickable links!)", 'post4': "Fried Chicken Sandwich (w/ @chefanneburrell)\n\nWe're getting decadent with Anne Burrell's c rispy fried chicken sandwich!\n\nDon't miss new episodes of #WorstCooks Sundays at 9|8c and s ubscribe to @discoveryplus to stream the entire series and so much more: https://discoverypl. us/3lP1wmt! #discoveryplus\n\nGet the recipe: https://foodtv.com/35ZBat5 (Head to our IGTV to get a clickable link!)", 'post5': "You can throw this easy, lemony pasta dish together in no time! 🥭 \u2060\n\u2060\nCatch #TheKitchen > Saturdays at 11a|10c and click the link in our bi o to subscribe to @discovervplus to stream the entire series and so much more. #discovervplus \u2060\n\u2060\nSearch for @GeoffreyZakarian's Bucatini al Limone recipe on FoodNetwork.co m.", 'post6': 'These custardy Korean steamed eggs are the DEFINITION of light and fluffy 🕒 😮 \u2060\n. . .\u2060\nLink in bio for Gyeran Jjim!', 'post7': "Recipe of the Day: @InaGarten's Chicken Stew with Biscuits b Click the link in our bio to get the recipe!", 'post8': "We're OBSESSED with this massive ice cream cone made out of CUPCAKES! $\frac{1}{9} \triangleq \text{\colored}$ \u2060\nWatc h an all-new episode of #KidsBakingChampionship > tonight at 9|8c. Stream every episode on @d iscoveryplus with the link in our bio. #discoveryplus\u2060\n. . .\u2060\nFind the recipe for Ice Cream Cone Pull-Apart Cupcake Cake on FoodNetwork.com!", 'post9': 'Coffee Cookie Butter C ones (with @mollyyeh)\n\nThis ice cream treat will bring back sweet childhood memories! \(\int \)\n\n Watch a NEW #GirlMeetsFarm > Sunday @ 11a|10c. Plus, subscribe to @discoveryplus to stream th e series and so much more: http://discoverypl.us/2WTJXI2 #discoveryplus!\n\nGet the recipe: h ttp://foodtv.com/35fAHme. (Head to our IGTV for clickable links!)', 'post10': "Tagalongs beco me EVEN more irresistible when they're deep-fried! Just trust us on this one ♀\u2060\n. . yourfoodlab {'post1': 'Trending wrap hack #1 Aloo Tikki wrap! Will be uploading 5 more of these crazy wra p ideas. Stay tuned $\frac{1}{2}$ \n.\n.\n.\n#reeitfeelit #reelkarofeelkaro #reelsinstagram #foodstagram #tortilla #wraphack #tortillawrap #food #hack #hackvideo', 'post2': 'Cheesy Tava Paneer Hot D og by Chef @sanjyotkeer\n\n.\nThis is an amazing recipe and it is adaptation of my preciou s masala paneer hot dog recipe which also is an adaptation of an hot dog I used to have in my school canteen. I juta got this idea that we could make it even better and the sautéed caramo zed onions and the cheesy sauce do the trick. Try this recipe and I am sure you guys will lov e it! Cheers!\n\n.\n#recipeoftheday #recipes #food #hotdog #hotdoglovers #streetfood #foodpor n #yummy #yummlicious #cheesyfood #cheesy #frieslover #sanjyotkeer', 'post3': 'Cheesy Tava Pa neer Hot Dog Recipe is out now on YouTube and Facebook! Check it out now!\n.\n.\nThis is an amazing recipe and it is adaptation of my precious masala paneer hot dog recipe which also is an adaptation of an hot dog I used to have in my school canteen. I juta got this idea that we could make it even better and the sautéed caramozed onions and the cheesy sauce do the trick. Try this recipe and I am sure you guys will love it! Cheers!\n\n.\n#recipeoftheday #recipes # food #hotdog #hotdoglovers #streetfood #foodporn #yummy #yummlicious #cheesyfood #cheesy #fri eslover #sanjyotkeer', 'post4': 'Aloo Tikki Makhani Sizzler by Chef @sanjyotkeer\n\n.\n.\n. I just love sizzlers and especially when it's winters, that hot smoky sizzler is something yo u will enjoy the most. I have had many variations but this idea suddenly struck me and I had to give it a try. The aloo tikki and makhani come really well together. You can also replace it with paneer or chicken to make a butter chicken version!\nDo try this unique recipe idea a nd let me know how you guys liked it! Cheers!\n.\n.\n#sizzlers #vegetarian #vegetarianrecipes #vegsizzler #foodporn #foodstagram #recipeoftheday #easyrecipe #alootikki #aloorecipes #sanjy otkeer #mumbai_iq', 'post5': 'Malai Kofta by Chef @sanjyotkeer\n.\n.\n.\n#recipe #foodie #ind iancuisine #streetfood #indianfood #foodporn #streetfoodlover #kofta #koftacurry #sanjyotkee r', 'post6': 'Aloo Tikki Makhani Sizzler Recipe is out now on YouTube and Facebook! Check it out now! $\n.\n.\n.\n.