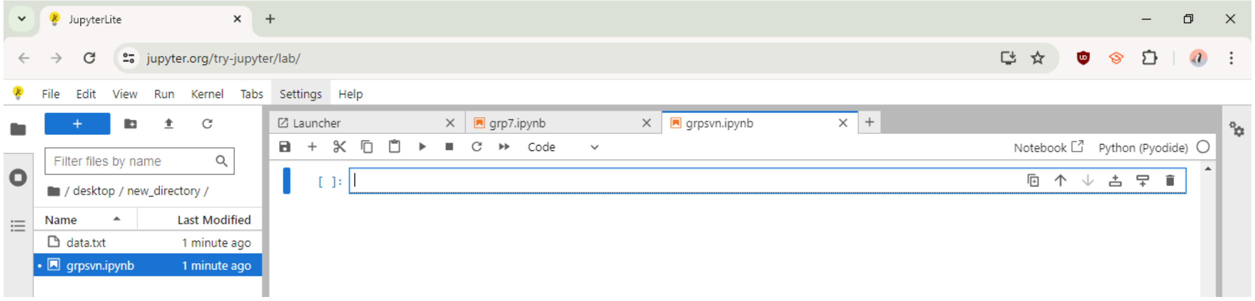
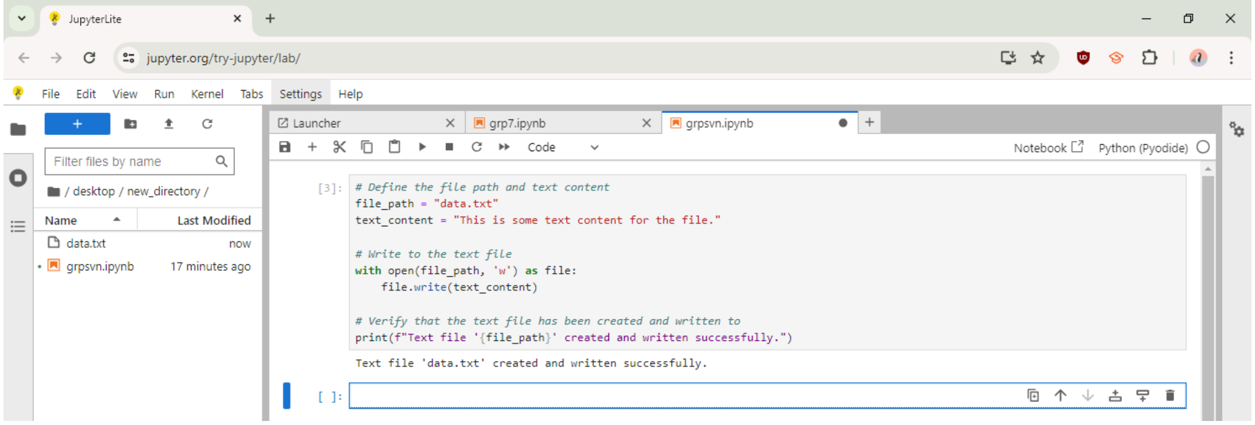
Jupyter Notebook Activity

- **Adding Folder:**


JupyterLite
jupyter.org/try-jupyter/lab/
File Edit View Run Kernel Tabs Settings Help
Launcher
grp7.ipynb
grpsvn.ipynb
Code
Notebook
Python (Pyodide)
Filter files by name
/ desktop / new_directory /
[ ]:

Name	Last Modified
data.txt	1 minute ago
grpsvn.ipynb	1 minute ago

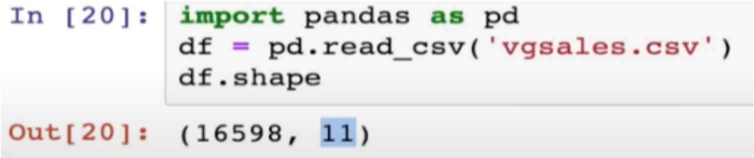
- **Adding Text file:**


JupyterLite
jupyter.org/try-jupyter/lab/
File Edit View Run Kernel Tabs Settings Help
Launcher
grp7.ipynb
grpsvn.ipynb
Code
Notebook
Python (Pyodide)
Filter files by name
/ desktop / new_directory /
[ ]:

Name	Last Modified
data.txt	now
grpsvn.ipynb	17 minutes ago

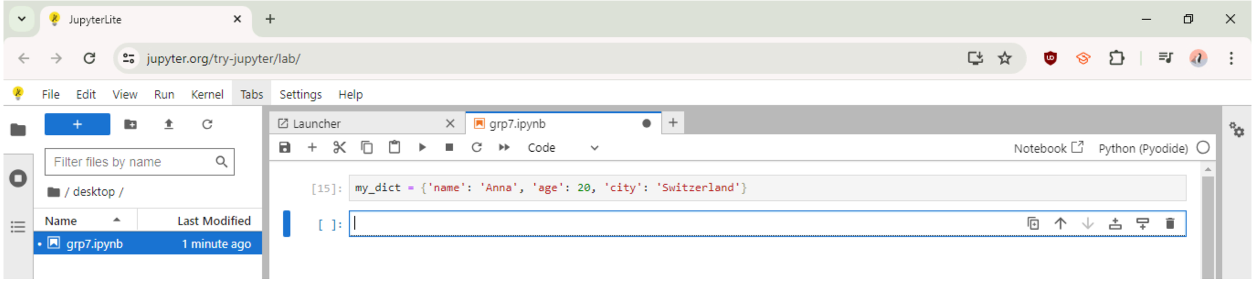
```
[3]: # Define the file path and text content
     file_path = "data.txt"
     text_content = "This is some text content for the file."

     # Write to the text file
     with open(file_path, 'w') as file:
         file.write(text_content)

     # Verify that the text file has been created and written to
     print(f"Text file '{file_path}' created and written successfully.")

     Text file 'data.txt' created and written successfully.
```

- **CSV file for data analysis and visualization:**



```
In [20]: import pandas as pd
         df = pd.read_csv('vgsales.csv')
         df.shape

Out[20]: (16598, 11)
```

