In [0]:
```python
!pip install twython
from bs4 import BeautifulSoup
import requests
import pandas as pd
```

Requirement already satisfied: twython in /usr/local/lib/python3.6/dist-packages (3.8.2)
Requirement already satisfied: requests>=2.1.0 in /usr/local/lib/python3.6/dist-packages (from twython) (2.21.0)
Requirement already satisfied: requests-oauthlib>=0.4.0 in /usr/local/lib/python3.6/dist-packages (from twython) (1.3.0)
Requirement already satisfied: urllib3<1.25,>=1.21.1 in /usr/local/lib/python3.6/dist-packages (from requests>=2.1.0->twython) (1.24.3)
Requirement already satisfied: idna<2.9,>=2.5 in /usr/local/lib/python3.6/dist-packages (from requests>=2.1.0->twython) (2.8)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.6/dist-packages (from requests>=2.1.0->twython) (2020.4.5.1)
Requirement already satisfied: chardet<3.1.0,>=3.0.2 in /usr/local/lib/python3.6/dist-packages (from requests>=2.1.0->twython) (3.0.4)
Requirement already satisfied: oauthlib>=3.0.0 in /usr/local/lib/python3.6/dist-packages (from requests-oauthlib>=0.4.0->twython) (3.1.0)

In [0]:
```python
def getSoup(URL):
    r=requests.get(URL)
    soup=BeautifulSoup(r.content, "html.parser")
    return(soup)
```

In [0]:
```python
from twython import Twython
import json
```

```python
In [0]: def getTaggedTweets(hashtag):
    """tutorial for accessing twitter api using twython
    link - https://stackabuse.com/accessing-the-twitter-api-with-python/"""

    #api details
    # Enter your keys/secrets as strings in the following fields
    credentials = {}
    credentials['CONSUMER_KEY'] = 'GJrKx4QiGP4VBCvWzwzL9Jc3s'
    credentials['CONSUMER_SECRET'] = 'SRrnCvSvJ75wilwE62wrj22hQGA8rJrNtQJEFNemOR
gSLQNTqY'
    credentials['ACCESS_TOKEN'] = '1246732645284728832-I6ReqO8tMqdASeGMK62op2Ygq
7RXXj'
    credentials['ACCESS_SECRET'] = 'mGeWISnxFe04t0rqtgql7QloBPLUgnjeazlodmD1VHNe
J'


    # Instantiate an object
    python_tweets = Twython(credentials['CONSUMER_KEY'], credentials['CONSUMER_S
ECRET'])
    # Create our query
    query = {'q': hashtag,
            'result_type': 'mixed',
            'count': 100,
            'lang': 'en'
            }

    # Search tweets
    dict_ = {'user': [], 'date': [], 'text': [], 'favorite_count': [], 'hashtag
s' : [], 'user_loc' :[]}
    for status in python_tweets.search(**query)['statuses']:

        dict_['user'].append(status['user']['screen_name'])
        dict_['date'].append(status['created_at'])
        dict_['text'].append(status['text'])
        dict_['favorite_count'].append(status['favorite_count'])
        dict_['hashtags'].append([hashtag['text'] for hashtag in status['entitie
s']['hashtags']])
        dict_['user_loc'].append(status['user']['location'])
        # Structure data in a pandas DataFrame for easier manipulation
    df = pd.DataFrame(dict_)
    return(df)
```

Top 5 Banks Web Scraping

```python
In [0]: wiki_url= "https://en.wikipedia.org/wiki/List_of_largest_banks_in_the_United_S
tates" #url for getting list
```

```python
In [0]:  #for getting wiki stuff
         wiki_soup = getSoup(wiki_url)
         table= wiki_soup.find('table')  #print(table)
         rows = table.find_all('tr')
         columns = [v.text.replace('\n','') for v in rows[0].find_all('th')]
           #for row in table.findAll('tr'):
             #for column in row.findAll('td'):
           #print(columns)
         banks_df = pd.DataFrame(columns=columns)
         for i in range(1,6):
           tds = rows[i].findAll('td')

           if len(tds) == 4:
             values = [tds[0].text.replace('\n',''), tds[1].text.replace('\n',''),'',td
         s[2].text.replace('\n',''),tds[3].text.replace('\n','')]
           else:
             values = [td.text.replace('\n','') for td in tds]

               #print(values)
           banks_df = banks_df.append(pd.Series(values, index=columns),ignore_index=Tru
         e)

         banks_df.head()
         banks_df.to_csv(r'wiki_list.csv',index=False, header=True)


         #C:\Users\Rohan\Desktop\NEU\Term 2\DMDD\Final project\wiki list\
```

Bank of America Web Scraping

```python
In [0]:  bofa_url = "https://careers.bankofamerica.com/en-us/job-search?ref=search&sear
         ch=jobsByCityCountry&city=Azusa&state=California&country=United+States&searchs
         tring=USA&rows=183"
```

```python
In [0]:  bofa_soup = getSoup(bofa_url)
         #print(soup)
         job = bofa_soup.find('div', attrs={'aem-wrap--job-search-results-listing secti
         on'})
         #print(job)
         job_name = []
         for row in job.findAll('a'):
           job_name.append(row.text)
```

```python
In [0]:  locations = []
         dates = []
         for location in bofa_soup.findAll('div', attrs={'class':'job-search-tile__deta
         il'}):
           dates.append((location.text.split("\n")[1]).split()[1])
           locations.append(location.text.split("\n")[2])
```

In [0]: `print(dates)`

```
['04/13/2020', '04/16/2020', '04/20/2020', '04/13/2020', '04/21/2020', '04/0
8/2020', '04/10/2020', '04/10/2020', '04/20/2020', '04/13/2020', '04/08/202
0', '04/24/2020', '04/23/2020', '04/23/2020', '04/07/2020', '03/18/2020', '0
3/02/2020', '04/06/2020', '04/06/2020', '04/12/2020', '04/10/2020', '02/06/20
20', '04/01/2020', '03/24/2020', '01/06/2020', '04/10/2020', '04/21/2020', '0
4/16/2020', '04/15/2020', '04/10/2020', '04/10/2020', '03/25/2020', '04/21/20
20', '04/14/2020', '04/21/2020', '04/15/2020', '04/14/2020', '04/21/2020', '0
4/10/2020', '04/10/2020', '03/26/2020', '03/26/2020', '04/10/2020', '03/18/20
20', '04/17/2020', '04/23/2020', '04/22/2020', '04/21/2020', '04/21/2020', '0
4/21/2020', '04/16/2020', '04/16/2020', '04/15/2020', '04/14/2020', '04/13/20
20', '04/13/2020', '04/09/2020', '04/09/2020', '04/09/2020', '04/09/2020', '0
4/09/2020', '04/08/2020', '04/08/2020', '04/08/2020', '04/08/2020', '04/08/20
20', '04/08/2020', '04/08/2020', '04/07/2020', '03/26/2020', '03/23/2020', '0
3/16/2020', '03/13/2020', '02/28/2020', '02/25/2020', '02/06/2020', '02/06/20
20', '01/16/2020', '01/14/2020', '01/06/2020', '12/05/2019', '03/17/2020', '0
4/20/2020', '04/10/2020', '04/10/2020', '03/10/2020', '03/04/2020', '02/10/20
20', '04/10/2020', '04/08/2020', '04/20/2020', '04/20/2020', '04/20/2020', '0
3/24/2020', '02/19/2020', '03/11/2020', '03/16/2020', '04/22/2020', '04/14/20
20', '04/10/2020', '04/10/2020', '03/13/2020', '03/02/2020', '02/12/2020', '0
4/13/2020', '04/10/2020', '04/10/2020', '03/17/2020', '02/14/2020', '04/14/20
20', '02/21/2020', '04/14/2020', '03/18/2020', '01/30/2020', '04/10/2020', '0
3/11/2020', '03/26/2020', '04/21/2020', '04/17/2020', '04/08/2020', '04/08/20
20', '04/22/2020', '02/24/2020', '02/24/2020', '04/21/2020', '03/09/2020', '0
3/06/2020', '04/10/2020', '04/06/2020', '04/03/2020', '04/22/2020', '04/20/20
20', '04/15/2020', '04/03/2020', '02/25/2020', '11/19/2019', '04/21/2020', '0
4/21/2020', '02/19/2020', '04/06/2020', '04/21/2020', '04/08/2020', '02/12/20
20', '04/13/2020', '04/08/2020', '04/13/2020', '04/20/2020', '04/10/2020', '0
4/21/2020', '04/10/2020', '04/02/2020', '03/31/2020', '02/21/2020', '02/06/20
20', '03/06/2020', '04/13/2020', '02/27/2020', '04/06/2020', '03/16/2020', '0
4/20/2020', '03/02/2020', '04/09/2020', '03/17/2020', '04/14/2020', '04/21/20
20', '04/16/2020', '04/13/2020', '04/07/2020', '03/16/2020', '03/13/2020', '0
3/04/2020', '04/22/2020', '03/04/2020', '02/28/2020', '04/23/2020', '01/06/20
20']
```