\n$ just love sizzlers and especially when it's winters, that hot smoky si zzler is something you will enjoy the most. I have had many variations but this idea suddenly struck me and I had to give it a try. The aloo tikki and makhani come really well together. Y ou can also replace it with paneer or chicken to make a butter chicken version!\nDo try this unique recipe idea and let me know how you guys liked it! Cheers!\n.\n.\n#sizzlers #vegetaria n #vegetarianrecipes #vegsizzler #foodporn #foodstagram #recipeoftheday #easyrecipe #alootikk i #aloorecipes #sanjyotkeer #mumbai_ig', 'post7': 'Matar Paneer Recipe by Chef @sanjyotkeer\n \n.\n.\nGreen peas are in season and I was getting a lot of requests for Matar paneer as i t is widely made everywhere. There was a specific request for dhaba style Matar paneer so her e it is. Tried to keep it simple but the taste is just out of the world! Really amazing.\nTry the recipe with tandoori roti or laccha paratha to get the dhaba vibe. Please use fresh green peas and not frozen ones, as nothing cant be better than these fresh green pearls.\n.\n.\n.\n #recipe #paneerrecipes #paneer #paneerlovers #food #foodie #foodiesofinstagram #foodporn #str eetfood #dhabastyle #dhabafood #sanjyotkeer', 'post8': "Layered Red Sauce Pasta with Vegetabl es in White Sauce by Chef @sanjyotkeer\n\nTangy red sauce with spaghetti layered with vegetab les in creamy white sauce. It's a combo to die for. I recently shot white sauce pasta and thi s idea instantly came to my mind. This turned out just as I thought. Do try this recipe at ho me, I know a lot of you guys are waiting for it. Got a lot of dms asking me when the recipe w ould be out. So here it is. Have fun with it!\n.\n.\n.\n#recipe #food #foodphotography #spagh etti #spagetti #pasta #pastarecipes #pastalover #pastapasta #sanjyotkeer", 'post9': 'Matar Pa neer Recipe is out now on YouTube and Facebook! Check it out now!\n\nGreen peas are in season and I was getting a lot of requests for Matar paneer as it is widely made everywhere. There w as a specific request for dhaba style Matar paneer so here it is. Tried to keep it simple but the taste is just out of the world! Really amazing.\nTry the recipe with tandoori roti or lac cha paratha to get the dhaba vibe. Please use fresh green peas and not frozen ones, as nothin g cant be better than these fresh green pearls.\n.\n.\n.\n.\n#recipe #paneerrecipes #paneer #pan eerlovers #food #foodie #foodiesofinstagram #foodporn #streetfood #dhabastyle #dhabafood #san jyotkeer', 'post10': "Layered Red Sauce Pasta with Vegetables in White Sauce Recipe is out no w on YouTube and Facebook! Check it out now!\n.\n.\nTangy red sauce with spaghetti layered wi th vegetables in creamy white sauce. It's a combo to die for. I recently shot white sauce pas ta and this idea instantly came to my mind. This turned out just as I thought. Do try this re cipe at home, I know a lot of you guys are waiting for it. Got a lot of dms asking me when th e recipe would be out. So here it is. Have fun with it!\n.\n.\n.\n#recipe #food #foodphotogra phy #spaghetti #spagetti #pasta #pastarecipes #pastalover #pastapasta #sanivotkeer"} foodrush.recipe ######################### {'post1': 'Cheese Pav bhaji is one of the best version of street food we all have ever taste d. We have just tried to serve it in a most convenient yet cheesy way with @gocheesein Cathis recipe is specially for all cheese lovers out there cause #HarTastyCheezMeinGoCheese !!! Ingr edients:\n2 cup Refined Flour\n1/2 cup Water\n1/2 cup Warm Milk\n1 tsp Salt\n1 tsp Yeast\n1/2 tsp Sugar\n1 tsp Oil\n1 cup Pav Bhaji\nGo Pizza Cheese\nButter\n\nMethod:\n\nIn a warm milk a dd sugar and yeast and rest it for 10 minutes. Once the mixture become bubbly add it to refin ed flour. Add salt and water to the flour and combine to make a soft dough. Rest it for 30 mi nutes or till it doubles in size.\n-\nIn a cup of pav bhaji add grated Go Pizza Cheese. Mix i t well.\n-\nPuncture the dough and roll it. Cut the circles from this sheet with the help of cookie cutter.\n—\nSpread Pav bhaji on this and shape it as shown in video.\n—\nArrange these shapes to form flower out of it. Add Go Pizza Cheese between two petals.\n-\nBake it @200 deg ree for 15-20 minutes.