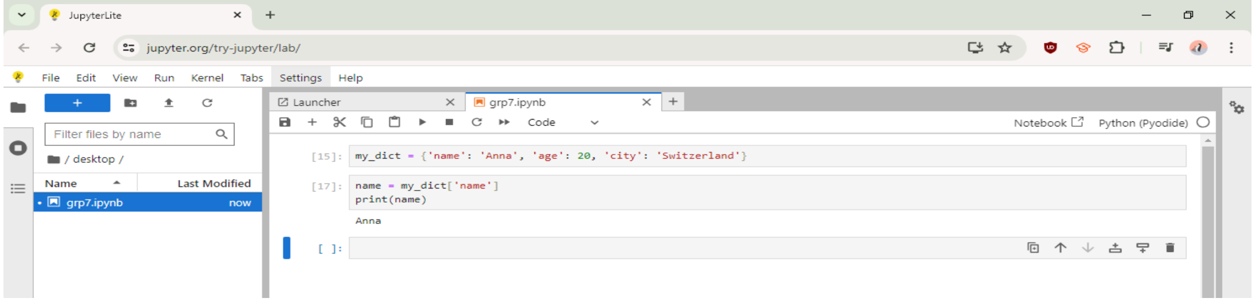
- **To write and call dictionary methods:**



Name	Last Modified
grp7.ipynb	1 minute ago

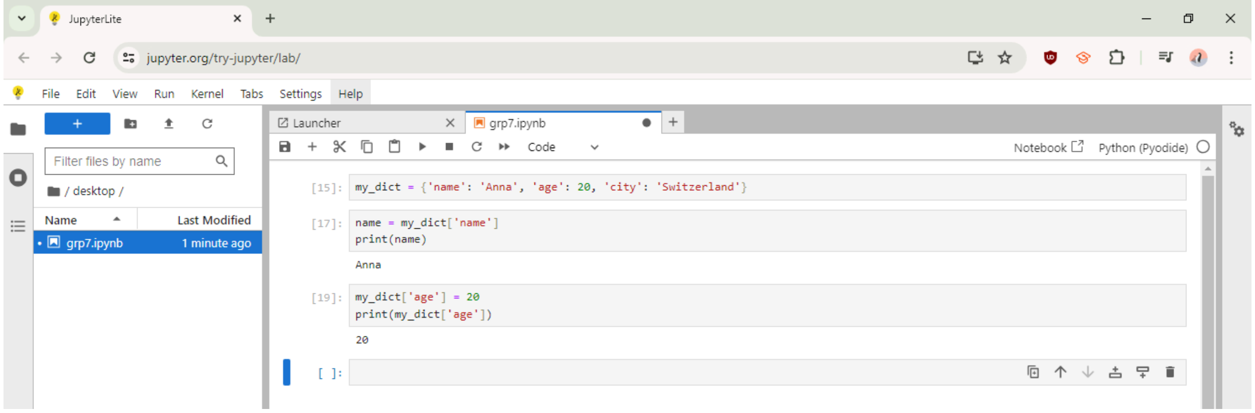
```
[15]: my_dict = {'name': 'Anna', 'age': 20, 'city': 'Switzerland'}
```

- ## Accessing Items in the Dictionary:



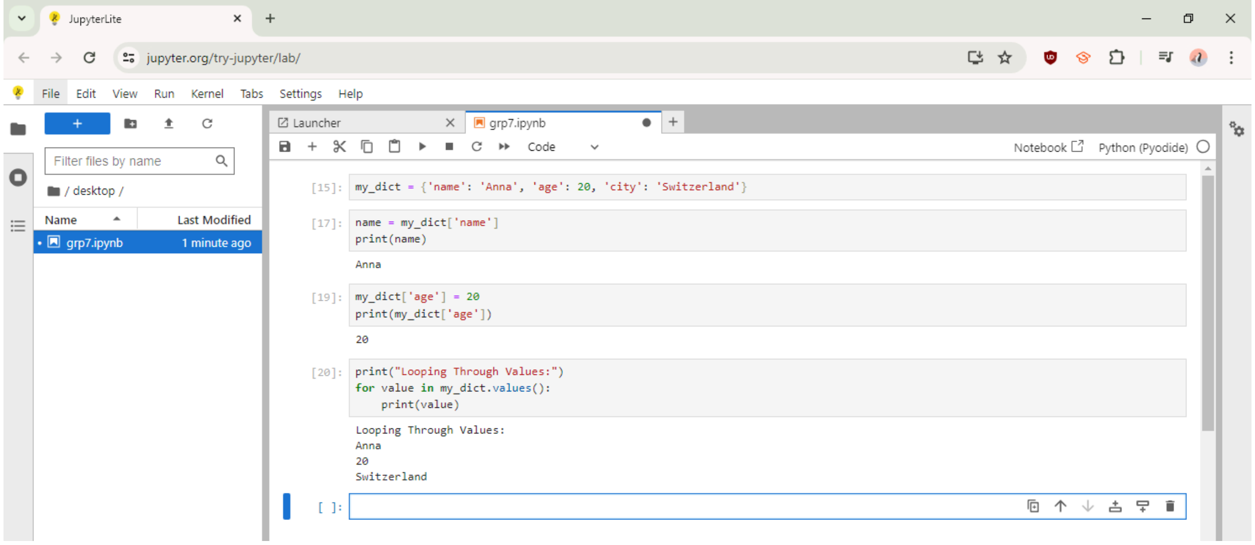
```
[15]: my_dict = {'name': 'Anna', 'age': 20, 'city': 'Switzerland'}

[17]: name = my_dict['name']
      print(name)

      Anna

[ ]:
```

- ## Change Values in the Dictionary:



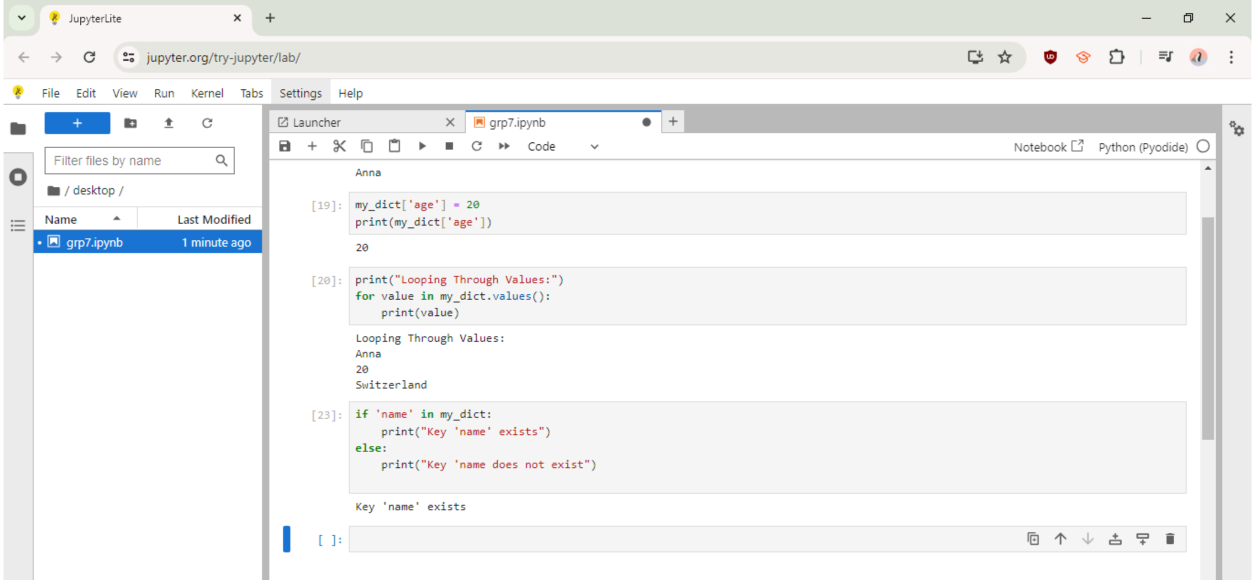
```
[15]: my_dict = {'name': 'Anna', 'age': 20, 'city': 'Switzerland'}

[17]: name = my_dict['name']
      print(name)

      Anna

[19]: my_dict['age'] = 20
      print(my_dict['age'])

      20

[ ]:
```

- ## Loop Through Dictionary Values:



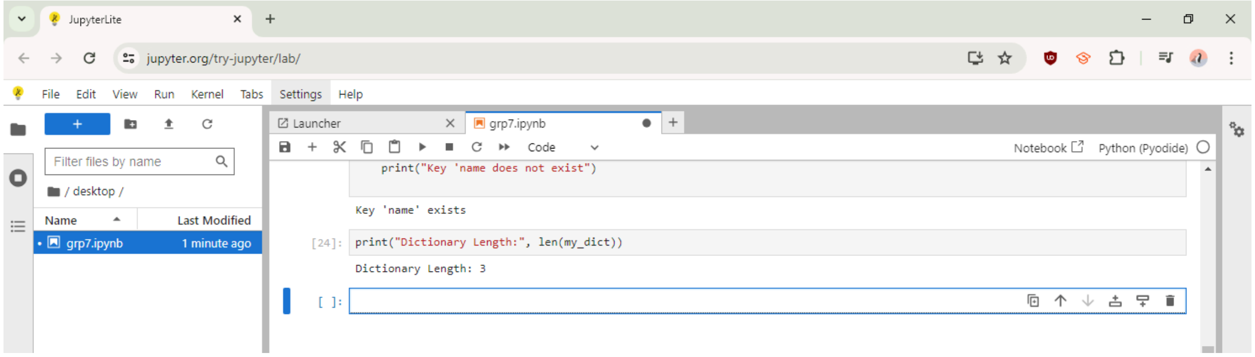
```
[15]: my_dict = {'name': 'Anna', 'age': 20, 'city': 'Switzerland'}

[17]: name = my_dict['name']
      print(name)

      Anna

[19]: my_dict['age'] = 20
      print(my_dict['age'])

      20

[20]: print("Looping Through Values:")
      for value in my_dict.values():
          print(value)

      Looping Through Values:
      Anna
      20
      Switzerland

[ ]:
```

- **Check if Key Exists in the Dictionary:**



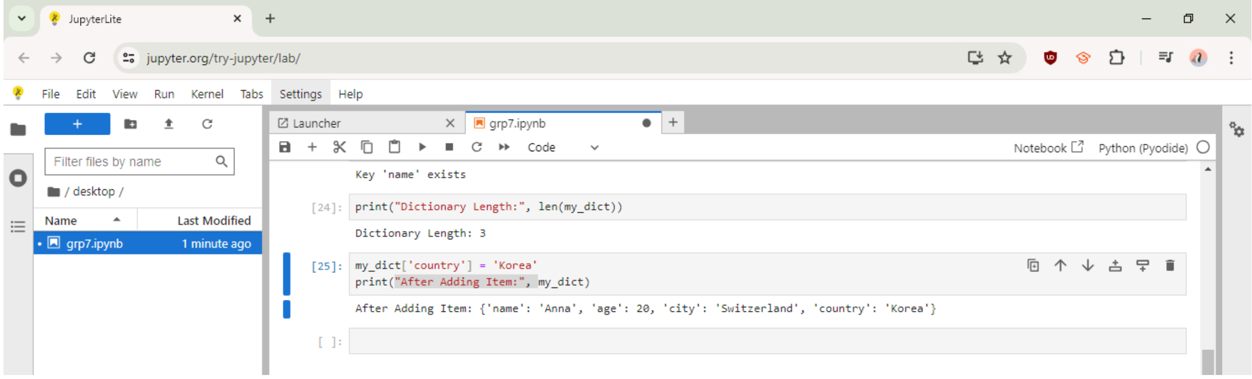
```
Anna

[19]: my_dict['age'] = 20
      print(my_dict['age'])

      20

[20]: print("Looping Through Values:")
      for value in my_dict.values():
          print(value)

      Looping Through Values:
      Anna
      20
      Switzerland

[23]: if 'name' in my_dict:
          print("Key 'name' exists")
      else:
          print("Key 'name does not exist")

      Key 'name' exists

[ ]:
```