In [0]: `print(locations)`

['Azusa, California', 'Multiple Locations', 'Multiple Locations', 'Multiple L
ocations', 'Multiple Locations', 'Rosemead, California', 'Whittier, Californi
a', 'Whittier, California', 'Chino Hills, California', 'Multiple Locations',
'Monterey Park, California', 'Brea, California', 'Multiple Locations', 'Multi
ple Locations', 'Brea, California', 'Brea, California', 'Multiple Locations',
'Upland, California', 'Upland, California', 'Multiple Locations', 'Santa Fe S
prings, California', 'La Canada Flintridge, California', 'Ontario, Californi
a', 'Ontario, California', 'All U.S. locations considered', 'Fullerton, Calif
ornia', 'Norwalk, California', 'Anaheim, California', 'Anaheim, California',
'Anaheim, California', 'Anaheim, California', 'Anaheim, California', 'Hunting
ton Park, California', 'Huntington Park, California', 'Cerritos, California',
'Cerritos, California', 'Cerritos, California', 'Buena Park, California', 'Be
llflower, California', 'Bellflower, California', 'Bellflower, California', 'B
ellflower, California', 'La Palma, California', 'Glendale, California', 'Lynw
ood, California', 'Multiple Locations', 'Los Angeles, California', 'Los Angel
es, California', 'Los Angeles, California', 'Multiple Locations', 'Los Angele
s, California', 'Los Angeles, California', 'Los Angeles, California', 'Los An
geles, California', 'Multiple Locations', 'Multiple Locations', 'Los Angeles,
California', 'Los Angeles, California', 'Los Angeles, California', 'Los Angel
es, California', 'Multiple Locations', 'Los Angeles, California', 'Los Angele
s, California', 'Los Angeles, California', 'Los Angeles, California', 'Los An
geles, California', 'Los Angeles, California', 'Los Angeles, California', 'Mu
ltiple Locations', 'Los Angeles, California', 'Multiple Locations', 'Los Ange
les, California', 'Los Angeles, California', 'Los Angeles, California', 'Los
Angeles, California', 'Los Angeles, California', 'Multiple Locations', 'Los A
ngeles, California', 'Multiple Locations', 'All U.S. locations considered',
'Los Angeles, California', 'Palmdale, California', 'Garden Grove, Californi
a', 'Garden Grove, California', 'Garden Grove, California', 'Garden Grove, Ca
lifornia', 'Garden Grove, California', 'North Hollywood, California', 'West H
ollywood, California', 'West Hollywood, California', 'Santa Ana, California',
'Santa Ana, California', 'Santa Ana, California', 'Santa Ana, California', 'S
anta Ana, California', 'Studio City, California', 'Gardena, California', 'Irv
ine, California', 'Irvine, California', 'Irvine, California', 'Irvine, Califo
rnia', 'Irvine, California', 'Irvine, California', 'Irvine, California', 'Lon
g Beach, California', 'Long Beach, California', 'Long Beach, California', 'Lo
ng Beach, California', 'Long Beach, California', 'Inglewood, California', 'In
glewood, California', 'Tustin, California', 'Culver City, California', 'Culve
r City, California', 'Hawthorne, California', 'Seal Beach, California', 'Sylm
ar, California', 'Torrance, California', 'Torrance, California', 'Torrance, C
alifornia', 'West Los Angeles, California', 'Costa Mesa, California', 'El Seg
undo, California', 'El Segundo, California', 'Harbor City, California', 'Harb
or City, California', 'Harbor City, California', 'Riverside, California', 'Ri
verside, California', 'Riverside, California', 'Beverly Hills, California',
'Pasadena, California', 'Downey, California', 'San Fernando, California', 'Do
wney, California', 'Multiple Locations', 'Manhattan Beach, California', 'San
Pedro, California', 'Marina Del Rey, California', 'Venice, California', 'Sant
a Monica, California', 'Santa Monica, California', 'Santa Monica, Californi
a', 'Redondo Beach, California', 'Redondo Beach, California', 'Encino, Califo
rnia', 'Rolling Hills Estates, California', 'Rolling Hills Estates, Californi
a', 'Newport Beach, California', 'Newport Beach, California', 'Newport Beach,
California', 'Huntington Beach, California', 'Newport Beach, California', 'Mu
ltiple Locations', 'Lake Forest, California', 'Northridge, California', 'Coro
na Del Mar, California', 'Woodland Hills, California', 'Woodland Hills, Calif
ornia', 'Santa Clarita, California', 'Santa Clarita, California', 'Aliso Viej
o, California', 'Chatsworth, California', 'Perris, California', 'Moreno Valle
y, California', 'Lake Elsinore, California', 'San Juan Capistrano, Californi
a', 'All U.S. locations considered', 'All U.S. locations considered', 'All U.

```
S. locations considered', 'All U.S. locations considered', 'All U.S. location
s considered', 'All U.S. locations considered', 'All U.S. locations considere
d', 'All U.S. locations considered', 'All U.S. locations considered']
```

```
In [0]: print(job_name)
```

['Merchant Services Consultant – Azusa/Baldwin Park/Glendora Region', 'Merchant Services Consultant - East LA', 'Merchant Services Consultant', 'Merchant Services Consultant – Arcadia/Pasadena/Monrovia Region', 'Merchant Services Consultant – San Gabriel Valley, CA', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Merchant Services Consultant –Los Angeles/Montebello Region', 'Relationship Banker - Monterey Park Financial Center - Monterey Park, CA (Mandarin Language Fluency Required)', 'Inside Sales Representative', 'Merrill Lynch Financial Advisor Development Program', 'Quantitative Operations Assoc', 'Client Service Representative II', 'Treasury Sales Manager I', 'Treasury Account Manager I/II', 'Client Service Representative', 'Client Service Representative', 'Merchant Services Consultant - Greater Los Angeles Area', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Retirement & Personal Wealth Benefits Specialist - West/Midwest/South Central Regions', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Small Business Banker - Cerritos Financial Center- Cerritos, CA', 'Client Service Representative', 'Relationship Banker- Beach Commonwealth Financial Center, Buena Park, CA- Bilingual Spanish Preferred', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Svcs Team Manager- Bilingual Korean', 'Client Service Representative', 'Wholesale Credit Admin Associate -Chicago', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Merchant Services Consultant - Sherman Oaks, Los Angeles Area, CA', 'Relationship Banker - Bank of America Plaza Financial Center - Los Angeles, CA (Spanish Language Fluency Preferred)', 'Relationship Banker - Bank of America Plaza Financial Center - Los Angeles, CA (Spanish Language Fluency Required)', 'Client Service Representative', 'Client Service Representative', 'Merchant Services Consultant - Beverly & San Vicente / Santa Monica', 'Merchant Services Consultant–Los Angeles/Hollywood Region', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Merchant Services Statement Analyst', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Wholesale Credit Admin Associate', 'Client Service Representative', 'CREB Senior Underwriter', 'Client Service Representative', 'Relationship Banker - Western-Olympic Financial Center - Los Angeles, CA (Korean Fluency Required)', 'Market Executive - Middle Market (Greater Los Angeles - North)', 'Commercial Credit Officer', 'Middle Market Sr. Relationship Manager (South Bay) - Los Angeles Office', 'Treasury Sales Specialist', 'Consumer Investments Financial Solutions Advisor - Westwood Village Financial Center - Los Angeles, CA', 'Sr. Relationship Manager (Healthcare, Education, Not for Profit Group – San Francisco/Los Angeles)', 'Retirement & Personal Wealth (Benefits Specialist) Team Leader', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Relationship Banker- South Coast Financial Center- Santa Ana, CA', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Client Service Representative', 'Relationship Banker- Heritage Plaza Financial Center, Irvine, CA- Bilingual Mandarin Preferred', 'Client Service Representa