\n-\nServe hot with cheesy dip or ketchup!!! #cheese #pavbhaji #cheesy #gocheese #foodie #foodrushrecipe #food #recipe #bakery #bread #streetfood #twist #party #foo dphotography', 'post2': 'Cheese Pav bhaji is one of the best version of street food we all ha ve ever tasted. We have just tried to serve it in a most convenient yet cheesy way with @goch eesein CThis recipe is specially for all cheese lovers out there cause #HarTastyCheezMeinGoC heese !!! Ingredients:\n2 cup Refined Flour\n1/2 cup Water\n1/2 cup Warm Milk\n1 tsp Salt\n1 tsp Yeast\n1/2 tsp Sugar\n1 tsp Oil\n1 cup Pav Bhaji\nGo Pizza Cheese\nButter\n\nMethod:\n\nI n a warm milk add sugar and yeast and rest it for 10 minutes. Once the mixture become bubbly add it to refined flour. Add salt and water to the flour and combine to make a soft dough. Re st it for 30 minutes or till it doubles in size.\n-\nIn a cup of pav bhaji add grated Go Pizz a Cheese. Mix it well.\n-\nPuncture the dough and roll it. Cut the circles from this sheet wi th the help of cookie cutter.\n-\nSpread Pav bhaji on this and shape it as shown in video.\n-\nArrange these shapes to form flower out of it. Add Go Pizza Cheese between two petals.\n-\n Bake it @200 degree for 15-20 minutes.\n-\nServe hot with cheesy dip or ketchup!!! #cheese #p avbhaji #cheesy #gocheese #foodie #foodrushrecipe #food #recipe #bakery #bread #streetfood #t wist #party #foodphotography', 'post3': 'Stuffed Paneer Bread Pakora !!! Sound exciting righ t, its just so tasty that you will love it at its first bite 😄 #paneer #bread #pakora #fried #breadpakoda #masala #recipe #streetfood #streetstyle #india #indian #indianfood #food #foodi e #homemade', 'post4': 'Happy new year to all foodies!! 🅳 🕳 Try this super amazing Hot Choc olate Bombs to make your winter warm and comfortable 😉 These magical chocolate bombs will me It in hot milk just like this 😋#newyear #chocolate #coco #cocoa #bombs #chocolatebomb #hotch ocolate #winter #winterseason #recipe #magic #food #foodie', 'post5': 'Egg chilli !!! Want to plan some easier and fastest recipe on this New Year eve try this simplest yet tastier indo C hinese recipe 😋 #egg #indochinese #chinese #chinesefood #recipes #food #foodie #foodporn #fo odstagram #fusion #chilli #fried #newyear #newyear2021 #newyeareve', 'post6': 'Malai Chicken tikka is mouthwatering juicy grilled chicken !!! Its made using green chilli, garlic, lemon, malai and one special ingredient thats @californiawalnutsindia Walnuts not just makes it tast e better but also makes it healthier 😀 try this juicy soft kebab on skewers that will melt i n your mouth ()\n\nIngredients :\n500 gm Chicken Salt to taste\n1/4 tsp Black Pepper\n1.5 tbs p Ginger Garlic Paste 2 tbsp California Walnuts\n3/4 cup Hung Curd\n1/2 cup Fresh Cream\n1 ts p Green Chillies\n1 tsp Garam Masala\n1 tsp Kasuri Methi\n1 tbsp Fresh Coriander\n1 tbsp Corn Starch\nFinely Chopped California Walnuts\nButter\n\nMethod:\n\nMarinate chicken using salt, black pepper and ginger garlic paste. Rest it for 15 minutes.\n-\nMake fine paste of Californ ia walnuts.\n—\nIn a bowl take hung curd, fresh cream, green chillies, salt, kauri methi, wal nuts paste, fresh coriander and cornstarch. Mix it well.\n-\nAdd marinated chicken to this mi xture and coat all chicken pieces with it.\n—\nPlace small bowl over this mixture. In a small bowl take heated coal add ghee to it and cover it immediately. Let it covered for 2-3 minute s.\n-\nRemove coal bowl from this and add some chopped walnuts mixture and mix it again.\n-\n Thread this chicken into skewer. Grill it on medium low flame for around 5-10 minutes.\n—\nSq ueeze some lemon juice over this grilled chicken and garnish with fresh cream and coriande r.\n-\nServe hot with green chutney !!!\n\n#MakingEverydayHealthy #californiawalnuts #chicken #grill #malaichicken #food #recipe #foodie #homemade', 'post7': 'Whip-up this delectable Open Cheese Toast sandwich recipe loaded with the goodness of Austrian cheese triangles whenever h unger strikes. Austrian cheese triangles are especially soft and creamy and produced from the finest ingredients. You can also use Blue cheese from France for this recipe 😉 🗀 nThis post is funded with aid from European Union.\n\nIngredients :\n\nBaguette Slice\nMelted butte\nAustri an Cheese Triangles\n1 tbsp Oregano mix herbs\n1 tbsp Garlic\n1 tsp Butter\n1 tbsp Balsamic V inegar\n1/2 cup Cherry Tomato\nSalt to taste\nPepper to taste\nPesto Sauce\nBasil Leaves\n\nM ethod:\nSpread some melted butter on a baguette slice. Bake it at 200 degree celcius for 10 m inutes.\n--\nIn a bowl take Austrian cheese triangle add Oregano mix herbs and finely chopped garlic to it. mIx it well.