Experiment No: 4a

Date:

Aim: To read different types of Data sets(.txt,.csv) from Web and disk and writing in file in specific disk location.

Requirements: Sample .txt file, Sample .csv file.

- **READING A (.TXT) FILE :**

Procedure:

1 Create a sample .txt or It can be downloaded from the web. Upload it in Jupyter notebook and read the file.

For Example: Sample .txt

It contains:

Data science is the study of data to extract meaningful insights for business. It is a multidisciplinary approach that combines principles and practices from the fields of mathematics, statistics, artificial intelligence, and computer engineering to analyze large amounts of data.

Program Code:

In [2]:
```
# read text file
with open('Sample.txt','r') as f:
    print(f.read())
```

```
Data science is the study of data to extract meaningful insights for business.
It is a multidisciplinary approach that combines principles and practices from the fields of mathematics, statistics, artificia
l intelligence, and computer engineering to analyze large amounts of data.
```

In [3]:
```
#read text file
with open('Sample.txt','r') as f:
    print(f.readline())
```

```
Data science is the study of data to extract meaningful insights for business.
```

In [4]:
```
with open('Sample.txt','r') as f:
    print(f.readlines())
```

```
['Data science is the study of data to extract meaningful insights for business. \n', 'It is a multidisciplinary approach that
combines principles and practices from the fields of mathematics, statistics, artificial intelligence, and computer engineering
to analyze large amounts of data.']
```

❖ **READING A CSV FILE:**

Procedure:

**Download sample csv file from the web. Upload it in Jupyter Notebook and read .csv file.

For example: Create Products.csv

Id, Product, Price

1, Pen, 10

2, Pencil, 5

3, Eraser, 2

4, Notebook, 40

5, Stapler, 60

Program Code:

```
In [5]: import pandas as pd
        #read csv file into a dataframe
        df=pd.read_csv('Products.csv')
        #displaying DataFrame
        print(df)
```

```
   Id   Product  Price
0   1       Pen     10
1   2    Pencil      5
2   3    Eraser      2
3   4  Notebook     40
4   5   Stapler     60
```

Result: Hence, the .txt,.csv files that are loaded from the web are read using python, Jupyter Notebook

Experiment No: 4b

Date:

Aim: To read Excel files using Python

Requirements: Jupyter Notebook

Procedure:

Download Sample Excel sheet from the web. Then upload it in the Jupyter Notebook and perform the operations to read the excel file.

For Example: world.xlsx

Program Code:

```
In [3]: import pandas as pd
        #read excel file into a dataFrame
        df=pd.read_excel('world.xlsx')
        #print values
        print(df)
```

```
   0 First Name  Last Name  Gender        Country  Age        Date    Id
0  1      Dulce      Abril  Female  United States   32  15/10/2017  1562
1  2       Mara  Hashimoto  Female  Great Britain   25  16/08/2016  1582
2  3     Philip       Gent    Male         France   36  21/05/2015  2587
3  4   Kathleen     Hanner  Female  United States   25  15/10/2017  3549
4  5    Nereida    Magwood  Female  United States   58  16/08/2016  2468
5  6     Gaston      Brumm    Male  United States   24  21/05/2015  2554
6  7       Etta       Hurn  Female  Great Britain   56  15/10/2017  3598
7  8    Earlean     Melgar  Female  United States   27  16/08/2016  2456
8  9   Vincenza    Weiland  Female  United States   40  21/05/2015  6548
```

```
In [4]: xl=pd.ExcelFile('world.xlsx')
        xl.sheet_names
```

```
Out[4]: ['Sheet1']
```

```
In [7]: df=pd.read_excel('world.xlsx')
        df
```

Out[7]:

	0	First Name	Last Name	Gender	Country	Age	Date	Id
0	1	Dulce	Abril	Female	United States	32	15/10/2017	1562
1	2	Mara	Hashimoto	Female	Great Britain	25	16/08/2016	1582
2	3	Philip	Gent	Male	France	36	21/05/2015	2587
3	4	Kathleen	Hanner	Female	United States	25	15/10/2017	3549
4	5	Nereida	Magwood	Female	United States	58	16/08/2016	2468
5	6	Gaston	Brumm	Male	United States	24	21/05/2015	2554
6	7	Etta	Hurn	Female	Great Britain	56	15/10/2017	3598
7	8	Earlean	Melgar	Female	United States	27	16/08/2016	2456
8	9	Vincenza	Weiland	Female	United States	40	21/05/2015	6548

Result: Hence, The excel file is read using Python