tive', 'Client Service Representative', 'Client Service Representative', 'Wea
lth Management Banking Specialist - Irvine, CA', 'Client Service Representati
ve', 'Small Business Banker, Irvine, CA', 'Consumer Investments Financial Sol
utions Advisor - Los Altos Financial Center - Long Beach, CA', 'Client Servic
e Representative', 'Client Service Representative', 'Small Business Banker,
Long Beach, CA', 'Client Service Representative', 'Client Service Representat
ive', 'Client Service Representative', 'Client Service Representative', 'Clie
nt Service Representative', 'Small Business Banker - Culver City, CA', 'Clien
t Service Representative', 'Client Service Representative', 'Client Service R
epresentative', 'Client Service Representative', 'Client Service Representati
ve', 'Client Service Representative', 'Client Service Representative', 'Wealt
h Management Banking Specialist -Costa Mesa, CA', 'Analyst-Investments', 'Ana
lyst-Investments', 'Client Service Representative', 'Relationship Banker - Ha
rbor City Financial Center -Harbor City, CA - (Bilingual Spanish Preferred)',
'Client Service Representative', 'Client Service Representative', 'Client Ser
vice Representative', 'Client Service Representative', 'Client Service Repres
entative', 'Wealth Management Banking Specialist - Pasadena, CA', 'Client Ser
vice Representative', 'Client Service Representative', 'Client Service Repres
entative', 'Team Lead- Mainframe Application Development Programming', 'Clien
t Service Representative', 'Client Service Representative', 'Client Service R
epresentative', 'Client Service Representative', 'Client Service Representati
ve', 'Client Service Representative', 'Consumer Investment Financial Solution
s Advisor - Lincoln Manchester Financial Center- Los Angeles, CA', 'Client Se
rvice Representative', 'Relationship Banker - Riviera Village Financial Cente
r - Redondo Beach, CA', 'Relationship Banker - Encino Financial Center - Enci
no, CA', 'Wealth Management Banking Specialist - Rolling Hills Estate, CA',
'Client Service Representative', 'Wealth Management Banking Specialist -Newpo
rt Beach, CA', 'Client Service Representative', 'Client Associate', 'Client S
ervice Representative', 'Merrill Financial Solutions Advisor - Newport Office
- Newport Beach, CA', 'Credit Products Manager', 'Client Service Representati
ve', 'Relationship Banker - Devonshire-Reseda Financial Center - Northridge,
CA', 'Small Business Consultant - Corona Del Mar Financial Center- Corona Del
Mar, CA', 'Wealth Management Banking Specialist - Woodland Hills, CA', 'Clien
t Service Representative', 'Relationship Banker - Bouquet Canyon Financial Ce
nter - Santa Clarita, CA - Preferred Language: Spanish', 'Client Service Repr
esentative', 'Relationship Banker- Aliso Viejo Financial Center- Aliso Viejo,
CA', 'Relationship Banker - Chatworth Industrial Financial Center - Chatswort
h, CA- Spanish Required', 'Client Service Representative', 'Client Service Re
presentative', 'Client Service Representative', 'Relationship Banker- San Jua
n Capistrano Financial Center- San Juan Capistrano, CA- Spanish Language Pref
erred', 'Merrill Lynch Wealth Management Market Executive Leadership Academy
– Opportunities Nationwide', 'Product Insights Product Manager', 'Card Networ
k Fee Execution', 'Payments Compliance Analyst', 'Interchange Analyst', 'Paym
ents Compliance Team Lead', 'Approval Officer II', 'Employee Benefits Special
ist - NE Regions', 'Retirement & Personal Wealth Benefits Specialist - NE/SE/
Mid-Atlantic Regions']

```
In [0]:  def getJobsDf(jobs, loc, dates):
            df = pd.DataFrame({'Job Name':jobs, 'Location':loc, 'Date Posted': dates})
            df.head()
            return(df)
```

```
In [0]:  bofa_df = getJobsDf(job_name, locations, dates)
```

```
In [0]: bofa_df.head()
```

Out[0]:

	Job Name	Location	Date Posted
0	Merchant Services Consultant – Azusa/Baldwin P...	Azusa, California	04/13/2020
1	Merchant Services Consultant - East LA	Multiple Locations	04/16/2020
2	Merchant Services Consultant	Multiple Locations	04/20/2020
3	Merchant Services Consultant – Arcadia/Pasaden...	Multiple Locations	04/13/2020
4	Merchant Services Consultant – San Gabriel Val...	Multiple Locations	04/21/2020

```
In [0]: bofa_df.to_csv(r'bofa_job_list.csv',index=False, header=True)
```

Bank of America Twitter Data

```
In [0]: bofa_tweet = getTaggedTweets('#bankofamerica')
```

```
In [0]: bofa_tweet.head()
```

Out[0]:

	user	date	text	favorite_count	hashtags	user_loc
0	EyeCapital	Fri Apr 24 16:42:52 +0000 2020	RT @sussenglish: The big banks reported #earni...	0	[earnings, BankofAmerica, WellsFargo]	
1	sussenglish	Fri Apr 24 16:41:54 +0000 2020	The big banks reported #earnings last week.Thi...	1	[earnings, BankofAmerica, WellsFargo]	Argentina
2	datoeconomia	Fri Apr 24 16:18:01 +0000 2020	#OOTT #OIL \n#BankofAmerica has advised client...	1	[OOTT, OIL, BankofAmerica]	
3	dapinski	Fri Apr 24 16:14:23 +0000 2020	Anyone that continues to say that the big #ban...	0	[banks, JPMorgan]	Philadelphia, PA
4	artaronoff	Fri Apr 24 16:06:30 +0000 2020	#bankofamerica anyone home? No one calls back...	3	[bankofamerica]	

```
In [0]: bofa_tweet.to_csv(r'bofa tweets.csv',index=False, header=True)
```

JPMorgan Chase Co. Web Scraping

```
In [0]: import re
```

```
In [0]: jpmc_url ="https://jobs.jpmorganchase.com/ListJobs/ByCountry/US/"
```

In [0]:
```python
jpmc_soup = getSoup(jpmc_url)
#print(jpmc_soup)# , 'style':'display: block;'
table = jpmc_soup.find('table')
#print(table)

job_name = []
locations = []
dates = []
for row in table.findAll('tr'):
  #print(row)
  job = row.find('td', {'class': 'coloriginaljobtitle'})
  if job != None:
    job_name.append(job.a.text)
  location = row.find('td', {'class':'colstate'})
  city = row.find('td',{'class':'colcity'})
  if location != None:
    locations.append(city.text.strip() + ", " +location.text.strip())
  date_post = row.find('td',{'class':'colpostedon'}) #colpostedon
  if date_post != None:
    dates.append(date_post.text.strip())
```