\n--\nIn a flat pan take some butter. Add Balsamic vinegar to it. T oast cherry tomatoes in it. Add salt and pepper to taste.\n--\nTake baked baguette slice. Spr ead Seasoned cheese over it. Add some roasted tomatoes, spread some pesto sauce over it and g arnish with fresh basil leaves.\n--\nServe with your favorite condiments !!\n\n#EnjoyitsFromE urope #EuropeHomeOfCheese #AustrianCheese #cheese #recipe #food #foodie #foodofinstagram #bre ad #opentoast #sandwich', 'post8': 'This Christmas try these yummy melt in mouth chocolate fu dge!!! Make it with just 3 ingredients 😉 #christmas #chocolate #fudge #meltinmouth #festive #foodporn #food #merrychristmas #cocoa #choco #foodie #recipe', 'post9': "There's nothing as satisfying as bread and cheese. This easy instant naan stuffed with sharp and flavourful Blue Cheese from France is going to be your next favourite Indian stuffed bread, we promise! Grate d Emmental cheese will taste equally delicious in this recipe!\n\nThis post is funded with ai d from European Union.\n\n#EnjoyitsFromEurope #EuropeHomeOfCheese #FrenchCheese\n\nIngredient s: 2 cup Refined Flour 1 cup Curd\n1/2 tsp Salt\n1 tsp Baking Powder 1/4 tsp Sugar\n1/4 cup W ater or as required\n1 tsp Butter\n1/2 cup Blue Cheese\n2 tbsp Coriander\nFinely chopped onio ns\nMethod:\nNeed a soft dough using Refined Flour. Curd, Salt, Baking Powder and Sugar. Re st it for 30 minutes.\n—\nCrumble Blue Cheese using Fork. And Coriander and finely Chopped on ion to it.\n-\nMake a small ball out of this dough. Roll this ball a little.\n-\nPlace the Bl ue Cheese Mixture in the middle of the roti. Join the corners and cover the Blue Cheese mixtu re.\n—\nAgain Roll this stuffed Blue Cheese dough gently shaping it into naan. Smear some Cor iander and onion seeds over it.\n-\nSpread some butter over heated pan. Fry this naan from bo th side.\n-\nGrease with Butter and serve this delicious Blue Cheese Naan hot with any of you r favourite gravy!!! #cheese #blue #bluecheese #naanrecipe #naan #indian #indianfood #indianb read #recipe #food #foodie #cheesy #dinner #bread", 'post10': 'A buttery, rich bread interlac ed with DIY Walnut Chocolate spread @californiawalnutsindia this Walnut Chocolate wreath is a s pretty as it is delicious! Could you think of a better gift for your loved ones this Christ mas?\n#MakingEverydayHealthy #CaliforniaWalnuts\n\nIngredients :\n1/2 cup Luke warm Milk\n1 t sp Sugar\n1 tsp Dry Active Yeast\n1/2 cup Melted Butter\n1/2 cup Powdered Sugar\n2 cup Refine d Flour\n1 cup California Walnuts\n3/4 cup Powdered Sugar\n1/2 cup Cocoa Powder\n1/4 cup Chop ped Chocolate\n1 tbsp Oil\n1/2 tsp Vanilla Essence\n\nMethod :\n\nIn a bowl take Luke warm mi lk. Add Sugar and dry active yeast to it. Late it bloom for 10 minutes. After that add melted butter, Powdered sugar and refined flour to yeast mixture. Knead a soft dough out of it. Rest it for 1 hour.\n—\nIn casserole spread 1 cup California Walnuts and Roast it till it becomes aromatic.\n-\nAdd Powdered Sugar, Cocoa Powder, Chopped chocolate and vanilla essence and oil to roasted walnuts and grind it till it starts releasing oil.\n-\nOnce this dry mixture conve rts into smooth fine paste our Walnut Chocolate spread is ready.\n—\nSpread this on a rolled dough and shape it into wreath. Rest it again for 30 minutes.\n—\nBake it 180 degree celsius for 20 minutes.\n—\nYour Walnut Chocolate Wreath is Ready!!! Enjoy your Christmas 😉\n#walnut #wreath #walnutchocolate #chocolate #cocoa #chocolatebread #christmas #festival #holiday #hol idayseason #food #foodie #foodism #recipe #merrychristmas'} foodie_incarnate ######################### {'post1': '130Rs Ganne Ka Juice; (**) (**)\n.\n ₹ Foodhall, DLF Promenade , Vasant Kunj, Delhi\n\n#fo odieincarnate #reelitfeelit #reelkarofeelkaro #reels #reelsinstagram #costlyfood #delhifoodie #delhi #gannekajuice #sugarcanejuice', 'post2': 'The TASTIEST Paneer Tikka Sandwich in Delhi ♥ 🚵 \n\n.\n 📍 @wow_sandwiches\n\n 🔼 YouTube: Foodie Incarnate\n.\n.\n#foodieincarnate #sodelhi #newdelhi #foodtalkindia #desifood #delhigram #indianfood #dosa #delhistreetfood #streetfood #mumbaistreetfood #steetfoodindia #mumbaifood #delhifoodblogger #mumbaifoodblogger #delhifood ie #mumbaifoodlovers #foodmaniacindia #delhi #foodblogger #indianfoodblogger #indianfoodie #d elhifoodbloggers #delhifood #southdelhi #sandwiches #sandwich #foodbloggers #paneertikka #pan eer', 'post3': 'Having lunch at my favourite outlet in Sec-29, Gurgaon- @mybarheadquartersgur gaon\n.