In [1]:

```
import time
        import os
        import json
        import sys
        import csv
        import pandas as pd
        from selenium import webdriver
        from selenium.webdriver.chrome.service import Service
        from selenium.webdriver.common.by import By
        from selenium.webdriver.chrome.options import Options
In [2]:
        zipsTop500 = [
            94123, 19104, 77494,90011, 75034,60629,11211,
            77449,75070,79936,11368,77084,11385,90650,8701,91331,11208,78660,10467,9
            92335,37013,11236,92336,94565,11373,11226,77479,90250,90805,90280,60618,
            29483,77573,11207,92683,11220,77429,91710,10456,11214,11234,10314,92154,
            11206,11230,75217,92376,60632,93307,92592,92704,10458,93722,11746,33027,
            60647,11221,94112,93033,93727,95076,78613,92345,91744,79938,92126,91709,
            78666,99301,60804,11355,27610,91335,95823,78542,37042,30024,11223,75035,
            28269, 10453, 60625, 76244, 10468, 47906, 78577, 94533, 78641, 94544, 77083, 75211,
            76063,91706,78245,90706,96706,92105,11204,77450,33311,33024,94080,84015
            30349,93550,60634,93257,10462,95035,75228,89108,37211,93274,94587,63376,
            33012,92805,33411,94536,10466,90255,10452,10002,93306,80013,19120,97701,
            75002,84095,85364,27587,11218,85032,33025,22191,30040,94110,34953,11375,
            93065,97007,19124,80219,30041,78046,30127,60505,97229,92563,60085,91766,
            60641,30281,98012,95123,11215,32828,92114,7055,85204,85225,87114,60640,2
            85301,77036,20002,30022,95687,76179,89031,78596,93230,60620,77845,90631,
            11209,37075,75243,83646,7087,10472,78045,23462,33015,92407,30135,90026,1
            92703,89115,89121,94541,99654,90022,30331,95758,78251,32218,85308,20019,
            23322,94015,92562,7002,17603,77072,60628,92201,38401,29681,11201,10027,1
            84404, 14850, 29072, 33463, 7093, 46307, 32822, 28078, 2301, 30062, 20147, 30188, 91
            60651,78664,94806,20878,95020,44256,43026,85326,40475,92346,78745, 60657
            91977,92404,95127,44035,91770,11372,85008,89123,78574,78250,33313,19143,
            75043,42101,92707,11434,90660,32210,92627,92504,11210,77373,79928,95608,
            75150,60073,74012,80634,78249,93905,19134,75040,95014,92647,91702,78228,
            34711,95111,78504,7047,37167,48180,78254,10312,90004,91732,53215,32818,3
            2148,77521,75227,34744, 29445,95051,93312,92057,28314,95828,33458,72401,
            956,60609,2155,37129,90042,33414,32808,83709,29485,92570,33125,78501,100
            77375,72712,85122,6010,37128,78753,76137,95112,33064,96818,44060,43230,9
            22192,21122,21117,60016
        zipsShortList = zipsTop500[0:8]
```

http://shopping.google.com/

```
In [3]:
        company names = [
             'ulla+johnson',
             'mark+cross',
             'le+specs',
             'jl+audio',
             'obey+clothing',
```

```
'roc+skin+care',
            'hurley'
        ulla = ['ulla+johnson']
        url base = 'https://www.google.com/search?g=*&tbm=shop'
In [4]: chrome_options = Options()
        chrome options.add argument("--headless") # Ensure GUI is off
        chrome options.add argument("--no-sandbox")
        browser = webdriver.Chrome(options=chrome options)
In [5]: def get storeInfo(store):
            data = \{\}
            data['name'] = store.find element(By.CLASS NAME, 'MxVeme').text
            data['google maps link'] = store.find element(By.CLASS NAME, 'k7eIUb').f
            data['address'] = store.find element(By.CLASS NAME, 'lSS0Af').text
            return data
In [6]: resultsList = []
        for zipcode in zipsShortList:
            for company in ulla:
                current_combo = url_base.replace("*", company+'+'+str(zipcode))
                print(current combo)
                browser.get(current combo) #Get the link
                morePlaces = True
                results = browser.find_element(By.XPATH, '//div[@jscontroller="lcX38
                stores = results.find_elements(By.CLASS_NAME, 'FFnM0')
                print("LEN:", len(stores))
                while morePlaces == True:
                    #for length in range(len(stores)-3): #How many times to click th
                    try:
                        button = results.find element(By.CLASS NAME, 't6JUTe')
                        button.click()
                        time.sleep(1)
                    except:
                        print("no more 'more places' button")
                        morePlaces = False
                for store in stores:
                     resultsList.append(get_storeInfo(store))
                #time.sleep(1)
                browser.quit()
                browser = webdriver.Chrome(options=chrome options)
```

```
https://www.google.com/search?q=ulla+johnson+94123&tbm=shop
        LEN: 18
        no more 'more places' button
        https://www.google.com/search?q=ulla+johnson+19104&tbm=shop
        LEN: 13
        no more 'more places' button
        https://www.google.com/search?q=ulla+johnson+77494&tbm=shop
        LEN: 23
        no more 'more places' button
        https://www.google.com/search?q=ulla+johnson+90011&tbm=shop
        LEN: 22
        no more 'more places' button
        https://www.google.com/search?q=ulla+johnson+75034&tbm=shop
        no more 'more places' button
        https://www.google.com/search?q=ulla+johnson+60629&tbm=shop
        no more 'more places' button
        https://www.google.com/search?q=ulla+johnson+11211&tbm=shop
        LEN: 16
        no more 'more places' button
        https://www.google.com/search?q=ulla+johnson+77449&tbm=shop
        LEN: 22
        no more 'more places' button
In [8]: df = pd.DataFrame(resultsList)
        df
```

Out[8]:

	name	google_maps_link	address
0	Neiman Marcus	https://maps.google.com/maps? daddr=150+Stockto	150 Stockton Street, San Francisco
1	dress	https://maps.google.com/maps? daddr=2271+Chestn	2271 Chestnut Street, San Francisco
2	Nordstrom	https://maps.google.com/maps? daddr=1200+Broadw	1200 Broadway Plaza, Walnut Creek
3	Neiman Marcus	https://maps.google.com/maps? daddr=400+Stanfor	400 Stanford Shopping Center, Palo Alto
4	Nordstrom	https://maps.google.com/maps? daddr=550+Stanfor	550 Stanford Shopping Center, Palo Alto
•••			
156	Ann Taylor	https://maps.google.com/maps? daddr=12850+Memor	12850 Memorial Drive, Houston
157	LOFT	https://maps.google.com/maps? daddr=2400+Univer	2400 University Blvd, Houston
158	LOFT	https://maps.google.com/maps? daddr=1201+Lake+W	1201 Lake Woodland Drive, The Woodlands
159	LOFT	https://maps.google.com/maps? daddr=303+Memoria	303 Memorial City, Houston-
160	sunandski.com	https://maps.google.com/maps? daddr=5000+Katy+M	5000 Katy Mills Cir, Ste 505, Katy

161 rows × 3 columns