

Practical 27

Python Program demonstrate following :

- Read content of text file using uploading, streaming and sampling methods from "Colors.txt" file
- Read Content of CSV file
- Read data from Excel sheet

```
[4]: # uploading
with open("python.txt","r") as f:
    print(f.read())
```

Python: A Versatile Programming Language

Python is a popular high-level programming language known for its simplicity and readability. Guido van Rossum released Python in 1991, and it has since gained a massive following in various fields, including web development, data analysis, artificial intelligence, and more.

Key Features of Python:

1. ****Readability****: Python emphasizes clean and readable code. Its syntax is designed to be straightforward and concise, making it an excellent choice for beginners and seasoned developers alike.
2. ****Versatile****: Python is a versatile language that can be used for a wide range of applications. It excels in web development, automation, scientific computing, data analysis, and machine learning.
3. ****Large Standard Library****: Python's standard library includes a wealth of modules and libraries to simplify common programming tasks. This extensive library makes Python an efficient choice for various projects.
4. ****Open Source****: Python is open-source software, which means it is freely available and can be modified by anyone. The Python community actively contributes to its development.

```
[5]: with open("python.txt") as file:
      for observ in file:
          print(observ)
```

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```
[7]: with open("python.txt") as file:
      for j, observ in enumerate(file):
          print(f"Sample {j}: {observ}")
```

Sample 0: Python: A Versatile Programming Language

Sample 1:

Sample 2: Python is a popular high-level programming language known for its simplicity and readability. Guido van Rossum released Python in 1991, and it has since gained a massive following in various fields, including web development, data analysis, artificial intelligence, and more.

Sample 3:

Sample 4: Key Features of Python:

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Sample 6: 2. ****Versatile****: Python is a versatile language that can be used for a wide range of applications. It excels in web development, automation, scientific computing, data analysis, and machine learning.

Sample 7: 3. ****Large Standard Library****: Python's standard library includes a wealth of modules and libraries to simplify common programming tasks. This extensive library makes Python an efficient choice for various projects.

Sample 8: 4. ****Open Source****: Python is open-source software, which means it is freely available and can be modified by anyone. The Python community actively contributes to its development.

```
[8]: import pandas as pd
df = pd.read_csv("animals.csv")
df
```

```
[8]:
```

	Name	Species	Color	Legs
0	Fido	Dog	Brown	4
1	Whiskers	Cat	Gray	4
2	Nemo	Fish	Orange	0
3	Tweety	Bird	Yellow	2
4	Simba	Lion	Golden	4
5	Dumbo	Elephant	Gray	4
6	Rex	Dinosaur	Green	2

```
[10]: df = pd.read_excel("first.xlsx")
df
```

```
[10]:
```

	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