\nThis place is one of the biggest outlet in Sec-29 Market, having spacious seating bo th indoors as well as outdoors. Food here is delicious, the prices of drinks are pocket frien dly, the staff here is so humble and welcoming and there is always live music and nimerous de als going on to make your experience even better. If you are visiting Sec-29 market, give thi s place a try.❷❷\n\n▶ YouTube: Foodie Incarnate\n.\n.\n#foodieincarnate #sodelhi #newdelhi #foodtalkindia #desifood #delhigram #indianfood #dosa #delhistreetfood #streetfood #mumbaistr eetfood #steetfoodindia #mumbaifood #delhifoodblogger #mumbaifoodblogger #delhifoodie #mumbai foodlovers #foodmaniacindia #delhi #foodblogger #indianfoodblogger #indianfoodie #delhifoodbl oggers #delhifood #lunch #gurugram #gurgaon #foodbloggers #gurgaonfoodie #gurgaonfood', 'post 4': 'Ye Hot Dog Kuch KHAAS Hai 😍 😢 \n. \nThis dog was cooked using so much butter that it looke d as if it is bathing in butter. Had it at Vijay Hot Dog in Krishna Nagar, Delhi.\n.\n#foodie incarnate #butter #hotdog #streetfood #indianstreetfood #delhistreetfood #eastdelhi #delhofoo agh, Delhi\nTaste: 4/5\n\n≥ YouTube: Foodie Incarnate\n.\n.\n#foodieincarnate #sodelhi #newd elhi #foodtalkindia #desifood #delhigram #indianfood #dosa #delhistreetfood #streetfood #mumb aistreetfood #steetfoodindia #mumbaifood #delhifoodblogger #mumbaifoodblogger #delhifoodie #m umbaifoodlovers #foodmaniacindia #delhi #foodblogger #indianfoodblogger #indianfoodie #delhif oodbloggers #delhifood #shalimarbagh #milkshake #westdelhi #foodbloggers #freakshake #chocola nel, ♥\n.\nSubscribe to my YouTube channel, if you haven't already. Link is in my bio. ≅\n > YouTube: Foodie Incarnate\n.\n.\n#foodieincarnate #sodelhi #newdelhi #foodtalkindia #desifood #delhigram #indianfood #dosa #delhistreetfood #streetfood #mumbaistreetfood #steetfoodindia # mumbaifood #delhifoodblogger #indianbreakfast #southindianfood #mumbaifoodblogger #delhifoodi e #mumbaifoodlovers #foodmaniacindia #delhi #foodblogger #indianfoodblogger #indianfoodie #de lhifoodbloggers #delhifood #shakurpur #spicyfood #westdelhi #foodbloggers", 'post7': 'MOST LO ADED PAPAD EVER \(\text{QP}\)\n.\nMasala Khichiya papad is a super loaded papad that is one of the most popular street food of Mumbai. Roasted fresh on coal, this papad is coated with butter, and g ets toppings of multiple veggies, chana dal, pomegranate, sev and differenr types of chutney s. You will find streetside vendors selling it in in almost all parts of Mumbai. The crunchin ess of this papad combined with the flavirs of the toppings gives it a very delicious taste. Worth trying when you are in Mumbai. ∂\n.\n□ YouTube: Foodie Incarnate\n.\n.\n#foodieincarna te #sodelhi #newdelhi #foodtalkindia #desifood #delhigram #indianfood #papad #delhistreetfood #streetfood #mumbaistreetfood #steetfoodindia #mumbaifood #punefoodblogger #thingstodoinmumba i #things2doinmumbai #mumbaifoodblogger #mumbaifoodie #mumbaifoodlovers #foodmaniacindia #mar atha #maharashtra #maharashtra ig #indianfoodie #delhifoodblogger #delhifood #delhifoodie #sp icyfood #gujarati #maharashtra_igers', 'post8': 'Laxmi Nagar ki FAMOUS JALEBI♥♥\n\n • Stall l ocated at Paliwal Dharamshala Marg, Laxmi Nagar, Delhi\n.\n▶ YouTube: Foodie Incarnate \n.\n.\n#foodieincarnate #sodelhi #newdelhi #foodtalkindia #delhigram #indianfood #delhifoodb logger #foodgasm #foodporn #foodpornshare #foodlover #foodgram #foodiesofinstagram #foodie #i ndianstreetfood #streetfood #delhistreetfood #streetfoodindia #mumbaistreetfood #delhifoodie #delhiwale #indianfoodie #desikhana #indianfoodblogger #gurgaonfood #mumbai #gurugram #delhi #laxminagar #jalebi', 'post9': "Nobody wants to come back home after a tiring day of work and start cooking. And who has the time or energy to wait for food to be delivered? Thanks to @do minos_india #DriveAndPick , you don't have to do either!\n\nJust select the Takeaway option o n the Domino's App, find your preferred store and choose the Drive-n-Pick option, enter your vehicle details, place your order, choose DRIVE-N-PICK NOW and collect your order in 15 minut es. Zero Waiting, Zero Contact and Zero Delivery Charges.\n\nGo home and relax with a #Domino sPizza. Do share your Drive-n-Pick experience in the comments.