In [0]: `job_name`

Out[0]:
```
['Principal Collateral Operations - Regulatory IM Onboarding Team',
 'VP, Site Reliability Engineer',
 'Commercial Bank – Product Delivery Integrated Receivables – Receivables Onl
ine - Chicago, Dallas, Columbus, Phoenix, or Tampa - Executive Director',
 'Commercial Bank – Product Delivery Integrated Receivables – Receivables Onl
ine - Chicago, Dallas, Columbus, Phoenix, or Tampa - Executive Director',
 'Commercial Bank – Product Delivery Integrated Receivables – Receivables Onl
ine - Chicago, Dallas, Columbus, Phoenix, or Tampa - Executive Director',
 'Commercial Bank – Product Delivery Integrated Receivables – Receivables Onl
ine - Chicago, Dallas, Columbus, Phoenix, or Tampa - Executive Director',
 'Commercial Bank – Product Delivery Integrated Receivables – Receivables Onl
ine - Chicago, Dallas, Columbus, Phoenix, or Tampa - Executive Director',
 'Commercial Banking - Wholesale Lending Services - Operations Team Leader (C
hicago, IL)',
 'Infrastructure Support - Managed File Transfer',
 'Commercial Bank -  Collateral Release Document Processing Specialist - Whol
esale Lending Services ( Chicago, IL )',
 'Senior Operations Manager - Data Storage',
 'Software Engineer',
 'Software Engineering - Full Stack Java / REST / Microservices Lead',
 'Senior Software Engineer',
 'Network Management Infrastructure Engineer',
 'Employee Experience - User Experience Lead',
 'VP, Site Reliability Engineer',
 'CIB QR - Quantitative Research - Prime Finance & Delta 1 - Associate/Vice P
resident',
 'Chase Consumer Banking - Pittsburgh Market - Branch Manager Trainee - Wilki
nsburg Branch - Pittsburgh, PA',
 'Chase Consumer Banking - Pittsburgh Market - Branch Manager Trainee - Wilki
nsburg Branch - Pittsburgh, PA',
 'Chase Consumer Banking - Pittsburgh Market - Branch Manager Trainee - Bridg
eville Branch - Pittsburgh, PA',
 'Chase Consumer Banking - Pittsburgh Market - Branch Manager Trainee - Bridg
eville Branch - Pittsburgh, PA',
 'Chase Consumer Banking - Pittsburgh Market - Branch Manager Trainee - Sewic
kley Branch - Pittsburgh, PA',
 'Chase Consumer Banking - Pittsburgh Market - Branch Manager Trainee - Sewic
kley Branch - Pittsburgh, PA',
 'Chae Consumer Banking - Pittsburgh Market - Branch Manager Trainee - Oaklan
d Branch - Pittsburgh, PA',
 'Chase Consumer Banking - Mid-Atlantic Region - Private Client Banker - Pike
sville East Branch - Baltimore, MD',
 'Chase Consumer Banking - Mid-Atlantic Region - Private Client Banker - Pike
sville East Branch - Baltimore, MD',
 'Chase Consumer Banking - Mid-Atlantic Region - Relationship Banker - Pikesv
ille East Branch - Baltimore, MD',
 'Chase Consumer Banking - Mid-Atlantic Region - Relationship Banker - Pikesv
ille East Branch - Baltimore, MD',
 'Chase Consumer Banking - Mid-Atlantic Region - Relationship Banker - Connec
ticut Avenue and Porter Street Branch - Washington, DC']
```

In [0]: `locations`

Out[0]:
```
['Newark, DE',
 'Wilmington, DE',
 'Tempe, AZ',
 'Tampa, FL',
 'Dallas, TX',
 'Columbus, OH',
 'Chicago, IL',
 'Chicago, IL',
 'Lewisville, TX',
 'Chicago, IL',
 'Houston, TX',
 'Houston, TX',
 'Tampa, FL',
 'Houston, TX',
 'Columbus, OH',
 'Jersey City, NJ',
 'Wilmington, DE',
 'New York, NY',
 'Pittsburgh, PA',
 'Pittsburgh, PA',
 'Bridgeville, PA',
 'Pittsburgh, PA',
 'Sewickley, PA',
 'Pittsburgh, PA',
 'Pittsburgh, PA',
 'Baltimore, MD',
 'Baltimore, MD',
 'Baltimore, MD',
 'Baltimore, MD',
 'Washington, DC']
```

In [0]:
```python
#df name
jpmc_df = getJobsDf(job_name, locations, dates)
```

In [0]: `jpmc_df.head()`

Out[0]:

	Job Name	Location	Date Posted
0	Principal Collateral Operations - Regulatory I...	Newark, DE	4-24-2020
1	VP, Site Reliability Engineer	Wilmington, DE	4-24-2020
2	Commercial Bank – Product Delivery Integrated ...	Tempe, AZ	4-24-2020
3	Commercial Bank – Product Delivery Integrated ...	Tampa, FL	4-24-2020
4	Commercial Bank – Product Delivery Integrated ...	Dallas, TX	4-24-2020

In [0]:
```python
#for internship
jpmc_df.to_csv(r'jpmorganchase_job_list.csv',index=False, header=True)
```

JPMorgan Chase Co. Twitter Data

```
In [0]:    # Structure data in a pandas DataFrame for easier manipulation
           jpmc_tweets = getTaggedTweets("#jpmorganchase")
```

```
In [0]:    jpmc_tweets.head(5)
```

Out[0]:

	user	date	text	favorite_count	hashtags	user_loc
0	EyeCapital	Fri Apr 24 16:42:52 +0000 2020	RT @sussenglish: The big banks reported #earni...	0	[earnings, BankofAmerica, WellsFargo]	
1	sussenglish	Fri Apr 24 16:41:54 +0000 2020	The big banks reported #earnings last week.Thi...	1	[earnings, BankofAmerica, WellsFargo]	Argentina
2	jktv	Fri Apr 24 14:40:29 +0000 2020	Update on #PPPloans from the #SBA. Reports tha...	0	[PPPloans, SBA]	Chicago, IL
3	learn__together	Fri Apr 24 11:28:32 +0000 2020	RT @ishukhanchi: Today, I have successfully co...	0	[]	Japan
4	femtech_	Fri Apr 24 11:28:32 +0000 2020	RT @ishukhanchi: Today, I have successfully co...	0	[]	Berlin, Deutschland

```
In [0]:    jpmc_tweets.to_csv("JPMC_twitter.csv")
```

Wells Fargo Web Scraping

```
In [0]:    wells_url='https://employment.wellsfargo.com/psc/PSEA/APPLICANT_NW/HRMS/c/HRS_
           HRAM_FL.HRS_CG_SEARCH_FL.GBL?Page=HRS_APP_SCHJOB_FL&Action=U'
```