- **Checking for Dictionary Length:**



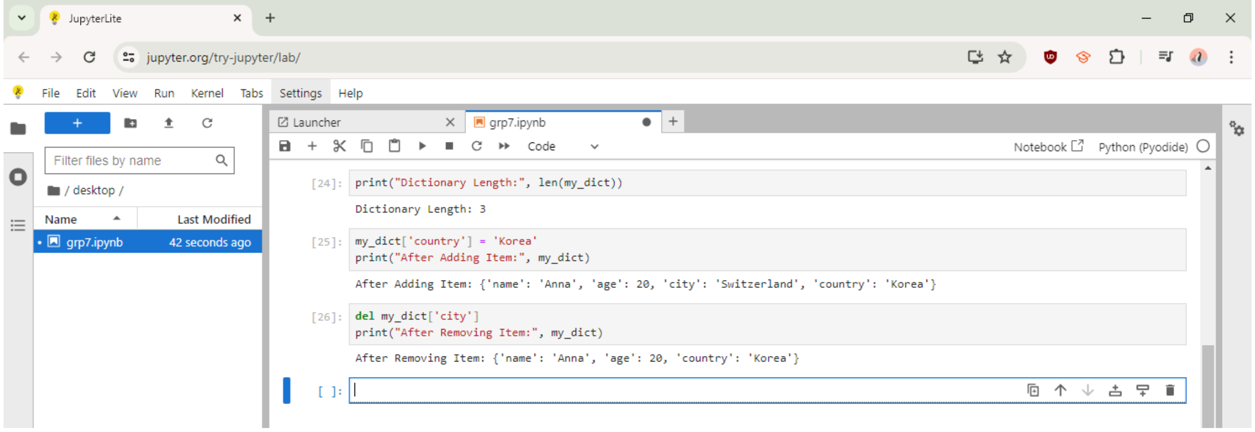
```
          print("Key 'name does not exist")

      Key 'name' exists

[24]: print("Dictionary Length:", len(my_dict))

      Dictionary Length: 3

[ ]:
```

- **Adding Items in the Dictionary:**



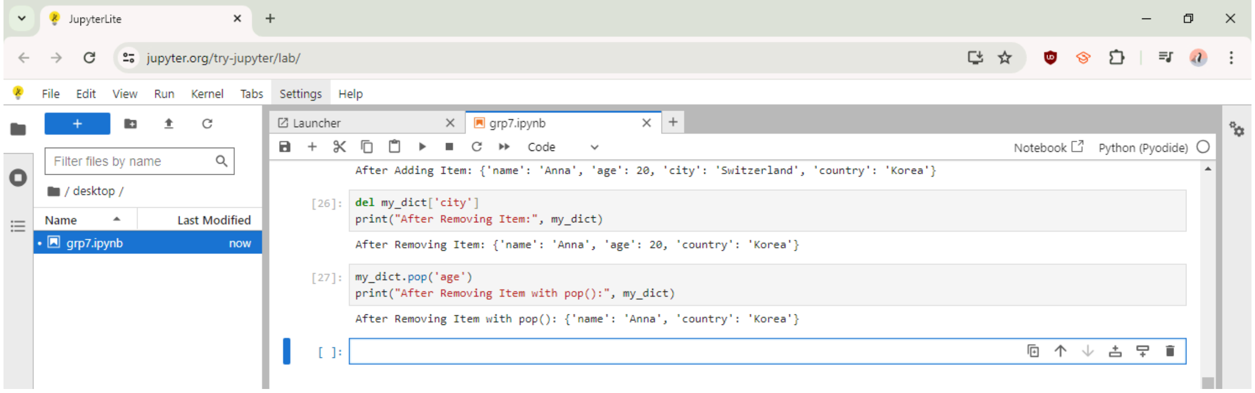
```
      Key 'name' exists

[24]: print("Dictionary Length:", len(my_dict))

      Dictionary Length: 3

[25]: my_dict['country'] = 'Korea'
      print("After Adding Item:", my_dict)

      After Adding Item: {'name': 'Anna', 'age': 20, 'city': 'Switzerland', 'country': 'Korea'}

[ ]:
```

- **Removing Items in the Dictionary:**



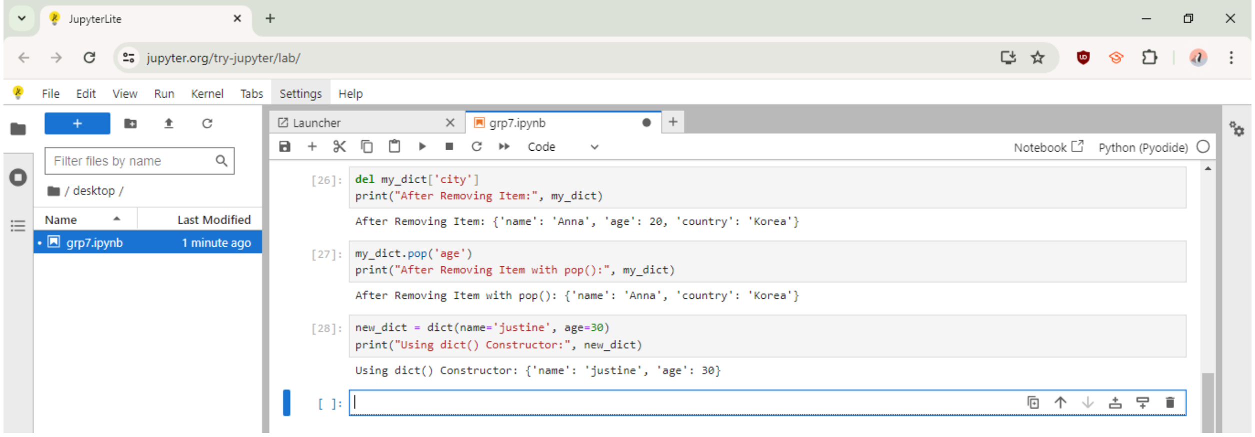
```
[24]: print("Dictionary Length:", len(my_dict))

      Dictionary Length: 3

[25]: my_dict['country'] = 'Korea'
      print("After Adding Item:", my_dict)

      After Adding Item: {'name': 'Anna', 'age': 20, 'city': 'Switzerland', 'country': 'Korea'}

[26]: del my_dict['city']
      print("After Removing Item:", my_dict)

      After Removing Item: {'name': 'Anna', 'age': 20, 'country': 'Korea'}

[ ]:
```