\n\n#foodieincarnate #dominospi zzaindia #sodelhi #foodtalkindia #delhigram #dominos #pizza #pizza 🍕 #pizzaparty #delhifood # delhifoodie #delhifoodblogger #delhifoodblog #delhifoodbloggers #indianfoodblogger #indianblo ggers #delhidiaries #delhi_igers #pizzalove #pizzalover #somumbai #delhifoodies #gurugram #mu mbaifoodblogger #pizzatime #foodblogger", 'post10': "FINALLY a good Pav Bhaji in Delhi-NCR❤❤ \n\nIf you have eaten pav bhaji in Mumbai, you start hating the taste of pav bhaji that is fo und in Delhi-ncr. But after trying pav bhaji at countless places in Delhi & Gurgaon, i finall y found a place that serves pav bhaji where the bhaji somewhat resembles the taste of Mumba i's bhaji!\nThough the Mumbai style ladi pavs were missing but still it was THE TASTIEST pav bhai that i have ever eaten in Gurgaon. ♥\n PBombay Meri Jaan, Sec-31, Gurugram\n.\n \ YouTub e: Foodie Incarnate\n.\n.\n#foodieincarnate #sodelhi #newdelhi #foodtalkindia #delhigram #ind ianfood #delhifoodblogger #foodgasm #foodporn #foodpornshare #foodlover #foodgram #foodiesofi nstagram #foodie #indianstreetfood #streetfood #delhistreetfood #streetfoodindia #mumbaistree tfood #delhifoodie #delhi #indianfoodie #bhaji #indianfoodblogger #gurgaonfood #gurgaongoodie #quruqram #qurqaon #vadapav #pavbhaji"} delhifoodwalks ######################## B. Prepare a list of all words used in all the scraped posts and calculate the frequency of each word. In [73]: total words freq={} #dictionary to store words as key and values a count for i in top_5_post_content: val=top_5_post_content[i] for j in range(10): post_number='post'+str(j+1) new_val=val[post_number] final_val=new_val.split() #spliting each and every post for k in final_val: if k[0]=='#': #only fetching hastages ans=k[1:] if ans in total_words_freq: total_words_freq[ans]+=1 total_words_freq[ans]=1 print(total_words_freq) {'DDD': 2, 'discoveryplus': 4, 'DeliciousMissBrown': 2, 'WorstCooks': 1, 'TheKitchen': 1, 'di scoveryplus\u2060': 2, 'KidsBakingChampionship': 1, 'GirlMeetsFarm': 1, 'discoveryplus!': 1, '1': 1, 'reeitfeelit': 1, 'reelkarofeelkaro': 2, 'reelsinstagram': 2, 'foodstagram': 5, 'tort illa': 1, 'wraphack': 1, 'tortillawrap': 1, 'food': 17, 'hack': 1, 'hackvideo': 1, 'recipeoft heday': 4, 'recipes': 3, 'hotdog': 3, 'hotdoglovers': 2, 'streetfood': 16, 'foodporn': 11, 'y ummy': 3, 'yummlicious': 2, 'cheesyfood': 2, 'cheesy': 5, 'frieslover': 2, 'sanjyotkeer': 9, 'sizzlers': 2, 'vegetarian': 2, 'vegetarianrecipes': 2, 'vegsizzler': 2, 'easyrecipe': 2, 'al ootikki': 2, 'aloorecipes': 2, 'mumbai_ig': 2, 'recipe': 14, 'foodie': 16, 'indiancuisine': 1, 'indianfood': 10, 'streetfoodlover': 1, 'kofta': 1, 'koftacurry': 1, 'paneerrecipes': 2, 'paneer': 4, 'paneerlovers': 2, 'foodiesofinstagram': 4, 'dhabastyle': 2, 'dhabafood': 2, 'fo odphotography': 4, 'spaghetti': 2, 'spagetti': 2, 'pasta': 2, 'pastarecipes': 2, 'pastalove r': 2, 'pastapasta': 2, 'HarTastyCheezMeinGoCheese': 2, 'cheese': 4, 'pavbhaji': 3, 'gochees e': 2, 'foodrushrecipe': 2, 'bakery': 2, 'bread': 5, 'twist': 2, 'party': 2, 'pakora': 1, 'fr ied': 2, 'breadpakoda': 1, 'masala': 1, 'streetstyle': 1, 'india': 1, 'indian': 2, 'homemad e': 2, 'chocolate': 3, 'coco': 1, 'cocoa': 3, 'bombs': 1, 'chocolatebomb': 1, 'hotchocolate': 1, 'winter': 1, 'winterseason': 1, 'magic': 1, 'egg': 1, 'indochinese': 1, 'chinese': 1, 'chi nesefood': 1, 'fusion': 1, 'chilli': 1, 'newyear': 1, 'newyear2021': 1, 'newyeareve': 1, 'Mak ingEverydayHealthy': 2, 'californiawalnuts': 1, 'chicken': 1, 'grill': 1, 'malaichicken': 1, 'EnjoyitsFromEurope': 2, 'EuropeHomeOfCheese': 2, 'AustrianCheese': 1, 'foodofinstagram': 1, 'opentoast': 1, 'sandwich': 2, 'christmas': 2, 'fudge': 1, 'meltinmouth': 1, 'festive': 1, 'm errychristmas': 2, 'choco': 1, 'FrenchCheese': 1, 'blue': 1, 'bluecheese': 1, 'naanrecipe': 1, 'naan': 1, 'indianbread': 1, 'dinner': 1, 'CaliforniaWalnuts': 1, 'walnut': 1, 'wreath': 1, 'walnutchocolate': 1, 'chocolatebread': 1, 'festival': 1, 'holiday': 1, 'holidayseason': 1, 'foodism': 1, 'foodieincarnate': 10, 'reelitfeelit': 1, 'reels': 1, 'costlyfood': 1, 'delh ifoodie': 9, 'delhi': 7, 'gannekajuice': 1, 'sugarcanejuice': 1, 'sodelhi': 8, 'newdelhi': 7, 'foodtalkindia': 8, 'desifood': 5, 'delhigram': 8, 'dosa': 4, 'delhistreetfood': 8, 'mumbaist reetfood': 7, 'steetfoodindia': 5, 'mumbaifood': 5, 'delhifoodblogger': 8, 'mumbaifoodblogge r': 6, 