In [0]:
```python
wells_soup = getSoup(wells_url)

#job_search = soup.find('div', {'title':'Search Results List', 'class':'ps_grid-list'})

#job_search = soup.find('div', {'id':"win0divHRS_AGNT_RSLT_I$grid$0" })
job_list = wells_soup.find('ul', {'class':'ps_grid-body'})
#
print(job_list)
```

```
<ul class="ps_grid-body"><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_
0">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$0">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$0"><input class="psc_off" id="PTS_SELECT$chk$0"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$0" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$0" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$0');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Alabama (12)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$0" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$0"><label class="ps-label" for="PTS_SELECT$0"
id="PTS_SELECT_LBL$0">Alabama (12)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_1">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$1">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$1"><input class="psc_off" id="PTS_SELECT$chk$1"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$1" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$1" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$1');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Alaska (4)" type="checkbox"
value="Y"/><label class="ps_indicator" for="PTS_SELECT$1" ptchecked_text="Ye
s" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span class
="psc_off_container">No</span></label></div><div class="ps_box-label ps_righ
t" id="win0divPTS_SELECTlbl$1"><label class="ps-label" for="PTS_SELECT$1" id
="PTS_SELECT_LBL$1">Alaska (4)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_2">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$2">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$2"><input class="psc_off" id="PTS_SELECT$chk$2"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$2" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$2" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$2');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Arizona (317)" type="checkb
ox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$2" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$2"><label class="ps-label" for="PTS_SELECT$2"
id="PTS_SELECT_LBL$2">Arizona (317)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_3">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$3">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$3"><input class="psc_off" id="PTS_SELECT$chk$3"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$3" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$3" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
```

```
s, 'PTS_SELECT$chk$3');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Arkansas (1)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$3" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$3"><label class="ps-label" for="PTS_SELECT$3"
id="PTS_SELECT_LBL$3">Arkansas (1)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_4">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$4">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$4"><input class="psc_off" id="PTS_SELECT$chk$4"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$4" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$4" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$4');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="California (159)" type="che
ckbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$4" ptchecked_te
xt="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$4"><label class="ps-label" for="PTS_SELECT$4"
id="PTS_SELECT_LBL$4">California (159)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_5">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$5">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$5"><input class="psc_off" id="PTS_SELECT$chk$5"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$5" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$5" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$5');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Colorado (32)" type="checkb
ox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$5" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$5"><label class="ps-label" for="PTS_SELECT$5"
id="PTS_SELECT_LBL$5">Colorado (32)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_6">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$6">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$6"><input class="psc_off" id="PTS_SELECT$chk$6"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$6" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$6" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$6');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Connecticut (9)" type="chec
kbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$6" ptchecked_tex
t="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$6"><label class="ps-label" for="PTS_SELECT$6"
id="PTS_SELECT_LBL$6">Connecticut (9)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_7">
```

```
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$7">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$7"><input class="psc_off" id="PTS_SELECT$chk$7"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$7" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$7" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$7');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Delaware (12)" type="checkb
ox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$7" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$7"><label class="ps-label" for="PTS_SELECT$7"
id="PTS_SELECT_LBL$7">Delaware (12)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_8">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$8">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$8"><input class="psc_off" id="PTS_SELECT$chk$8"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$8" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$8" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$8');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="District of Columbia (6)" t
ype="checkbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$8" ptch
ecked_text="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</sp
an><span class="psc_off_container">No</span></label></div><div class="ps_box-
label ps_right" id="win0divPTS_SELECTlbl$8"><label class="ps-label" for="PTS_
SELECT$8" id="PTS_SELECT_LBL$8">District of Columbia (6)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_9">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$9">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$9"><input class="psc_off" id="PTS_SELECT$chk$9"
type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$9" onclick="doRadioOute
rClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$9" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(thi
s, 'PTS_SELECT$chk$9');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Florida (30)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$9" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$9"><label class="ps-label" for="PTS_SELECT$9"
id="PTS_SELECT_LBL$9">Florida (30)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_10">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$10">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$10"><input class="psc_off" id="PTS_SELECT$chk$1
0" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$10" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$10" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$10');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
```

```
="0" ptchecked_val="Y" ptunchecked_val="N" title="Georgia (28)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$10" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$10"><label class="ps-label" for="PTS_SELECT$1
0" id="PTS_SELECT_LBL$10">Georgia (28)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_11">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$11">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$11"><input class="psc_off" id="PTS_SELECT$chk$1
1" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$11" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$11" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$11');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Idaho (5)" type="checkbox"
value="Y"/><label class="ps_indicator" for="PTS_SELECT$11" ptchecked_text="Ye
s" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span class
="psc_off_container">No</span></label></div><div class="ps_box-label ps_righ
t" id="win0divPTS_SELECTlbl$11"><label class="ps-label" for="PTS_SELECT$11" i
d="PTS_SELECT_LBL$11">Idaho (5)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_12">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$12">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$12"><input class="psc_off" id="PTS_SELECT$chk$1
2" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$12" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$12" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$12');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Illinois (139)" type="check
box" value="Y"/><label class="ps_indicator" for="PTS_SELECT$12" ptchecked_tex
t="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$12"><label class="ps-label" for="PTS_SELECT$1
2" id="PTS_SELECT_LBL$12">Illinois (139)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_13">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$13">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$13"><input class="psc_off" id="PTS_SELECT$chk$1
3" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$13" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$13" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$13');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Indiana (3)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$13" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$13"><label class="ps-label" for="PTS_SELECT$1
3" id="PTS_SELECT_LBL$13">Indiana (3)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_14">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$14">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
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ormal" id="win0divPTS_SELECT$14"><input class="psc_off" id="PTS_SELECT$chk$1
4" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$14" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$14" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$14');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Iowa (215)" type="checkbox"
value="Y"/><label class="ps_indicator" for="PTS_SELECT$14" ptchecked_text="Ye
s" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span class
="psc_off_container">No</span></label></div><div class="ps_box-label ps_righ
t" id="win0divPTS_SELECTlbl$14"><label class="ps-label" for="PTS_SELECT$14" i
d="PTS_SELECT_LBL$14">Iowa (215)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_15">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$15">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$15"><input class="psc_off" id="PTS_SELECT$chk$1
5" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$15" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$15" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$15');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Kansas (3)" type="checkbox"
value="Y"/><label class="ps_indicator" for="PTS_SELECT$15" ptchecked_text="Ye
s" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span class
="psc_off_container">No</span></label></div><div class="ps_box-label ps_righ
t" id="win0divPTS_SELECTlbl$15"><label class="ps-label" for="PTS_SELECT$15" i
d="PTS_SELECT_LBL$15">Kansas (3)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_16">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$16">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$16"><input class="psc_off" id="PTS_SELECT$chk$1
6" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$16" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$16" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$16');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Kentucky (1)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$16" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$16"><label class="ps-label" for="PTS_SELECT$1
6" id="PTS_SELECT_LBL$16">Kentucky (1)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_17">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$17">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$17"><input class="psc_off" id="PTS_SELECT$chk$1
7" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$17" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$17" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$17');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Maryland (26)" type="checkb
ox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$17" ptchecked_text
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="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$17"><label class="ps-label" for="PTS_SELECT$1
7" id="PTS_SELECT_LBL$17">Maryland (26)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_18">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$18">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$18"><input class="psc_off" id="PTS_SELECT$chk$1
8" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$18" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$18" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$18');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Massachusetts (26)" type="c
heckbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$18" ptchecked
_text="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><s
pan class="psc_off_container">No</span></label></div><div class="ps_box-label
ps_right" id="win0divPTS_SELECTlbl$18"><label class="ps-label" for="PTS_SELEC
T$18" id="PTS_SELECT_LBL$18">Massachusetts (26)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_19">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$19">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$19"><input class="psc_off" id="PTS_SELECT$chk$1
9" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$19" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$19" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$19');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Michigan (4)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$19" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$19"><label class="ps-label" for="PTS_SELECT$1
9" id="PTS_SELECT_LBL$19">Michigan (4)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_20">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$20">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$20"><input class="psc_off" id="PTS_SELECT$chk$2
0" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$20" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$20" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$20');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Minnesota (379)" type="chec
kbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$20" ptchecked_te
xt="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$20"><label class="ps-label" for="PTS_SELECT$2
0" id="PTS_SELECT_LBL$20">Minnesota (379)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_21">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$21">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$21"><input class="psc_off" id="PTS_SELECT$chk$2
1" type="hidden" value="N"/>
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<div class="ps_box-control" id="win0divPTS_SELECTctrl$21" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$21" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$21');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Mississippi (3)" type="chec
kbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$21" ptchecked_te
xt="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$21"><label class="ps-label" for="PTS_SELECT$2
1" id="PTS_SELECT_LBL$21">Mississippi (3)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_22">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$22">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$22"><input class="psc_off" id="PTS_SELECT$chk$2
2" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$22" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$22" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$22');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Missouri (118)" type="check
box" value="Y"/><label class="ps_indicator" for="PTS_SELECT$22" ptchecked_tex
t="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$22"><label class="ps-label" for="PTS_SELECT$2
2" id="PTS_SELECT_LBL$22">Missouri (118)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_23">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$23">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$23"><input class="psc_off" id="PTS_SELECT$chk$2
3" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$23" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$23" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$23');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Montana (5)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$23" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$23"><label class="ps-label" for="PTS_SELECT$2
3" id="PTS_SELECT_LBL$23">Montana (5)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_24">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$24">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$24"><input class="psc_off" id="PTS_SELECT$chk$2
4" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$24" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$24" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$24');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Nebraska (2)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$24" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
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ight" id="win0divPTS_SELECTlbl$24"><label class="ps-label" for="PTS_SELECT$2
4" id="PTS_SELECT_LBL$24">Nebraska (2)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_25">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$25">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$25"><input class="psc_off" id="PTS_SELECT$chk$2
5" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$25" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$25" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$25');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Nevada (5)" type="checkbox"
value="Y"/><label class="ps_indicator" for="PTS_SELECT$25" ptchecked_text="Ye
s" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span class
="psc_off_container">No</span></label></div><div class="ps_box-label ps_righ
t" id="win0divPTS_SELECTlbl$25"><label class="ps-label" for="PTS_SELECT$25" i
d="PTS_SELECT_LBL$25">Nevada (5)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_26">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$26">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$26"><input class="psc_off" id="PTS_SELECT$chk$2
6" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$26" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$26" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$26');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="New Hampshire (4)" type="ch
eckbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$26" ptchecked_
text="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><sp
an class="psc_off_container">No</span></label></div><div class="ps_box-label
ps_right" id="win0divPTS_SELECTlbl$26"><label class="ps-label" for="PTS_SELEC
T$26" id="PTS_SELECT_LBL$26">New Hampshire (4)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_27">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$27">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$27"><input class="psc_off" id="PTS_SELECT$chk$2
7" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$27" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$27" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$27');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="New Jersey (149)" type="che
ckbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$27" ptchecked_t
ext="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><spa
n class="psc_off_container">No</span></label></div><div class="ps_box-label p
s_right" id="win0divPTS_SELECTlbl$27"><label class="ps-label" for="PTS_SELECT
$27" id="PTS_SELECT_LBL$27">New Jersey (149)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_28">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$28">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$28"><input class="psc_off" id="PTS_SELECT$chk$2
8" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$28" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
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$28" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$28');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="New Mexico (1)" type="check
box" value="Y"/><label class="ps_indicator" for="PTS_SELECT$28" ptchecked_tex
t="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$28"><label class="ps-label" for="PTS_SELECT$2
8" id="PTS_SELECT_LBL$28">New Mexico (1)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_29">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$29">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$29"><input class="psc_off" id="PTS_SELECT$chk$2
9" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$29" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$29" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$29');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="New York (102)" type="check
box" value="Y"/><label class="ps_indicator" for="PTS_SELECT$29" ptchecked_tex
t="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$29"><label class="ps-label" for="PTS_SELECT$2
9" id="PTS_SELECT_LBL$29">New York (102)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_30">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$30">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$30"><input class="psc_off" id="PTS_SELECT$chk$3
0" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$30" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$30" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$30');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="North Carolina (493)" type
="checkbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$30" ptchec
ked_text="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span
><span class="psc_off_container">No</span></label></div><div class="ps_box-la
bel ps_right" id="win0divPTS_SELECTlbl$30"><label class="ps-label" for="PTS_S
ELECT$30" id="PTS_SELECT_LBL$30">North Carolina (493)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_31">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$31">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$31"><input class="psc_off" id="PTS_SELECT$chk$3
1" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$31" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$31" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$31');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="North Dakota (9)" type="che
ckbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$31" ptchecked_t
ext="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><spa
n class="psc_off_container">No</span></label></div><div class="ps_box-label p
s_right" id="win0divPTS_SELECTlbl$31"><label class="ps-label" for="PTS_SELECT
$31" id="PTS_SELECT_LBL$31">North Dakota (9)</label></div>
```

```
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_32">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$32">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$32"><input class="psc_off" id="PTS_SELECT$chk$3
2" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$32" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$32" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$32');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Ohio (1)" type="checkbox" v
alue="Y"/><label class="ps_indicator" for="PTS_SELECT$32" ptchecked_text="Ye
s" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span class
="psc_off_container">No</span></label></div><div class="ps_box-label ps_righ
t" id="win0divPTS_SELECTlbl$32"><label class="ps-label" for="PTS_SELECT$32" i
d="PTS_SELECT_LBL$32">Ohio (1)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_33">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$33">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$33"><input class="psc_off" id="PTS_SELECT$chk$3
3" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$33" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$33" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$33');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Oregon (31)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$33" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$33"><label class="ps-label" for="PTS_SELECT$3
3" id="PTS_SELECT_LBL$33">Oregon (31)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_34">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$34">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$34"><input class="psc_off" id="PTS_SELECT$chk$3
4" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$34" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$34" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$34');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Pennsylvania (95)" type="ch
eckbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$34" ptchecked_
text="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><sp
an class="psc_off_container">No</span></label></div><div class="ps_box-label
ps_right" id="win0divPTS_SELECTlbl$34"><label class="ps-label" for="PTS_SELEC
T$34" id="PTS_SELECT_LBL$34">Pennsylvania (95)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_35">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$35">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$35"><input class="psc_off" id="PTS_SELECT$chk$3
5" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$35" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$35" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$35');addchg_win0(this);submitAction_win0(this.form,this.i
```

```
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="South Carolina (430)" type
="checkbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$35" ptchec
ked_text="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span
><span class="psc_off_container">No</span></label></div><div class="ps_box-la
bel ps_right" id="win0divPTS_SELECTlbl$35"><label class="ps-label" for="PTS_S
ELECT$35" id="PTS_SELECT_LBL$35">South Carolina (430)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_36">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$36">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$36"><input class="psc_off" id="PTS_SELECT$chk$3
6" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$36" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$36" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$36');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="South Dakota (17)" type="ch
eckbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$36" ptchecked_
text="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><sp
an class="psc_off_container">No</span></label></div><div class="ps_box-label
ps_right" id="win0divPTS_SELECTlbl$36"><label class="ps-label" for="PTS_SELEC
T$36" id="PTS_SELECT_LBL$36">South Dakota (17)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_37">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$37">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$37"><input class="psc_off" id="PTS_SELECT$chk$3
7" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$37" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$37" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$37');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Tennessee (3)" type="checkb
ox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$37" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$37"><label class="ps-label" for="PTS_SELECT$3
7" id="PTS_SELECT_LBL$37">Tennessee (3)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_38">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$38">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$38"><input class="psc_off" id="PTS_SELECT$chk$3
8" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$38" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$38" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$38');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Texas (117)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$38" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$38"><label class="ps-label" for="PTS_SELECT$3
8" id="PTS_SELECT_LBL$38">Texas (117)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_39">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$39">
```

```
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$39"><input class="psc_off" id="PTS_SELECT$chk$3
9" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$39" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$39" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$39');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Utah (31)" type="checkbox"
value="Y"/><label class="ps_indicator" for="PTS_SELECT$39" ptchecked_text="Ye
s" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span class
="psc_off_container">No</span></label></div><div class="ps_box-label ps_righ
t" id="win0divPTS_SELECTlbl$39"><label class="ps-label" for="PTS_SELECT$39" i
d="PTS_SELECT_LBL$39">Utah (31)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_40">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$40">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$40"><input class="psc_off" id="PTS_SELECT$chk$4
0" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$40" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$40" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$40');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Virginia (38)" type="checkb
ox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$40" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$40"><label class="ps-label" for="PTS_SELECT$4
0" id="PTS_SELECT_LBL$40">Virginia (38)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_41">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$41">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$41"><input class="psc_off" id="PTS_SELECT$chk$4
1" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$41" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$41" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$41');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Washington (34)" type="chec
kbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$41" ptchecked_te
xt="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$41"><label class="ps-label" for="PTS_SELECT$4
1" id="PTS_SELECT_LBL$41">Washington (34)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_42">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$42">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$42"><input class="psc_off" id="PTS_SELECT$chk$4
2" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$42" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$42" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$42');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="West Virginia (6)" type="ch
```

```
eckbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$42" ptchecked_
text="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><sp
an class="psc_off_container">No</span></label></div><div class="ps_box-label
ps_right" id="win0divPTS_SELECTlbl$42"><label class="ps-label" for="PTS_SELEC
T$42" id="PTS_SELECT_LBL$42">West Virginia (6)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_43">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$43">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$43"><input class="psc_off" id="PTS_SELECT$chk$4
3" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$43" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$43" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$43');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Wisconsin (371)" type="chec
kbox" value="Y"/><label class="ps_indicator" for="PTS_SELECT$43" ptchecked_te
xt="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span
class="psc_off_container">No</span></label></div><div class="ps_box-label ps_
right" id="win0divPTS_SELECTlbl$43"><label class="ps-label" for="PTS_SELECT$4
3" id="PTS_SELECT_LBL$43">Wisconsin (371)</label></div>
</div></div></li><li class="ps_grid-row" id="PTS_FACETVALUES$0_row_44">
<div class="ps_box-group psc_layout" id="win0divPTS_GROUP_BOX$44">
<div class="ps_box-checkbox psc_standard psc_margin-top0_2em pts_fontweight-n
ormal" id="win0divPTS_SELECT$44"><input class="psc_off" id="PTS_SELECT$chk$4
4" type="hidden" value="N"/>
<div class="ps_box-control" id="win0divPTS_SELECTctrl$44" onclick="doRadioOut
erClick(this);cancelBubble(event);"><input class="ps-checkbox" id="PTS_SELECT
$44" onblur="clearOutline(this.nextElementSibling);" onclick="doRadioClick(th
is, 'PTS_SELECT$chk$44');addchg_win0(this);submitAction_win0(this.form,this.i
d);" onfocus="setOutlineTimer(this.id);doFocus_win0(this,false,true);" psnchg
="0" ptchecked_val="Y" ptunchecked_val="N" title="Wyoming (1)" type="checkbo
x" value="Y"/><label class="ps_indicator" for="PTS_SELECT$44" ptchecked_text
="Yes" ptunchecked_text="No"><span class="psc_on_container">Yes</span><span c
lass="psc_off_container">No</span></label></div><div class="ps_box-label ps_r
ight" id="win0divPTS_SELECTlbl$44"><label class="ps-label" for="PTS_SELECT$4
4" id="PTS_SELECT_LBL$44">Wyoming (1)</label></div>
</div></div></li></ul>
```