- **Remove an Item Using del Statement:**



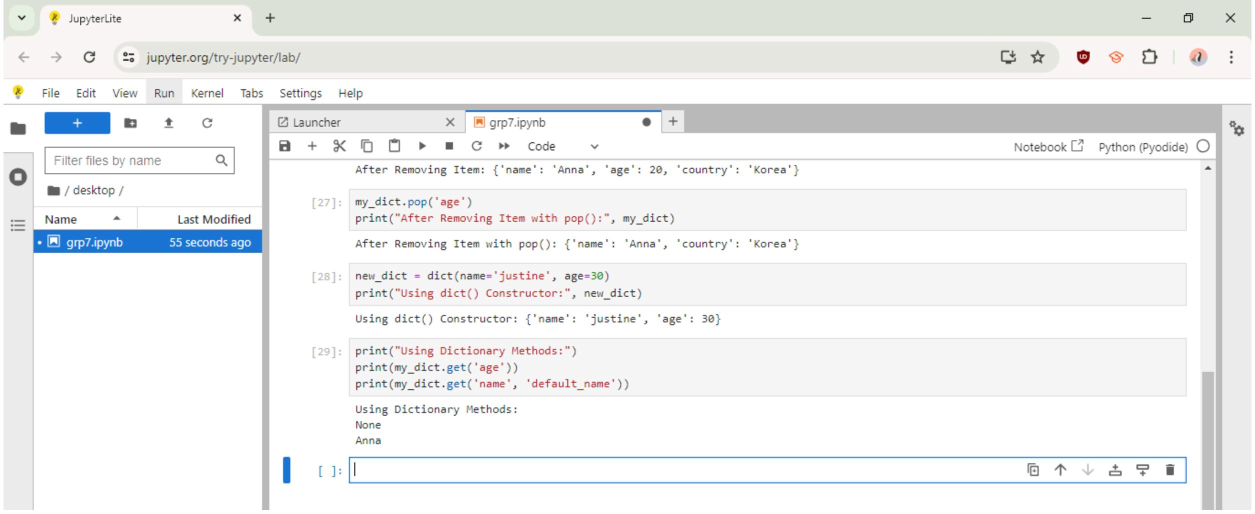
```
      After Adding Item: {'name': 'Anna', 'age': 20, 'city': 'Switzerland', 'country': 'Korea'}

[26]: del my_dict['city']
      print("After Removing Item:", my_dict)

      After Removing Item: {'name': 'Anna', 'age': 20, 'country': 'Korea'}

[27]: my_dict.pop('age')
      print("After Removing Item with pop():", my_dict)

      After Removing Item with pop(): {'name': 'Anna', 'country': 'Korea'}

[ ]:
```

- **The dict() Constructor:**



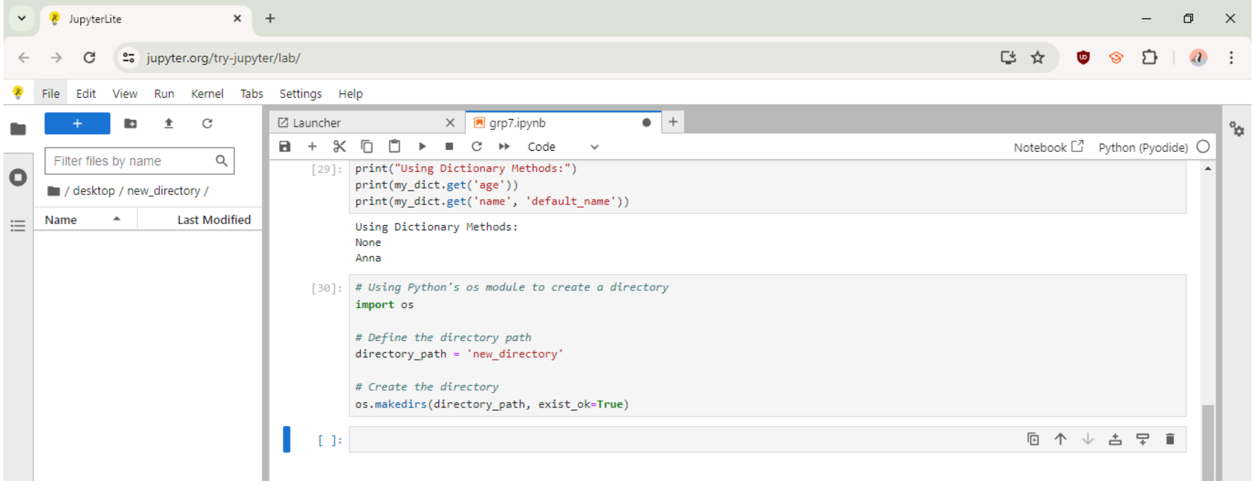
```
[26]: del my_dict['city']
      print("After Removing Item:", my_dict)

      After Removing Item: {'name': 'Anna', 'age': 20, 'country': 'Korea'}

[27]: my_dict.pop('age')
      print("After Removing Item with pop():", my_dict)

      After Removing Item with pop(): {'name': 'Anna', 'country': 'Korea'}

[28]: new_dict = dict(name='justine', age=30)
      print("Using dict() Constructor:", new_dict)

      Using dict() Constructor: {'name': 'justine', 'age': 30}

[ ]:
```

- **Dictionary Methods:**



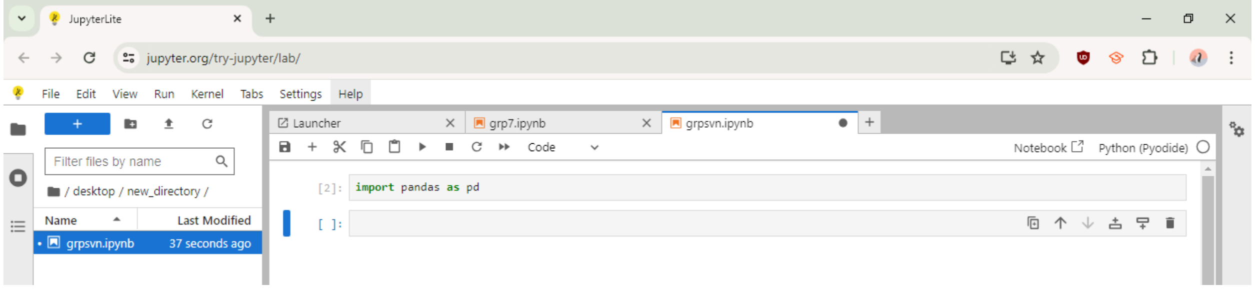
```
After Removing Item: {'name': 'Anna', 'age': 20, 'country': 'Korea'}

[27]: my_dict.pop('age')
      print("After Removing Item with pop():", my_dict)

      After Removing Item with pop(): {'name': 'Anna', 'country': 'Korea'}

[28]: new_dict = dict(name='justine', age=30)
      print("Using dict() Constructor:", new_dict)

      Using dict() Constructor: {'name': 'justine', 'age': 30}

[29]: print("Using Dictionary Methods:")
      print(my_dict.get('age'))
      print(my_dict.get('name', 'default_name'))

      Using Dictionary Methods:
      None
      Anna

[ ]:
```

