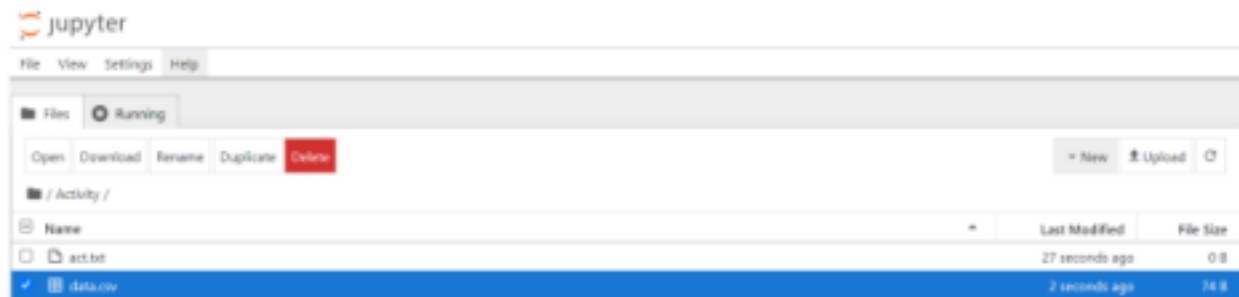
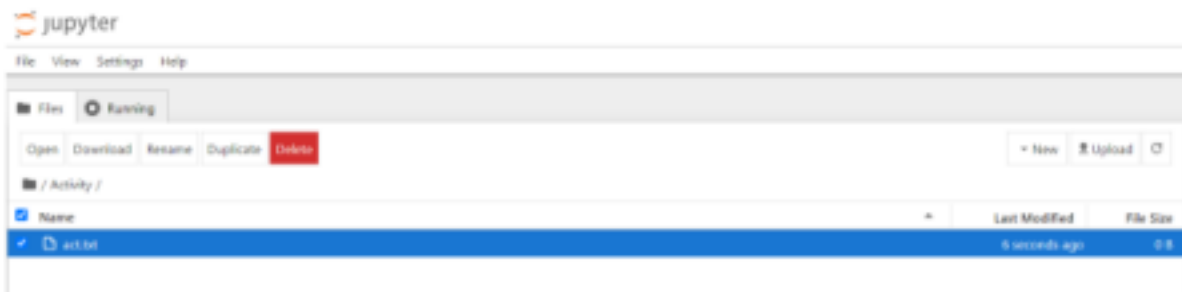
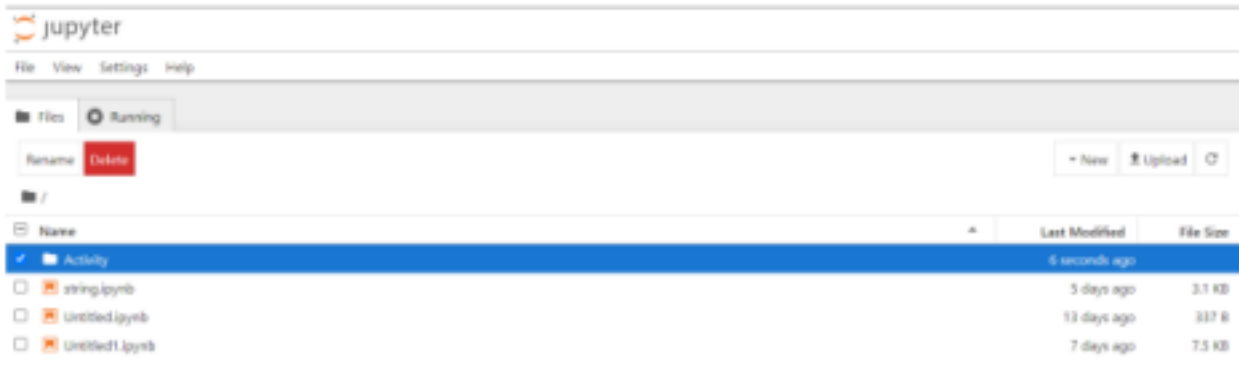


