

## Gerald Blackwell

### 3.5 Guided Practice Pandas and Charting

The screenshot shows two windows side-by-side. The left window is a code editor for 'pandasAndCharting.py' containing the following code:

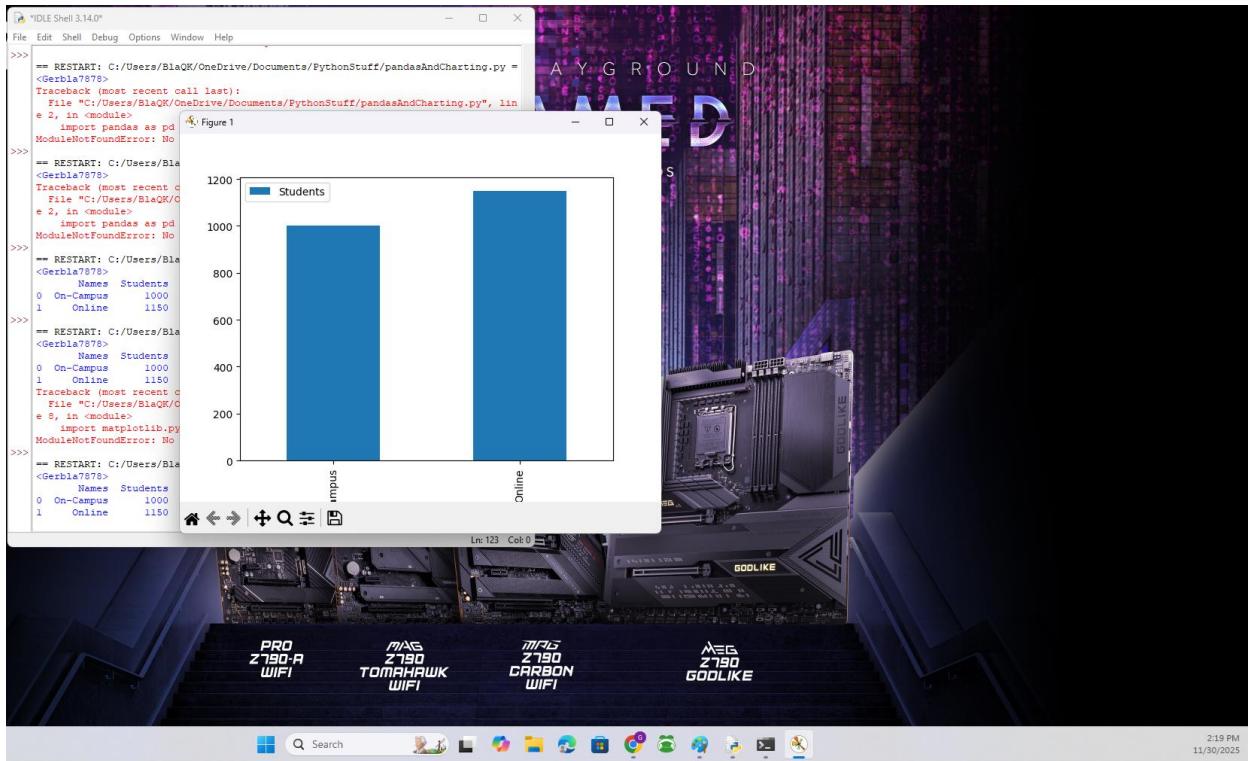
```
print("Gerbla7878")
import pandas as pd

data = {'Names': ['On-Campus', 'Online'], 'Students': [1000, 1150]}
df = pd.DataFrame(data, columns=['Names', 'Students'])
print(df)
```