- **To create a directory using jupyter notebook:**


JupyterLite
jupyter.org/try-jupyter/lab/
File Edit View Run Kernel Tabs Settings Help
Filter files by name
/ desktop / new_directory /
Name
Last Modified
Launcher
grp7.ipynb
Code
Notebook
Python (Pyodide)

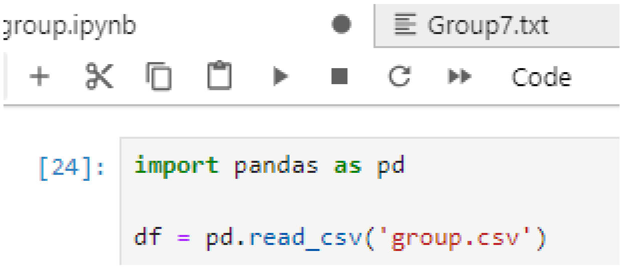
```
[29]: print("Using Dictionary Methods:")
      print(my_dict.get('age'))
      print(my_dict.get('name', 'default_name'))

      Using Dictionary Methods:
      None
      Anna

[30]: # Using Python's os module to create a directory
      import os

      # Define the directory path
      directory_path = 'new_directory'

      # Create the directory
      os.makedirs(directory_path, exist_ok=True)

[ ]:
```