'mumbaifoodlovers': 5, 'foodmaniacindia': 5, 'foodblogger': 5, 'indianfoodblogger': 7, 'indianfoodie': 7, 'delhifoodbloggers': 5, 'delhifood': 7, 'southdelhi': 1, 'sandwiches': 1, 'foodbloggers': 5, 'paneertikka': 1, 'lunch': 1, 'gurugram': 4, 'gurgaon': 2, 'gurgaonfoodi e': 1, 'gurgaonfood': 3, 'butter': 1, 'indianstreetfood': 3, 'eastdelhi': 1, 'delhofoodie': 'shalimarbagh': 1, 'milkshake': 1, 'westdelhi': 2, 'freakshake': 1, 'chocolateshake': 1, 'indianbreakfast': 1, 'southindianfood': 1, 'shakurpur': 1, 'spicyfood': 2, 'papad': 1, 'pune foodblogger': 1, 'thingstodoinmumbai': 1, 'things2doinmumbai': 1, 'mumbaifoodie': 1, 'marath a': 1, 'maharashtra': 1, 'maharashtra_ig': 1, 'gujarati': 1, 'maharashtra_igers': 1, 'foodgas m': 2, 'foodpornshare': 2, 'foodlover': 2, 'foodgram': 2, 'streetfoodindia': 2, 'delhiwale': 1, 'desikhana': 1, 'mumbai': 1, 'laxminagar': 1, 'jalebi': 1, 'DriveAndPick': 1, 'DominosPizz a.': 1, 'dominospizzaindia': 1, 'dominos': 1, 'pizza': 1, 'pizza🍕': 1, 'pizzaparty': 1, 'del hifoodblog': 1, 'indianbloggers': 1, 'delhidiaries': 1, 'delhi_igers': 1, 'pizzalove': 1, 'pi zzalover': 1, 'somumbai': 1, 'delhifoodies': 1, 'pizzatime': 1, 'bhaji': 1, 'gurgaongoodie': 1, 'vadapav': 1, 'DFWinGoa': 2, 'GoaFoodTour': 2, 'GoaFood': 2, 'poder': 2, 'breads': 2, 'Goa C. Create a csv file with two columns: the word and its frequency In [74]: freq_of_words=[] #creating an empty list for i in total_words_freq: freq_of_words.append([i,total_words_freq[i]]) df=pd.DataFrame(freq_of_words,columns=['words','Frequency']) df.to_csv('freq_of_words.csv',index=False) #creating the csv file. print(df) words Frequency 0 DDD discoveryplus 1 4 DeliciousMissBrown 3 WorstCooks 4 TheKitchen 267 Festival 268 Punjab 1 269 makkikiroti 1 270 sarsonkasaag 1 271 rewari [272 rows x 2 columns] D. Now, find the hashtags that were most popular among these bloggers In [75]: top_5_most_popular_hastags=dict(Counter(total_words_freq).most_common(5)) #extracting top 5 hastags which are most popular among these bloggers top_5_most_popular_hastags Out[75]: {'food': 17, 'streetfood': 16, 'foodie': 16, 'recipe': 14, 'foodporn': 11} E. Plot a Pie Chart of the top 5 hashtags obtained and the number of times they were used by these bloggers in the scraped In [76]: hastags=[] counts=[] for i in top_5_most_popular_hastags: hastags.append(i) counts.append(top_5_most_popular_hastags[i]) plt.pie(counts, labels=hastags, autopct="%.2f%%") plt.axis('equal') plt.show() streetfood food 21.62% 22.97% 21.62% 14.86% foodie foodporn 18.92% 1. You need to also calculate average followers: likes ratio for the obtained handles. Followers: Likes ratio is calculated as follows: A. Find out the likes of the top 10 posts of the 5 handles obtained earlier. In [101]: top_5_post_like={} #empty dictionar y for top five post for t in od: post_likes={} count=0 data=driver.find element by xpath('//input[contains(@class, "XTCLo")]') #input box data.send_keys(t) #send handle driver.implicitly_wait(10) data=driver.find_element_by_xpath('//span[contains(@class, "Ap253")]') #first search data.click() driver.implicitly_wait(10) for i in range(12): driver.execute_script('window.scrollBy(0,2000);') #scroll by 2000 data=driver.find_elements_by_xpath('//div[contains(@class,"_9AhH0")]') #fetch the elemen ts for j in range(12): driver.execute_script('window.scrollBy(0, -2000);') #scroll by 2000 time.sleep(1) driver.execute_script('window.scrollBy(0,500);') #make in proper p lace f post driver.execute_script('window.scrollBy(0,500);') final=data driver.implicitly_wait(10) for p in range(len(final)): if count>9: break try: data=driver.find_elements_by_xpath('//div[contains(@class,"_9AhH0")]') #fetch p ost driver.execute_script('window.scrollBy(0,80);') final=len(data) driver.implicitly_wait(10) data[p].click() driver.implicitly_wait(10) data=driver.find_element_by_xpath('//button[contains(@class,"sqdOP ")]//span') #find likes on post val=data.text **if** val=='': new=driver.find_elements_by_xpath('//button[contains(@class, "wp06b")]/div')[-1] #extractint the close button new.click() continue **if** val[0]=='V': new=driver.find elements by xpath('//button[contains(@class, "wp06b")]/div')[-1] #extracting the close button new.click() continue val=val.replace(',',','') ans=val count=count+1 number='post'+str(count) post_likes[number]=ans new=driver.find_elements_by_xpath('//button[contains(@class, "wp06b")]/div')[-1] #extracting