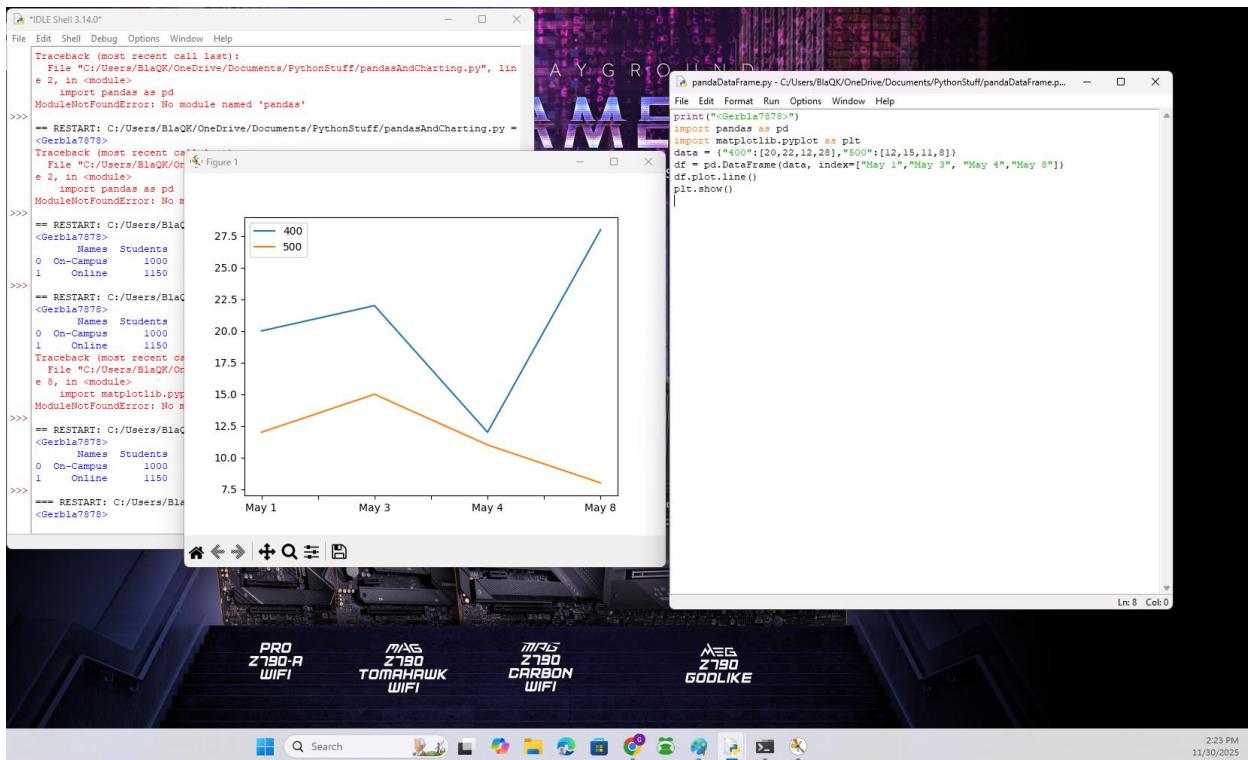
The right window is an IDLE Shell 3.14.0 showing the execution of the script. It starts with a welcome message, then shows several attempts to import the 'pandas' module, each resulting in a ModuleNotFoundError. Finally, it successfully runs the print statement, displaying the DataFrame:

```
Welcome to Python!
>>> == RESTART: C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py =
<Gerbla7878>
Traceback (most recent call last):
  File "C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py", line
  2, in <module>
    import pandas as pd
ModuleNotFoundError: No module named 'pandas'
>>> == RESTART: C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py =
<Gerbla7878>
Traceback (most recent call last):
  File "C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py", line
  2, in <module>
    import pandas as pd
ModuleNotFoundError: No module named 'pandas'
>>> == RESTART: C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py =
<Gerbla7878>
Traceback (most recent call last):
  File "C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py", line
  2, in <module>
    import pandas as pd
ModuleNotFoundError: No module named 'pandas'
>>> == RESTART: C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py =
<Gerbla7878>
Traceback (most recent call last):
  File "C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py", line
  2, in <module>
    import pandas as pd
ModuleNotFoundError: No module named 'pandas'
>>> == RESTART: C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py =
<Gerbla7878>
Traceback (most recent call last):
  File "C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py", line
  2, in <module>
    import pandas as pd
ModuleNotFoundError: No module named 'pandas'
>>> == RESTART: C:/Users/BlaQK/OneDrive/Documents/PythonStuff/pandasAndCharting.py =
<Gerbla7878>
   Names Students
0 On-Campus      1000
1     Online       1150
```