- **To import libraries:**



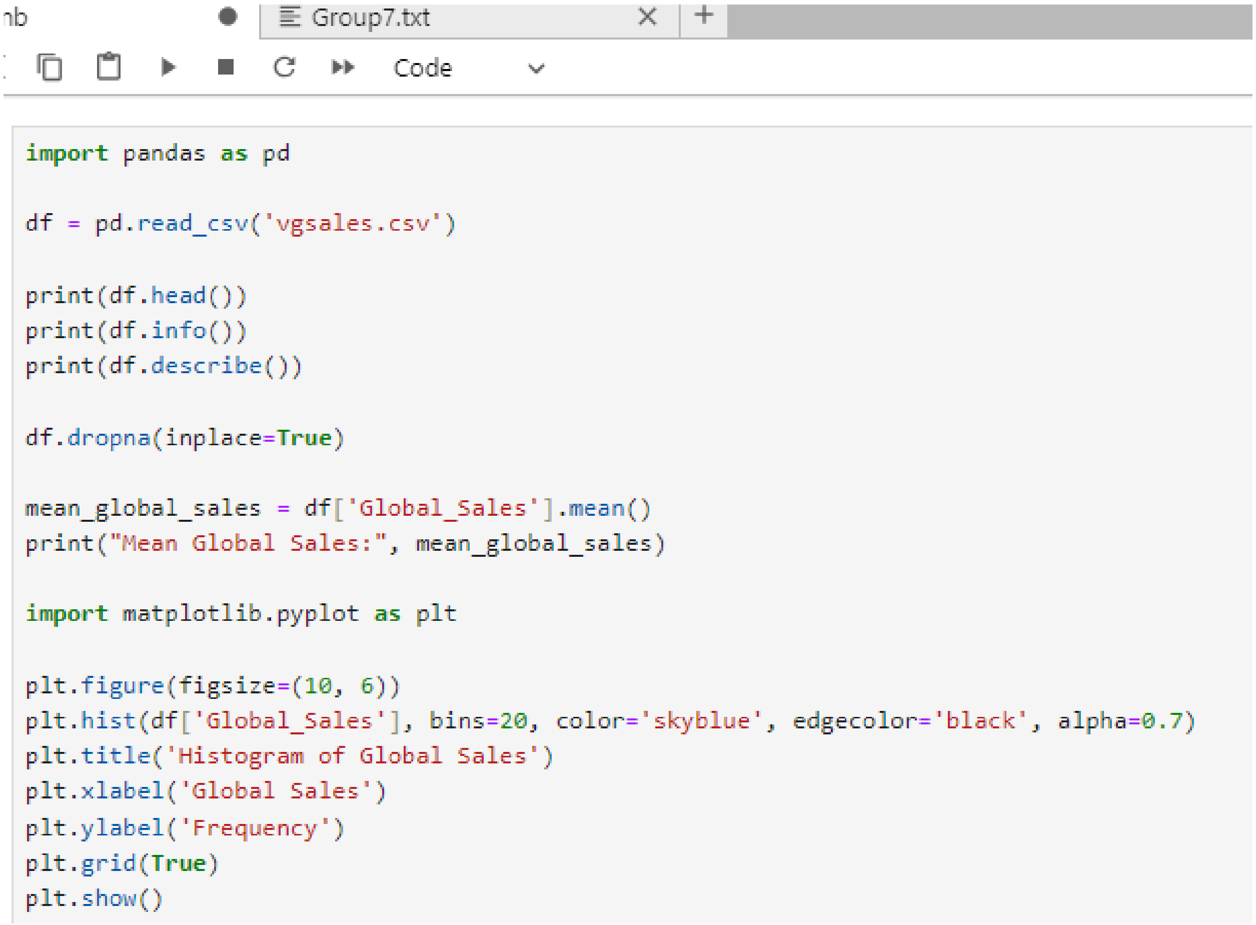
```
[2]: import pandas as pd

[ ]:
```

- **To use CSV file for data:**

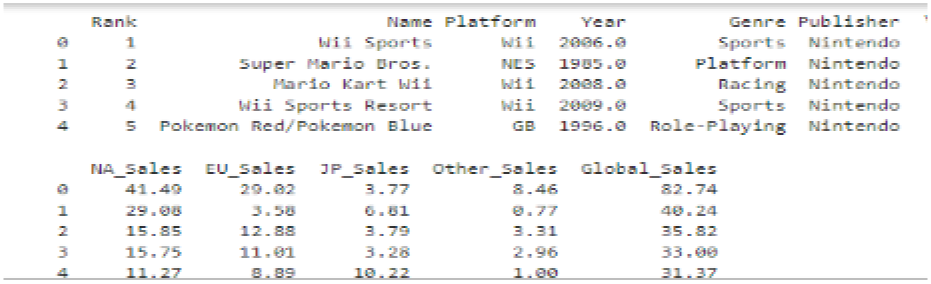


[24]:
```
import pandas as pd

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

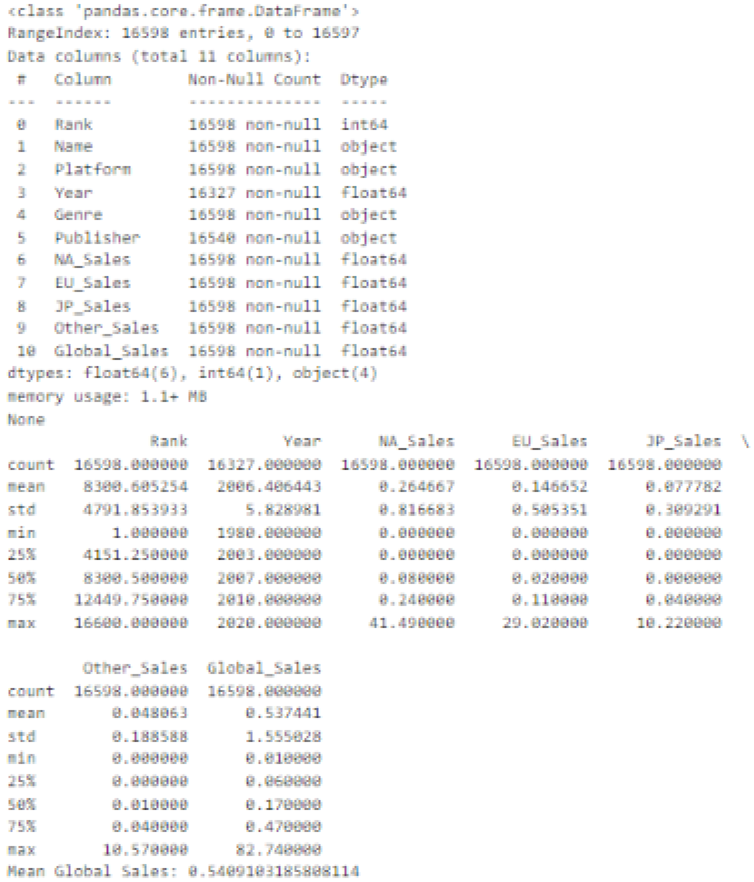
- **Analysis and visualization**



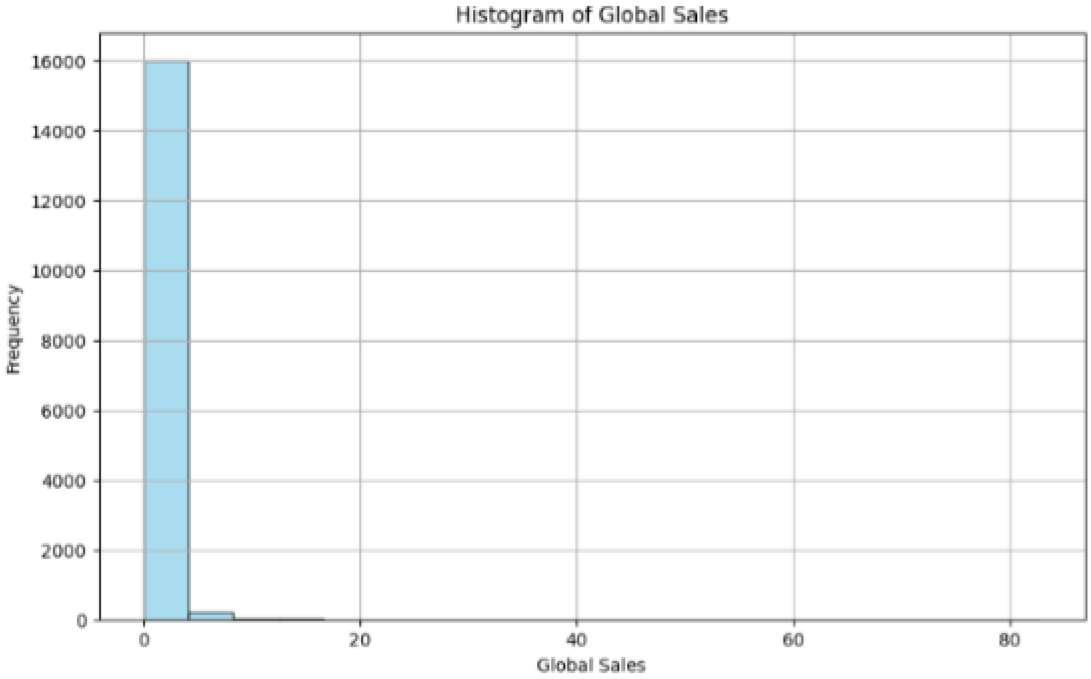
```
import pandas as pd

df = pd.read_csv('vgsales.csv')

print(df.head())
print(df.info())
print(df.describe())

df.dropna(inplace=True)

mean_global_sales = df['Global_Sales'].mean()
print("Mean Global Sales:", mean_global_sales)

import matplotlib.pyplot as plt

plt.figure(figsize=(10, 6))
plt.hist(df['Global_Sales'], bins=20, color='skyblue', edgecolor='black', alpha=0.7)
plt.title('Histogram of Global Sales')
plt.xlabel('Global Sales')
plt.ylabel('Frequency')
plt.grid(True)
plt.show()
```



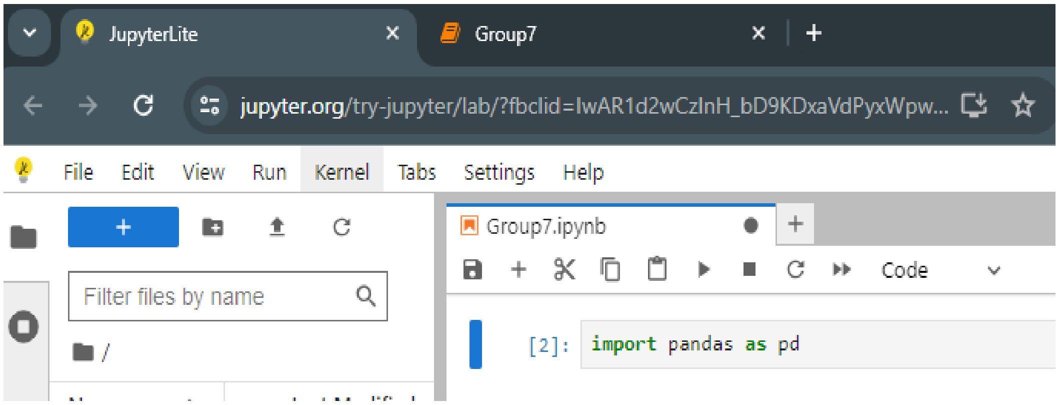
```
   Rank                      Name Platform    Year         Genre Publisher  \
0     1                Wii Sports      Wii  2006.0        Sports  Nintendo
1     2         Super Mario Bros.      NES  1985.0      Platform  Nintendo
2     3            Mario Kart Wii      Wii  2008.0        Racing  Nintendo
3     4         Wii Sports Resort      Wii  2009.0        Sports  Nintendo
4     5  Pokemon Red/Pokemon Blue       GB  1996.0  Role-Playing  Nintendo