In [0]:
```python
import re
#in job search find li
job_name = []
locations = []
dates = []
for row in wells_soup.findAll('li', {'id': re.compile('^HRS_AGNT')}):

  job = row.find('span', {'class':'ps_box-value'})
  job_name.append(job.text)
  location = row.find('span', {'id': re.compile('^LOCATION')})
  locations.append(location.text)
  date_post = row.find('span', {'id': re.compile('^SCH_OPENED')})
  dates.append(date_post.text)
```

In [0]:
```python
wells_df = getJobsDf(job_name, locations, dates)
```

In [0]: `wells_df.head()`

Out[0]:

	Job Name	Location	Date Posted
0	Account Resolution Specialist 2	UT-Salt Lake City	04/24/2020
1	Account Resolution Specialist 3	UT-Salt Lake City	04/24/2020
2	Account Resolutions Specialist 1	UT-Salt Lake City	04/24/2020
3	Apps Systems Engineer 5	MN-Minneapolis	04/24/2020
4	Branch Manager 2 - Rainier Avenue - Seattle, WA	WA-Seattle	04/24/2020

In [0]: `wells_df.to_csv(r'wellsfargo_job_list.csv',index=False, header=True)`

Wells Fargo Twitter Data

In [0]:
```
# Structure data in a pandas DataFrame for easier manipulation
wells_tweets = getTaggedTweets("#wellsfargo")
```

In [0]: `wells_tweets.head(5)`

Out[0]:

	user	date	text	favorite_count	hashtags	user_loc
0	LANIorg	Fri Apr 24 17:01:37 +0000 2020	Renovations at Wilmington Town Square will be ...	0	[]	Los Angeles, CA
1	EyeCapital	Fri Apr 24 16:42:52 +0000 2020	RT @sussenglish: The big banks reported #earni...	0	[earnings, BankofAmerica, WellsFargo]	
2	sussenglish	Fri Apr 24 16:41:54 +0000 2020	The big banks reported #earnings last week.Thi...	1	[earnings, BankofAmerica, WellsFargo]	Argentina
3	dapinski	Fri Apr 24 16:14:23 +0000 2020	Anyone that continues to say that the big #ban...	0	[banks, JPMorgan]	Philadelphia, PA
4	CnLi0n	Fri Apr 24 15:38:42 +0000 2020	Well now my bank has taken the rest of my mone...	0	[]	Downtown, Austin

In [0]: `wells_tweets.to_csv("wellsfargotweets.csv")`

Citi Group Web Scraping

In [0]: `citi_url= "https://jobs.citi.com/search-jobs"`

```python
citi_soup = getSoup(citi_url)


job_name = []
locations = []
dates = []
#to get all li
job_list = citi_soup.find('section', attrs = {'id':'search-results-list'})
for row in job_list.findAll('li'):
  job_name.append(row.h2.text)
  locations.append(row.find('span', attrs = {'class': 'job-location'}).text)
  dates.append(row.find('span', attrs = {'class': 'job-date-posted'}).text)
```

```python
citi_df = getJobsDf(job_name, locations, dates)
```

```python
citi_df.head()
```

Out[0]:

	Job Name	Location	Date Posted
0	Vice President, Capital Planning Design	New York, New York, United States	04/23/2020
1	Vice President - Treasury GPO/Financial Soluti...	New York, New York, United States	04/23/2020
2	Service Rep 5	Tuxtla Gutiérrez, Mexico	04/23/2020
3	Solutions Sales Sr. Group Manager	Miami, Florida, United States	04/23/2020
4	SME Relationship Manager - 11	Multiple Locations	04/23/2020

```python
citi_df.to_csv(r'citi_job_list.csv',index=False, header=True)
```

Citi Group Twitter Data

```python
# Structure data in a pandas DataFrame for easier manipulation
citi_tweets = getTaggedTweets("#CitiGroup")
```

```
In [0]: citi_tweets.head(5)
```

Out[0]:

	user	date	text	favorite_count	hashtags	user_loc
0	EyeCapital	Fri Apr 24 16:43:00 +0000 2020	RT @sussenglish: Faced with unprecedented dema...	0	[credit, corporateloans, COVID]	
1	sussenglish	Fri Apr 24 16:29:40 +0000 2020	Faced with unprecedented demand for #credit li...	0	[credit, corporateloans, COVID]	Argentina
2	dapinski	Fri Apr 24 16:14:23 +0000 2020	Anyone that continues to say that the big #ban...	0	[banks, JPMorgan]	Philadelphia, PA
3	CkShow979	Fri Apr 24 12:26:31 +0000 2020	The online bank Ally announced they're forgivi...	0	[]	North Carolina, USA
4	Tickeron	Fri Apr 24 09:53:29 +0000 2020	$C in Downtrend: Stochastic indicator is remai...	0	[]	Sunnyvale, CA

```
In [0]: citi_tweets.to_csv(r'citigroup tweets.csv',index=False, header=True)
```

Goldman Sachs Twitter Data

Goldman Sachs site couldnt be parsed using an html parser and hence we manually entered the jobs present.

```
In [0]: # Structure data in a pandas DataFrame for easier manipulation
        goldman_tweets = getTaggedTweets('#goldmansachs')
```

In [0]: `goldman_tweets.head(5)`

Out[0]:

	user	date	text	favorite_count	hashtags	user_
0	WestJournalism	Fri Apr 24 02:00:32 +0000 2020	Kelly took a big stand, but apparently the cor...	21	[2020election, Arizona]	Phoenix,
1	laserhaas01	Fri Apr 24 17:24:14 +0000 2020	RT @An0nAKn0wledge: Goldman Sachs Is Split In ...	0	[CultureOfCorruption, GoldmanSachs]	Roaming DE, CA, DC
2	An0nAKn0wledge	Fri Apr 24 17:02:44 +0000 2020	RT @An0nAKn0wledge: Goldman Sachs Is Split In ...	0	[CultureOfCorruption, GoldmanSachs]	EVERYWHE B NOWHE
3	BitcoinFr2030	Fri Apr 24 16:49:07 +0000 2020	If you support \n#blackrock #goldmansachs and ...	0	[blackrock, goldmansachs, StockMarket]	Delaware, U
4	MtnManMerica	Fri Apr 24 16:38:49 +0000 2020	RT @WestJournalism: Kelly took a big stand, bu...	0	[2020election, Arizona, CampaignFinance]	San Di

In [0]: `goldman_tweets.to_csv(r'goldman tweets.csv',index=False, header=True)`

Comparison between Companies

Bofa vs Citi

In [0]: `bofa_citi_url = 'https://www.diffen.com/difference/Bank_of_America_vs_Citigroup'`

In [0]:
```python
bofa_citi_soup = getSoup(bofa_citi_url)
table = bofa_citi_soup.find('table')
result = []
for row in table.findAll('tr'):
  result.append([at.string for at in row.findAll('td')])
result = result[3:]
print(result)
```

