Your program will save the file from the following URL and saves it to MSFT.csv

https://query1.finance.yahoo.com/v7/finance/download/MSFT?period1=1602613399&period2=1634149399&interval=1d&events=history&includeAdjustedClose=true

This is what the text of the first part of the file looks like

```
Date,Open,High,Low,Close,Adj Close,Volume
2020-10-13,222.720001,225.210007,220.429993,222.860001,220.833633,28950800
2020-10-14,223.000000,224.220001,219.130005,220.860001,218.851807,23421700
2020-10-15,217.100006,220.360001,216.009995,219.660004,217.662735,22733100
2020-10-16,220.149994,222.289993,219.320007,219.660004,217.662735,26057900
2020-10-19,220.419998,222.300003,213.720001,214.220001,212.272186,27625800
2020-10-20,215.800003,217.369995,213.089996,214.649994,212.698273,22753500
2020-10-21,213.119995,216.919998,213.119995,214.800003,212.846909,22724900
2020-10-22,213.929993,216.059998,211.699997,214.889999,212.936096,22351500
2020-10-23,215.029999,216.279999,213.160004,216.229996,214.263901,18879600
2020-10-26,213.850006,216.339996,208.100006,210.080002,208.169830,37111600
2020-10-27,211.589996,214.669998,210.330002,213.250000,211.311005,36700300
```

Then from the file it will print the opening price and closing price given a hardcoded date.

Your output should match this.

```
================ RESTART: C:/Users/brent/Desktop/Stock/Graph.py ================
Opening on 2020-11-06  was 222.259995
Closing on 2020-11-06  was 223.720001
>>>
```

To accomplish this, make the following 4 functions.

Write a function getFile(url, newFileName)

url: is a string containing the url of a file

newFileName: is a string of what the new file should be named

It should check to see if there is a file in the current directory with the name in the variable newFileName.

If there is delete it.

Then go to the url and download that file saving it in the current directory named whatever the string is in newFileName.

No return value.

Write a function readFile(fname)

fame: is a string of the file name to read from

This function should open a file in the current directory with the name stored in fname.

It should store each line of the file as a string into a list.

Return the list.

Write a function getClose(closeDate, stockList)

closeDate: is a string with a date in the format YYYY-MM-DD

stockList: is a list contain strings

the first string should be “Date,Open,High,Low,Close,Adj Close,Volume”

every string after should be data in the same order

This function should find a string on the given closeDate in stockList and return the Close value.

If there is no data for that date return “-1”.

Write a function getOpen(openDate, stockList)

openDate: is a string with a date in the format YYYY-MM-DD

stockList: is a list contain strings

the first string should be “Date,Open,High,Low,Close,Adj Close,Volume”

every string after should be data in the same order

This function should find a string on the given openDate in stockList and return the open value.

If there is no data for that date return “-1”.

File Help

import os

importurllib.request

os.path.exists(“myfilename.ext”) – returns true or false if a file exists with the name passed in as the parameter

os.remove(“myfilename.ext”) – removes a file with the name passed in as the parameter

urllib.request.urlretrieve(“www.website.com/file.txt”, “newFile.txt”) – goes to the first parameter as a url and retrieves the file there. Then it saves it as the string in the second parameter.

Splitting a string

You can split a string into a list separating on any value. The following example spits on commas.

```
myString = "abc,def,xyz"

myList = myString.split(',')

print(myList)
```

Output:

```
['abc', 'def', 'xyz']
```

Name your program stock1.py and submit it to moodle when finished.

Grading Each function is worth up to 5 points, with an additional 5 points for turning in a program that compiles and runs and 5 points for it working as a whole and the output correct, for a total of 30 points, as shown in the following criteria:

Header, compiles, and runs	5
Function readFile()	5
Function	5
Function	5
Function	5
Correct output for any given date in file	5