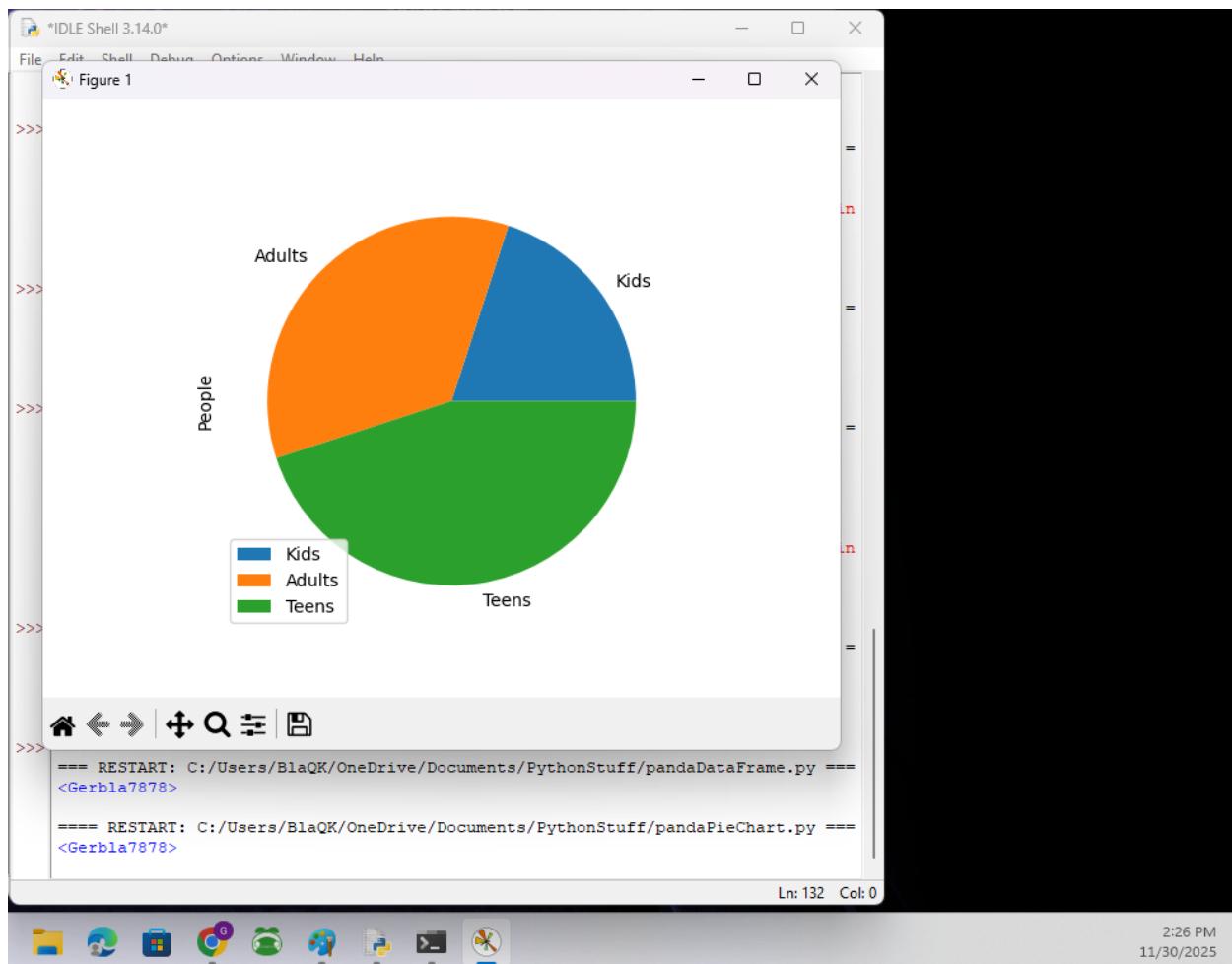
2.



### 3.



4.



1. Explain what is meant by a key-value store. Give an example, other than the one included in this guided practice.

**A key-value store is a type of database or data storage system where data is organized as pairs: a key and its associated value.**

```
contacts = {
    "alice@example.com": "555-1234",
    "bob@example.com": "555-5678",
    "carol@example.com": "555-9012"
}

# Accessing a value using a key
print(contacts["bob@example.com"]) # Output: 555-5678
```

2. In your own words, explain what a DataFrame is in the context of the pandas library.  
DataFrame in pandas is a table-like structure with rows and columns that makes it easy to store and manipulate data.

```
import pandas as pd
```

```
data = {  
    "Product": ["Laptop", "Phone", "Tablet"],  
    "Price": [1200, 800, 400],  
    "Stock": [5, 10, 7]  
}
```

```
df = pd.DataFrame(data)  
print(df)
```

Output:

	Product	Price	Stock
0	Laptop	1200	5
1	Phone	800	10
2	Tablet	400	7

3. Explain the role of an index in the context of a DataFrame. Give an example, other than the one included in this guided practice.

the **index** labels each row, making it easier to access or identify data.