In [2]:
```
import pandas as pd

print(pd.__version__)
```

```
1.3.4
```

In [4]:
```
###1Reading a text from file###

def file_read(fname):
        txt = open(fname)
        print(txt.read())

file_read('D:\\v2.txt')
```

```
a piece of writing in which the expression of feelings and ideas is given intensity by particular attention to
diction (sometimes involving rhyme), rhythm, and imagery.
```

In [ ]:
```
###Read the first n lines of a file. ###
i=int(input())
a=('D:\\text2.txt')
b=open(a,'r')
for x in range(i):
  print(b.readline())
```

In [16]:
```
###Append text to a file and display the text###
def file_read(fname):
        from itertools import islice
        with open(fname, "w") as myfile:
                myfile.write("CSE Exercises\n")
                myfile.write("Module 3 Exercises")
        txt = open(fname)
        print(txt.read())
file_read('D:\\v2.txt')
```

```
CSE Exercises
Module 3 Exercises
```

In [62]:
```
###Read numbers from a file and write even and odd numbers to separate files.###
a=('D:\\text3.txt')
b=open(a,'r')
e=open('Even.txt','w')
o=open('Odd.txt','w')
e.write('Even:\n')
o.write('Odd:\n')
for i in b:
  if int(i)%2==0:
    e=open('Even.txt','a')
    e.write(i)
  elif int(i)%2!=0:
    o=open('Odd.txt','a')
    o.write(i)
e.close()
o.close()
e=open('Even.txt','r')
print(e.read())
e.close()
o=open('Odd.txt','r')
print(o.read())
o.close()
```

```
Even:
2
4
6
8
0
10
12
124
46
58

Odd:
1
3
5
7
9
11
13
435
5
457
7
57
```

In [60]:
```
###Count characters, words and lines in a text file###
file = open("D:\\h2.txt", "r")

numberoflines = 0
numberofwords = 0
numberofcharacters = 0
for line in file:
  line = line.strip("\n")
##won't count \n as character

  words = line.split()
  numberoflines += 1
  numberofwords += len(words)
  numberofcharacters += len(line)

file.close()

print("lines:", numberoflines, "words:", numberofwords, "characters:", numberofcharacters)
```

```
lines: 5 words: 47 characters: 244
```

In [32]:
```
###To write a list to a file.###
names = ["Pavan","18","Gitam"]


with open(r'D:\\v2.txt', 'w') as fp:   #write mode
    for item in names:
        fp.write("%s\n" % item)# write each item on a new line
    print('Done')
def file_read(fname):
    txt = open(fname)
    print(txt.read())

file_read('D:\\v2.txt')
```

```
Done
Pavan
18
Gitam
```

In [44]:
```
###Given a CSV file or excel file to read it into a dataframe and display it.###
import pandas as pd

data = pd.read_csv("D:\\Book1.csv")

data.head()
data[:11]
```

Out[44]:

	S.no	Name	Age	Gender	PH.No	Address
0	1	Pavan	18	M	499394939	Visakhapatanam,Maddilapalem
1	2	Sugreev	18	M	323232344	Visakhapatanam,Hb colony
2	3	Aditya	19	M	234234342	Visakhapatanam,Pendhurthy
3	4	Tushar	18	M	423423423	Visakhapatanam,CMR
4	5	Sanjay	19	M	246854726	Visakhapatanam,Gajuwaka
5	6	Heamanth	19	M	546546546	Visakhapatanam,Sethamadhara
6	7	Harsha	18	M	846849849	Visakhapatanam,Pendurthy
7	8	Saketh	19	M	654646498	Visakhapatanam,Muralinagar
8	9	Nikhilesh	19	M	564654646	Visakhapatanam,Ramnagar
9	10	Harshith	18	M	976543213	Visakhapatanam,Sethamadhara

In [43]:
```
###Given a dataframe, select rows based on a condition.###
import pandas as pd
import numpy as np
df = pd.DataFrame()
df['Name'] = ['John', 'Doe', 'Bill','Jim','Harry','Ben']
df['TotalMarks'] = [82, 38, 63,22,55,40]
df['Grade'] = ['A', 'E', 'B','E','C','D']
df['Promoted'] = [True, False,True,False,True,True]
df[:7]
```

Out[43]:

	Name	TotalMarks	Grade	Promoted
0	John	82	A	True
1	Doe	38	E	False
2	Bill	63	B	True
3	Jim	22	E	False
4	Harry	55	C	True
5	Ben	40	D	True

In [ ]:
```
###Given is a dataframe showing the name, occupation, salary of people. Find the average salary per occupation.
import pandas as pd
employees = pd.read_csv(r"D:\\Book1.csv")
departments = pd.read_csv(r"D:\\Book1.csv")
jobs = pd.read_csv(r"D:\\Book1.csv")
print("First name      Last name      Salary    Department ID")
result = employees[employees['first_name'].str[-1]=='m']
for index, row in result.iterrows():
    print(row['first_name'].ljust(15),row['last_name'].ljust(15),str(row['salary']).ljust(9),row['department_id
```

In [57]:
```
###To convert Python objects into JSON strings. Print all the values.###
import json
pythonobj = {
  "name": "Pavan",
  "class":"13",
  "age": 18
}
print(type(pythonobj))

jdata = json.dumps(pythonobj)

print(jdata)
```

```
<class 'dict'>
{"name": "Pavan", "class": "13", "age": 18}
```

In [59]:
```
###Write a Pandas program to read specific columns from a given excel file. ###
import pandas as pd
import numpy as np
cols = [1, 2, 4]
df = pd.read_excel('D:\\Book1.xlsx', usecols=cols)
df
```

Out[59]:

	Name	Age	PH.No
0	Pavan	18	499394939
1	Sugreev	18	323232344
2	Aditya	19	234234342
3	Tushar	18	423423423
4	Sanjay	19	246854726
5	Heamanth	19	546546546
6	Harsha	18	846849849
7	Saketh	19	654646498
8	Nikhilesh	19	564654646
9	Harshith	18	976543213