**Question 1: Consider a ﬁle with the following matrix X:**

**[1 2**

**3 4]**

**Perform following operations-   
 i. read data from an excel/csv file   
 ii. compute Y = 3∗X now with NumPy and  
 iii. store the output in a new excel file**

**Code**:

(i)

#importing pandas module

**import pandas as pd**

#reading data from excel file

**X=pd.read\_excel('C:\Users\IBM\_ADMIN\Desktop\input.xlsx')**

**print(X)**

(ii)

#importing numpy module

**import numpy as np**

**mulvalue = np.array(3)**

**Y = mulvalue\*X**

**print(Y)**

(iii)

**df = pd.dataframe(Y)**

**writer = pd.Excelwriter('new\_file.xlsx')**

**df.to\_excel(writer)**

**writer.save()**

**Question 2:** Write code for extracting news of a url (<http://fox13now.com/2013/12/30/new-year-new-laws-obamacare-pot-guns-and-drones/>) and summarize the news

**Code**:

#importing urllib module, bs4

**import urllib.request**

**from bs4 import BeautifulSoup**

**my\_url = "http://fox13now.com/2013/12/30/new-year-new-laws-obamacare-pot-guns-and-drones"**

# open a connection to a url

**weburl = urllib.request.urlopen(my\_url)**

#status code

**print("result code: " + str(weburl.getcode()))**

#reading html data

**data = webrul.read()**

**print(data)**

**soup = BeautifulSoup(data, 'html.parser')**

#title of the page

**title = soup.title**

**print(title)**

#to extract html tags with in the web page

**print(soup.find\_all('a'))**

# Grabs some part of text data for validating by inspecting webpage

**content = soup.find('div', attrs ={'class' : 'p402\_premium'})**

**print(content)**

**3) Question 3:** Create a Django program to extract tweets for last month for handle '@BCCI' (create user id /Token etc., as required)

**import json**

**import tweepy**

**import csv**

# creating a dictionary to store twitter credentials

**twitter\_cred = dict()**

#Inputting own consumer\_key, consumer\_secret, access\_key and access\_secret

**twitter\_cred['CONSUMER\_KEY'] = ' XhNoxhkmvm281LtvCNC8X2OmV'**

**twitter\_cred['CONSUMER\_SECRET']'uIjJaxe1UabXqx4l2aL5ocURT24cbcoQhxWUYOHbjvWwcTu9WG'**

**twitter\_cred['ACCESS\_KEY'] = ' 1075754716687040512-WIgyPOwthfPDI4tfx1Hcy4eqHI3YpP'**

**twitter\_cred['ACCESS\_SECRET'] = ‘1up2kr158GwhfkVhLJE84PHhNkU3LwS9rduxLziXZ21Aq’**

# Saving the information to a json

**with open('twitter\_credentials.json', 'w') as secret\_info:**

**json.dump(twitter\_cred, secret\_info, indent=4, sort\_keys=True)**

# load Twitter API credentials

**with open('twitter\_credentials.json') as cred\_data:**

**info = json.load(cred\_data)**

**consumer\_key = info['CONSUMER\_KEY']**

**consumer\_secret = info['CONSUMER\_SECRET']**

**access\_key = info['ACCESS\_KEY']**

**access\_secret = info['ACCESS\_SECRET']**

**def get\_all\_tweets(user name):**

# Authorization

**auth = tweepy.OAuthHandler(consumer\_key, consumer\_secret)**

**auth.set\_access\_token(access\_key, access\_secret)**

**api = tweepy.API(auth)**

# initialization of a list to hold all Tweets

**all\_the\_tweets = []**

**new\_tweets = api.user\_timeline(username, count=300)**

**# saving the most recent tweets**

**all\_the\_tweets.extend(new\_tweets)**

# transforming tweets into a array that will be used to include in csv

**outtweets = [[tweet.id\_str, tweet.created\_at,**

**tweet.text.encode('utf-8')] for tweet in all\_the\_tweets]**

# writing to the csv file

**with open(username + '\_tweets.csv', 'w', encoding='utf8') as f:**

**writer = csv.writer(f)**

**writer.writerow(['id', 'created\_at', 'text'])**

**writer.writerows(outtweets)**

**if \_\_name\_\_ == '\_\_main\_\_':**

# call the function with twitter account name of an user whose tweets required – bcci

**get\_all\_tweets(bcci)**