Alexis S Ilogon CS3C



Adding Folder

Adding Text file

CSV file for data analysis and visualization

jupyter Untitled Last Checkpoint: 7 minutes ago

File Edit View Run Kernel Settings Help Trusted

JupyterLab Python 3 (ipykernel)

```
[1]: sample_dict = {
    'Name': ['Alice', 'Bob', 'Charlie', 'David'],
    'Age': [25, 30, 35, 40],
    'City': ['New York', 'Los Angeles', 'Chicago', 'Houston'],
    'Occupation': ['Engineer', 'Teacher', 'Doctor', 'Artist']
}
print(sample_dict)

{'Name': ['Alice', 'Bob', 'Charlie', 'David'], 'Age': [25, 30, 35, 40], 'City': ['New York', 'Los Angeles', 'Chicago', 'Houston'], 'Occupation': ['Engineer', 'Teacher', 'Doctor', 'Artist']}
```

```
[2]: name = sample_dict['Name']
print(name)

['Alice', 'Bob', 'Charlie', 'David']
```

```
[3]: my_dict = sample_dict.copy()
print(my_dict)

{'Name': ['Alice', 'Bob', 'Charlie', 'David'], 'Age': [25, 30, 35, 40], 'City': ['New York', 'Los Angeles', 'Chicago', 'Houston'], 'Occupation': ['Engineer', 'Teacher', 'Doctor', 'Artist']}
```

jupyter Untitled Last Checkpoint: yesterday

File Edit View Run Kernel Settings Help Trusted

JupyterLab Python 3 (ipykernel)

```
'City': ['New York', 'Los Angeles', 'Chicago', 'Houston'],
'Occupation': ['Engineer', 'Teacher', 'Doctor', 'Artist']
}
age = sample_dict['Age']
print(age)

['A': None, 'g': None, 'a': None]
```

```
[1]: import os

# Specify the path for the new directory
directory = 'directory_sample'

# Check if the directory already exists
if not os.path.exists(directory):
    # Create the directory
    os.makedirs(directory)
    print("Directory created successfully.")
else:
    print("Directory already exists.")

Directory created successfully.
```

	Name	Date modified	Type	Size
Quick access				
Desktop	.ipynb_checkpoints	15/04/2024 5:13 pm	File folder	
Downloads	directory_sample	16/04/2024 9:22 pm	File folder	
Documents	act.txt	15/04/2024 5:11 pm	Text Document	0 KB
Pictures	data.csv	15/04/2024 5:11 pm	Microsoft Excel Co...	1 KB
CPE2	datadic.csv	16/04/2024 9:18 pm	Microsoft Excel Co...	1 KB
	Untitled.ipynb	16/04/2024 9:22 pm	Jupyter Source File	4 KB

- To write and call dictionary methods.
- To create a directory using jupyter notebook.
- To import libraries

```
[1]: !pip install pandas

Defaulting to user installation because normal site-packages is not writeable
Collecting pandas
  Downloading pandas-2.2.2-cp312-cp312-win_amd64.whl.metadata (19 kB)
Collecting numpy=>1.26.0 (from pandas)
  Downloading numpy-1.26.4-cp312-cp312-win_amd64.whl.metadata (61 kB)
----- 0.0/61.0 kB ? eta -[>]
----- 0.0/61.0 kB ? eta -[>]
----- 30.2/61.0 kB ? eta -[>]
----- 30.7/61.0 kB 330.3 kB/s eta 0:00:01
----- 30.7/61.0 kB 330.3 kB/s eta 0:00:01
----- 41.0/61.0 kB 375.6 kB/s eta 0:00:01
----- 61.0/61.0 kB 233.0 kB/s eta 0:00:00
Requirement already satisfied: python-dateutil=>2.8.2 in c:\users\arata\appdata\local\packages\pythonsoftwarefoundation.python.3.12_gbcfe2kfrw8p0\loc
alcache\local-packages\python312\site-packages (from pandas) (2.9.0.post0)
Collecting pytz=>2024.1 (from pandas)
  Downloading pytz-2024.1-py2.py3-none-any.whl.metadata (22 kB)
Collecting tzdata=>2023.7 (from pandas)
  Downloading tzdata-2024.1-py2.py3-none-any.whl.metadata (1.4 kB)

[1]:

File Edit View Run Kernel Settings Help Trusted
[2]: import os

# Specify the path for the new directory
directory = 'directory_sample'

# Check if the directory already exists
if not os.path.exists(directory):
    # Create the directory
    os.makedirs(directory)
    print("Directory created successfully.")
else:
    print("Directory already exists.")

Directory created successfully.

[3]: import pandas as pd
pd.__version__

[4]: '2.2.2'

[5]:

Directory created successfully.

[4]: import pandas as pd
pd.__version__

[6]: '2.2.2'

[7]: #Import libraries needed
import pandas as pd
pd.__version__

df = pd.read_csv('dataadic.csv')
```