   NA_Sales  EU_Sales  JP_Sales  Other_Sales  Global_Sales
0     41.49     29.02      3.77         8.46         82.74
1     29.08      3.58      6.81         0.77         40.24
2     15.85     12.88      3.79         3.31         35.82
3     15.75     11.01      3.28         2.96         33.00
4     11.27      8.89     10.22         1.00         31.37
```



```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 16598 entries, 0 to 16597
Data columns (total 11 columns):
 #   Column        Non-Null Count  Dtype  
---  ------        --------------  -----  
 0   Rank          16598 non-null  int64  
 1   Name          16598 non-null  object 
 2   Platform      16598 non-null  object 
 3   Year          16327 non-null  float64
 4   Genre         16598 non-null  object 
 5   Publisher     16540 non-null  object 
 6   NA_Sales      16598 non-null  float64
 7   EU_Sales      16598 non-null  float64
 8   JP_Sales      16598 non-null  float64
 9   Other_Sales   16598 non-null  float64
 10  Global_Sales  16598 non-null  float64
dtypes: float64(6), int64(1), object(4)
memory usage: 1.1+ MB
None
               Rank          Year      NA_Sales      EU_Sales      JP_Sales  \
count  16598.000000  16327.000000  16598.000000  16598.000000  16598.000000   
mean    8300.605254   2006.406443      0.264667      0.146652      0.077782   
std     4791.853933      5.828981      0.816683      0.505351      0.309291   
min        1.000000   1980.000000      0.000000      0.000000      0.000000   
25%     4151.250000   2003.000000      0.000000      0.000000      0.000000   
50%     8300.500000   2007.000000      0.080000      0.020000      0.000000   
75%    12449.750000   2010.000000      0.240000      0.110000      0.040000   
max    16600.000000   2020.000000     41.490000     29.020000     10.220000   

        Other_Sales  Global_Sales  
count  16598.000000  16598.000000  
mean       0.048063      0.537441  
std        0.188588      1.555028  
min        0.000000      0.010000  
25%        0.000000      0.060000  
50%        0.010000      0.170000  
75%        0.040000      0.470000  
max       10.570000     82.740000  
Mean Global Sales: 0.5409103185808114
```

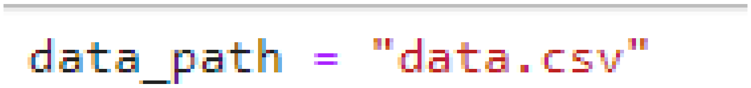


- **Import libraries**



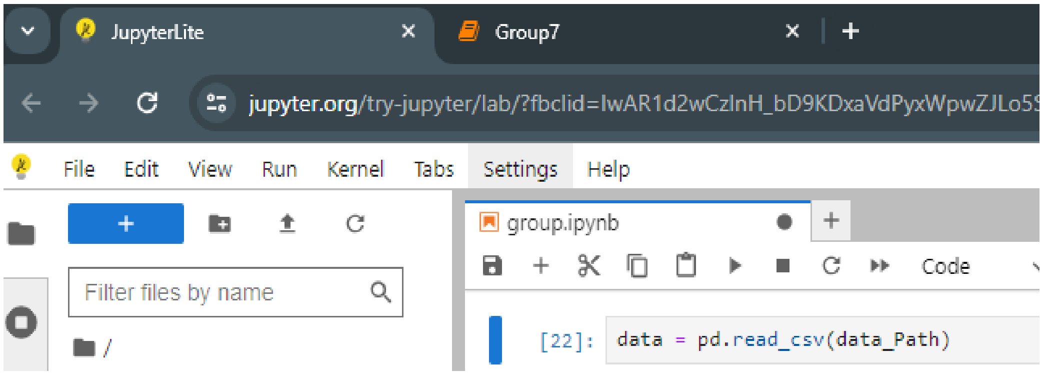
```
[2]: import pandas as pd
```

- **Finding data**



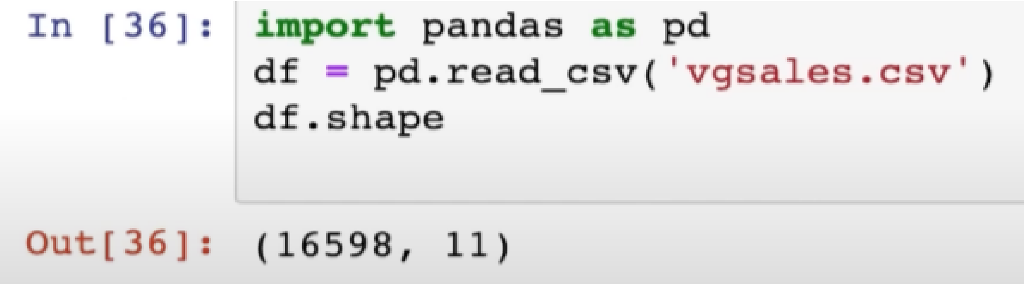
```
data_path = "data.csv"
```

- **Importing data**



```
[22]: data = pd.read_csv(data_Path)
```

- **Data attributes**



```
In [36]: import pandas as pd
         df = pd.read_csv('vgsales.csv')
         df.shape

Out[36]: (16598, 11)
```

Group 7 Members:

Carange, Ansthrea

Leanillo, Herbert

Lopez, Katricia

Madlangsakay, Remo

Tiqui, Liezel