[['Charlotte, North Carolina, U.S.', 'New York City, USA'], ['Kenneth D. Lewis, Chairman, President & CEO Amy W. Brinkley, Global Risk Executive J. Steele Alphin, CAO Joe L. Price, CFO', 'Sir Win Bischoff, Chairman \nVikram Pandit, CEO \nGary Crittenden, CFO'], ['Banking', 'Financial services'], ['Financial Services', 'Consumer Banking \nCorporate Banking \nStockbroking \nInvestment Banking \nGlobal Wealth Management \nInvestment Research \nPrivate Equity \nStructured Products'], ['$117.01 billion USD (2006)', 'US $146.7 billion (2006)'], ['$21.13 billion USD (2006)', 'US $21.538 billion (2006)'], ['203,425 (2006)', '332,000 (2007)'], ['Bank of Opportunity', "Let's get it done."], ['www.bankofamerica.com www.bofa.com', 'www.citigroup.com'], ['Bank of America (NYSE: BAC TYO: 8648) is the largest commercial bank in the United States in terms of deposits, and the 2nd largest company of its kind in the world behind Citigroup.[4][5][6]', 'Citigroup Inc. (NYSE: C), operating as Citi, is a major American financial services company based in New York City, formed from the merger of Citicorp and Travelers Group on April 7, 1998.[3] According to Forbes Global 2000 in March 2007, it is the l'], ['Public (NYSE: BAC TYO: 8648)', 'Public (NYSE: C)'], ['(as "Bank of Italy") San Francisco, CA (1928) (acquiring banks) Charlotte, NC (1874) Boston, MA (1784)', 'New York City, USA (1812)']]

In [0]:
```python
bofa_citi_df = pd.DataFrame( columns = ['BofA', 'Citi'], index= ['Headquarters', 'Key People', 'Industry', 'Products', 'Revenue', 'Net Income', 'Employees','Slogan', 'Website', 'Introduction', 'Type', 'Founded'], data = result)
```

In [0]:
```python
bofa_citi_df.head()
```

Out[0]:

	BofA	Citi
Headquarters	Charlotte, North Carolina, U.S.	New York City, USA
Key People	Kenneth D. Lewis, Chairman, President & CEO A...	Sir Win Bischoff, Chairman \nVikram Pandit, CE...
Industry	Banking	Financial services
Products	Financial Services	Consumer Banking \nCorporate Banking \nStockbr...
Revenue	$117.01 billion USD (2006)	US $146.7 billion (2006)

In [0]:
```python
bofa_citi_df.to_csv(r'bofavsciti.csv',index=False, header=True)
```

Bofa vs JPMC

In [0]:
```python
bofa_jpmc_url= 'https://www.diffen.com/difference/Bank_of_America_vs_JPMorgan_Chase'
```

```
In [0]: bofa_jpmc_soup = getSoup(bofa_jpmc_url)
```

```
In [0]: table = bofa_jpmc_soup.find('table')
        result = []
        for row in table.findAll('tr'):
          result.append([at.string for at in row.findAll('td')])
        result = result[3:]
        print(result)
```

[['Charlotte, North Carolina, U.S.', 'New York, NY, U.S.'], ['Kenneth D. Lewis, Chairman, President & CEO Amy W. Brinkley, Global Risk Executive J. Steele Alphin, CAO Joe L. Price, CFO', 'Jamie Dimon, Chairman, President & CEO'], ['Banking', 'Finance and Insurance'], ['Financial Services', 'Financial Services'], ['$117.01 billion USD (2006)', 'US$99.9 billion (2007)'], ['$21.13 billion USD (2006)', 'US$14.4 billion (2007)'], ['203,425 (2006)', '174,360 (2007)'], ['www.bankofamerica.com www.bofa.com', 'www.jpmorganchase.com\nwww.jpmorgan.com\nwww.chase.com'], ['Bank of America (NYSE: BAC TYO: 8648) is the largest commercial bank in the United States in terms of deposits, and the 2nd largest company of its kind in the world behind Citigroup.[4][5][6]', 'JPMorgan Chase (NYSE: JPM) is one of the oldest financial services firms in the world. The company, headquartered in New York City, is one of the leaders in investment banking, retail financial services, asset and wealth management and private equity'], ['Public (NYSE: BAC TYO: 8648)', 'Public (NYSE: JPM, TYO: 8634)'], ['(as "Bank of Italy") San Francisco, CA (1928) (acquiring banks) Charlotte, NC (1874) Boston, MA (1784)', '1799']]

```
In [0]: bofa_jpmc_df = pd.DataFrame( columns = ['BofA', 'JPMC'], index= ['Token', 'Headquarters', 'Industry', 'Products', 'Revenue', 'Net Income', 'Employees', 'Webstie', 'Intorduction', 'Type', 'Founded'], data = result)
```

```
In [0]: bofa_jpmc_df.head()
```

Out[0]:

	BofA	JPMC
Token	Charlotte, North Carolina, U.S.	New York, NY, U.S.
Headquarters	Kenneth D. Lewis, Chairman, President & CEO A...	Jamie Dimon, Chairman, President & CEO
Industry	Banking	Finance and Insurance
Products	Financial Services	Financial Services
Revenue	$117.01 billion USD (2006)	US$99.9 billion (2007)

```
In [0]: bofa_jpmc_df.to_csv(r'bofavsjpmc.csv',index=False, header=True)
```

Wells Fargo vs Goldmansachs

```
In [0]: wells_gold_url = 'https://www.diffen.com/difference/Goldman_Sachs_vs_Wells_Fargo'
```

In [0]:
```python
wells_gold_soup = getSoup(wells_gold_url)
#print(soup)
table = wells_gold_soup.find('table')
result = []
for row in table.findAll('tr'):
    result.append([at.string for at in row.findAll('td')])
result = result[3:]
print(result)
```

[["The Goldman Sachs Group, Inc., or simply Goldman Sachs (NYSE: GS), is one of the world's largest global investment banks. Goldman Sachs was founded in 1869, and is headquartered in the Lower Manhattan area of New York City at 85 Broad Street.[1] Gold", 'Wells Fargo & Co. (NYSE: WFC) is a diversified f inancial services company in the United States with operations around the wor ld. Wells Fargo is the 5th largest bank in the US by assets and the 9th large st bank in the world by market cap.[1] It is'], ['Public (NYSE: GS)', 'Public (NYSE: WFC)'], ['1869', 'New York, New York, USA (March 18, 1852)'], ['New Yo rk, NY', '420 Montgomery, San Francisco, California, USA'], ['Lloyd Blankfei n, Chairman & CEO \nGary Cohn, President & COO \nJon Winkelried, President an d COO \nJohn S. Weinberg, Vice Chairman \nDavid A. Viniar, CFO \nEdward C. Fo rst, CAO \nGregory K. Palm, General Counsel \nEsta E. Stecher, General Counse l \nKevin W.', 'Richard Kovacevich, \nChairman \nJohn Stumpf, \nPresident and CEO'], ['Investment Banking', 'Retail Banking \nInsurance \nInvestments \nMor tgages \nConsumer Finance \nCorporate and Investment Banking'], ['US $46 Bill ion (2007)', 'US $35.691 billion (2006)'], ['US $11.4 Billion (2007)', '$8.48 4 billion USD (2006)'], ['34,809 (2007)', '160,000(2007)'], ["Our clients' in terests always come first.", '"The Next Stage"'], ['www.gs.com', 'www.wellsfa rgo.com']]

In [0]:
```python
wells_gold_df = pd.DataFrame( columns = ['Wells', 'Goldman'], index= ['Introdu ction', 'Type', 'Founded', 'Headquarters','Key People','Products', 'Revenue', 'Net Income', 'Employees','Slogan', 'Website'], data = result)
```

In [0]:
```python
wells_gold_df.head()
```

Out[0]:

	Wells	Goldman
Introduction	The Goldman Sachs Group, Inc., or simply Goldm...	Wells Fargo & Co. (NYSE: WFC) is a diversi...
Type	Public (NYSE: GS)	Public (NYSE: WFC)
Founded	1869	New York, New York, USA (March 18, 1852)
Headquarters	New York, NY	420 Montgomery, San Francisco, California, USA
Key People	Lloyd Blankfein, Chairman & CEO \nGary Cohn, P...	Richard Kovacevich, \nChairman \nJohn Stumpf, ...

In [0]:
```python
wells_gold_df.to_csv(r'wellsvsgoldman.csv',index=False, header=True)
```