To import libraries
To use CSV file for data
analysis and visualization

```
[13]: import pandas as pd
import matplotlib.pyplot as plt

# Replace 'data.csv' with the actual path to your uploaded CSV file
file_path = 'data.csv'

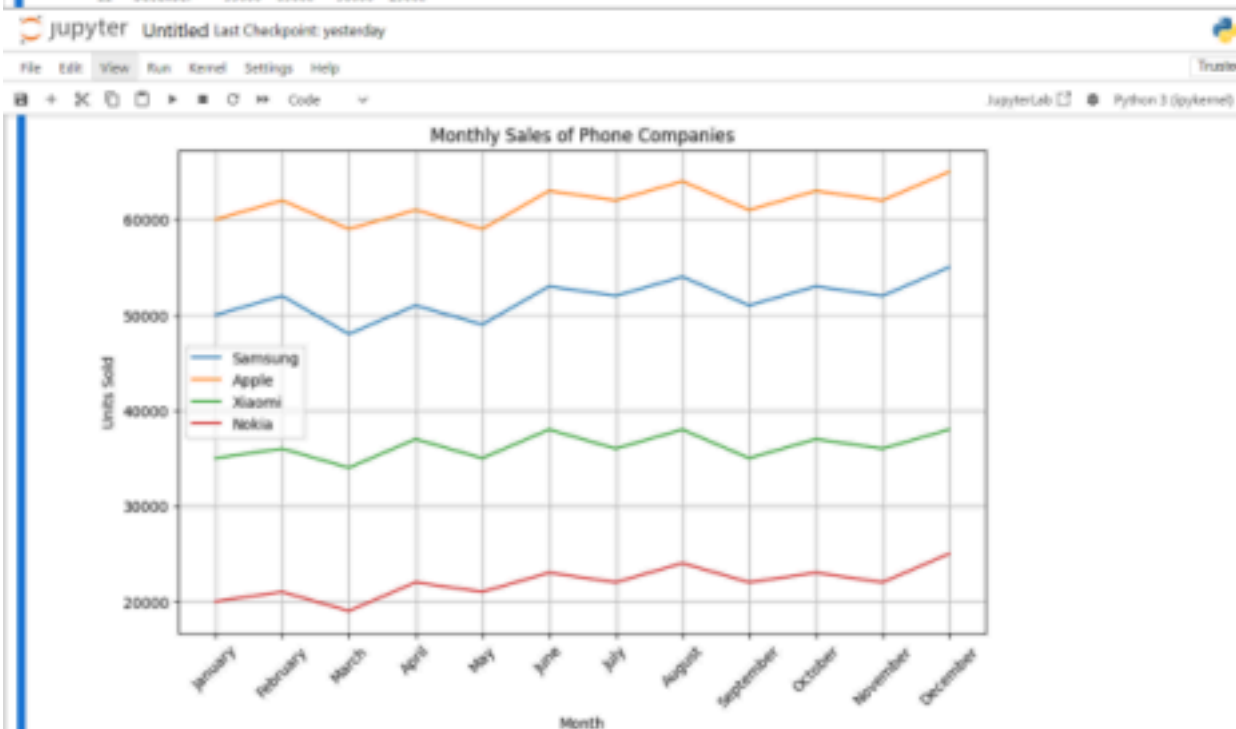
# Read the CSV file into a DataFrame
df = pd.read_csv(file_path)

# Display the DataFrame
print("Sales Data:")
print(df)

# Plot the sales data
plt.figure(figsize=(10, 6))
for company in df.columns[1:]:
    plt.plot(df['Month'], df[company], label=company)
plt.title('Monthly Sales of Phone Companies')
plt.xlabel('Month')
plt.ylabel('Units Sold')
plt.legend()
plt.xticks(rotation=45)
plt.grid(True)
plt.show()
```