the close button new.click() except NoSuchElementException: new=driver.find_elements_by_xpath('//button[contains(@class, "wp06b")]/div')[-1] {'foodnetwork': {'post1': 'Hide replies', 'post2': '15082', 'post3': 'Hide replies', 'post4': 'Hide replies', 'post5': '8225', 'post6': '13871', 'post7': 'Hide replies', 'post8': '14073', 'post9': '7633', 'post10': '17692'}, 'yourfoodlab': {'post1': '35973', 'post2': '33021', 'pos t3': '38902', 'post4': '25885', 'post5': '31801', 'post6': '26243', 'post7': '35877', 'post 8': '21773', 'post9': '8859', 'post10': '33763'}, 'foodrush.recipe': {'post1': '9704', 'post 2': '30621', 'post3': '40625', 'post4': '16209', 'post5': '5310', 'post6': '7402', 'post7': '15957', 'post8': '19574'}, 'foodie_incarnate': {'post1': '1000', 'post2': '2317', 'post3': '3391', 'post4': '3895', 'post5': '3420', 'post6': '9961', 'post7': '2618', 'post8': '1717', 'post9': '9174', 'post10': '3708'}, 'delhifoodwalks': {'post1': '932', 'post2': '982', 'post B. Calculate the average likes for a handle. In [107]: average_handles={} #empty dic to store average value as key and handlers name as value for i in top_5_post_like: C=0tsum=0 d=top_5_post_like[i]#extracting each and every post likes d = [d[w].replace('Hide replies', '0') for w in d]#replacing the hidden likes counts wit h 0 for j in d: c=c+1tsum+=int(j)#converting the values from string to int and summing up them. average=tsum/c #calculating the average average_handles[i]=average for key in average_handles.keys(): print(key,end=" foodnetwork 7657.60 yourfoodlab 29209.70 foodrush.recipe 18175.25 foodie_incarnate 4120.10 delhifoodwalks 996.60 In []: C. Divide the average likes obtained from the number of followers of the handle to get the average followers: like ratio of each In [109]: top_5_average_like=[] #creating empty list to append the average value dic={}#creating empty dictionary to have handler name as key and number of followers as valu top_5_followers=[] average_followers_likes=[] top_5=[] **for** i **in** average_handles: top_5_average_like.append(average_handles[i])#appending the average value data=driver.find_element_by_xpath('//input[contains(@class,"XTCLo")]') #input box data.send_keys(i) #send handle driver.implicitly_wait(10) data=driver.find_element_by_xpath('//span[contains(@class, "Ap253")]') data.click() #clicking to visit the profile driver.implicitly_wait(10) data=BeautifulSoup(driver.page_source, 'html.parser') #reading and parsing data using bea utifulsoap new_data=data.a.span #time.sleep(2) final_data=new_data['title'] #extracting the number of followers final_data=int(final_data.replace(',','')) final_data dic[i]=final_data top_5.append(i)#appending the handlers name for i in dic: top_5_followers.append(dic[i]) for i in range(len(top_5_followers)): val=top_5_average_like[i]/top_5_followers[i]#clacuting the average average_followers_likes.append(val) foodnetwork 0.0006972099039205857 yourfoodlab 0.0026594875849547026 foodrush.recipe 0.0016548219162965713 foodie_incarnate 0.0003751272624769125 delhifoodwalks 0.0006444812333479915 D.Create a bar graph to depict the above obtained information. import matplotlib.pyplot as plt In [110]: plt.bar(top_5, average_followers_likes) plt.xticks(rotation=90) plt.xlabel('Handles') plt.ylabel('Like vs Followers ratio') plt.title('Handle vs Like Followers Ratio') plt.show() Handle vs Like Followers Ratio 0.0025 0.0020 0.0015

0.0010

0.0005

0.0000

In [29]: #importing all the necessary packages
from selenium import webdriver

from bs4 import BeautifulSoup

it wait

v Class.link text

ntReferenceException

In [30]: # Log in to the instagram

import time

ute

from selenium.webdriver.support.ui import WebDriverWait

from selenium.common.exceptions import TimeoutException

from selenium.webdriver.common.bv import Bv

from selenium.webdriver.support.ui import Select

from selenium.webdriver.support import expected_conditions as EC #use in explicitly wait

from selenium.common.exceptions import StaleElementReferenceException #to handle StaleEleme

from selenium.common.exceptions import NoSuchElementException #to handle NoSuchElementExcept

from selenium.webdriver.common.keys import Keys #For navigating the pop up window

driver=webdriver.Chrome(executable_path='C:/Users/singh/chromedriver') #path of

#importing webdriver

#To use implcit and explic

#to select the attribute b

#work with attrib