Sales Data:

	Month	Samsung	Apple	Xiaomi	Nokia
0	January	50000	60000	35000	20000
1	February	52000	62000	36000	21000
2	March	48000	59000	34000	19000
3	April	51000	61000	37000	22000
4	May	49000	60000	35000	21000
5	June	53000	63000	38000	23000
6	July	52000	62000	36000	22000
7	August	54000	64000	39000	24000
8	September	51000	61000	35000	21000
9	October	53000	63000	37000	23000
10	November	52000	62000	36000	22000
11	December	55000	65000	38000	25000



```
File Edit View Run Kernel Settings Help Trusted
JupyterLab Python 3 (pykernel)

[1]: !pip install pandas

Defaulting to user installation because normal site-packages is not writeable
Collecting pandas
  Downloading pandas-2.2.2-cp312-cp312-win_amd64.whl.metadata (19 kB)
Collecting numpy<1.26.0 (from pandas)
  Downloading numpy-1.26.4-cp312-cp312-win_amd64.whl.metadata (81 kB)
----- 0.8/61.0 kB ? eta <---
----- 0.8/61.0 kB ? eta <---
----- 10.2/61.0 kB ? eta <---
----- 30.7/61.0 kB 330.3 kB/s eta 0:00:01
----- 30.7/61.0 kB 330.3 kB/s eta 0:00:01
----- 41.0/61.0 kB 378.6 kB/s eta 0:00:01
----- 61.0/61.0 kB 233.0 kB/s eta 0:00:00
Requirement already satisfied: python-dateutil<2.8.2 in c:\users\arata\appdata\local\packages\pythonsoftwarefoundation.python.3.12_qbz5n2kfra8p0\localcache\local-packages\python312\site-packages (from pandas) (2.9.0.post0)
Collecting pytz>=2020.1 (from pandas)
  Downloading pytz-2024.1-py2.py3-none-any.whl.metadata (22 kB)
Collecting tzdata>=2022.7 (from pandas)
  Downloading tzdata-2024.1-py2.py3-none-any.whl.metadata (1.4 kB)

[1]: !pip install matplotlib

Defaulting to user installation because normal site-packages is not writeable
Collecting matplotlib
  Downloading matplotlib-3.8.4-cp312-cp312-win_amd64.whl.metadata (5.9 kB)
Collecting contourpy>=1.0.1 (from matplotlib)
  Downloading contourpy-1.2.1-cp312-cp312-win_amd64.whl.metadata (5.8 kB)
Collecting cycler>=0.10 (from matplotlib)
  Downloading cycler-0.12.1-py3-none-any.whl.metadata (3.8 kB)
Collecting fonttools>=4.22.0 (from matplotlib)
  Downloading fonttools-4.51.0-cp312-cp312-win_amd64.whl.metadata (362 kB)
----- 0.8/162.0 kB ? eta <---
df = pd.read_csv('datadic.csv')

[12]: import pandas
      pandas.__version__
      import matplotlib
```

```
# Replace 'data.csv' with the actual path to your uploaded CSV file
file_path = 'datadic.csv'
```

```
# Replace 'data.csv' with the actual path to your uploaded CSV file
file_path = 'datadic.csv'
```

```
# Read the CSV file into a DataFrame
df = pd.read_csv(file_path)
```

Import libraries

Finding data

Importing data

Data attributes

```
[14]: import pandas as pd

      # Replace "data.csv" with the actual path to your uploaded CSV file
      file_path = "data.csv"

      # Read the CSV file into a DataFrame
      df = pd.read_csv(file_path)
      df.shape
```

```
[14]: (12, 5)
```