

CONSIGNA 1

```
Administrador: Símbolo del sistema
Microsoft Windows [Versión 10.0.22621.1848]
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C:\Windows\System32>pip install tk
Collecting tk
  Downloading tk-0.1.0-py3-none-any.whl (3.9 kB)
Installing collected packages: tk
Successfully installed tk-0.1.0

C:\Windows\System32>pip install matplotlib
Collecting matplotlib
  Downloading matplotlib-3.7.1-cp311-cp311-win_amd64.whl (7.6 MB)
----- 7.6/7.6 MB 5.2 MB/s eta 0:00:00
Collecting contourpy>=1.0.1 (from matplotlib)
  Downloading contourpy-1.1.0-cp311-cp311-win_amd64.whl (470 kB)
----- 470.9/470.9 kB 7.3 MB/s eta 0:00:00
Collecting cyclor>=0.10 (from matplotlib)
  Downloading cyclor-0.11.0-py3-none-any.whl (6.4 kB)
Collecting fonttools>=4.22.0 (from matplotlib)
  Downloading fonttools-4.40.0-cp311-cp311-win_amd64.whl (1.9 MB)
----- 1.9/1.9 MB 5.9 MB/s eta 0:00:00
Collecting kiwisolver>=1.0.1 (from matplotlib)
  Downloading kiwisolver-1.4.4-cp311-cp311-win_amd64.whl (55 kB)
----- 55.4/55.4 kB ? eta 0:00:00
Requirement already satisfied: numpy>=1.20 in c:\users\ariel\appdata\local\programs\python\python311\lib\site-packages (from matplotlib) (1.24.3)
Requirement already satisfied: packaging>=20.0 in c:\users\ariel\appdata\local\programs\python\python311\lib\site-packages (from matplotlib) (23.1)
Requirement already satisfied: pillow>=6.2.0 in c:\users\ariel\appdata\local\programs\python\python311\lib\site-packages (from matplotlib) (9.5.0)
Requirement already satisfied: pyparsing>=2.3.1 in c:\users\ariel\appdata\local\programs\python\python311\lib\site-packages (from matplotlib) (3.0.9)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\ariel\appdata\local\programs\python\python311\lib\site-packages (from matplotlib) (2.8.2)
Requirement already satisfied: six>=1.5 in c:\users\ariel\appdata\local\programs\python\python311\lib\site-packages (from python-dateutil>=2.7->matplotlib) (1.16.0)
Installing collected packages: kiwisolver, fonttools, cyclor, contourpy, matplotlib
Successfully installed contourpy-1.1.0 cyclor-0.11.0 fonttools-4.40.0 kiwisolver-1.4.4 matplotlib-3.7.1

C:\Windows\System32>
```

Visual Studio Code interface showing a Python file named `Consigna-1.py` with the following code:

```
1 import tkinter
2 tkinter._test()
```

A Tkinter window is displayed in the foreground with the text:

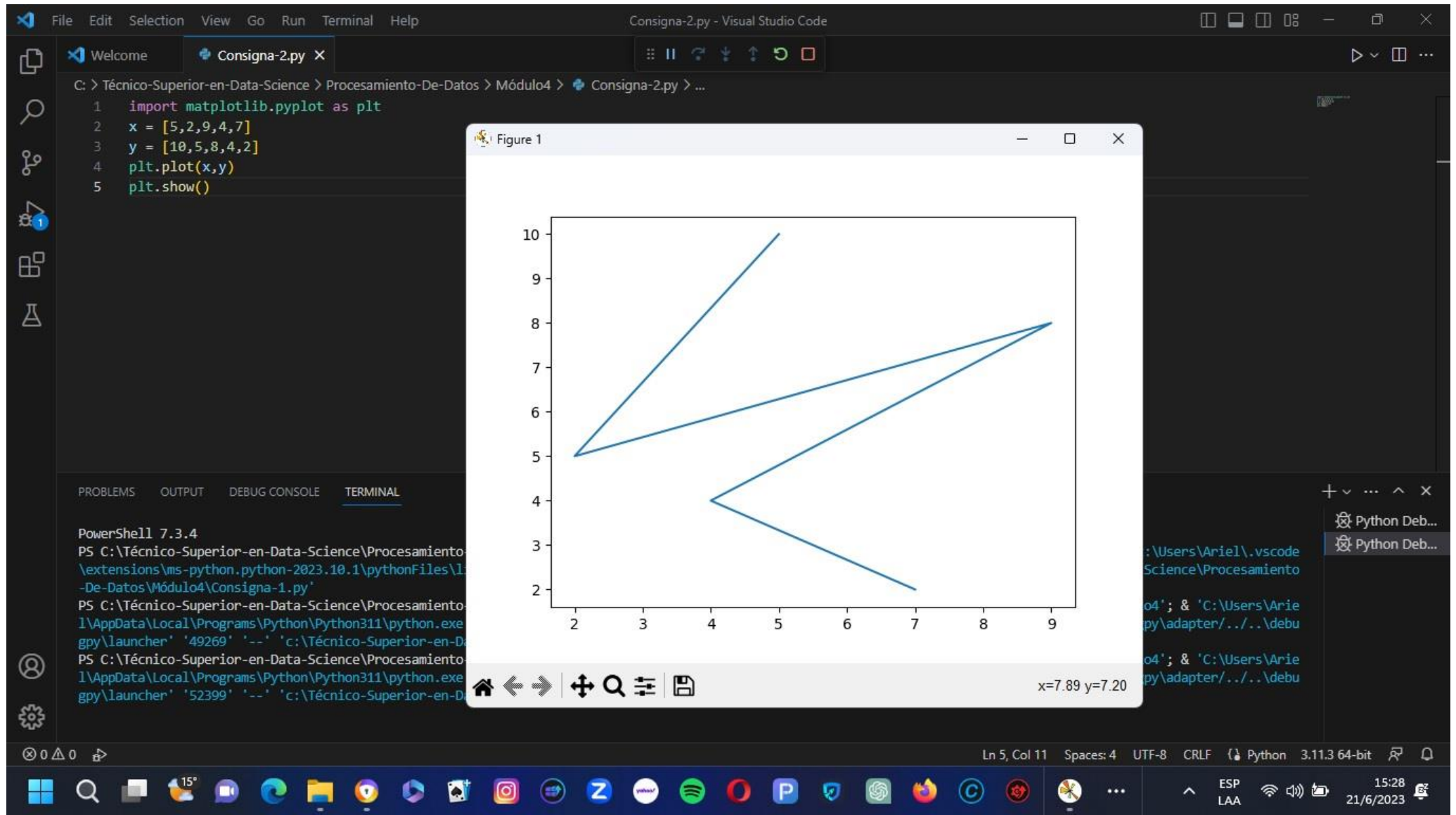
This is Tcl/Tk version 8.6
This should be a cedilla: ç
Click me!
QUIT

The bottom panel shows the TERMINAL output:

```
PowerShell 7.3.4
PS C:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4> & 'C:\Users\Ariel\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\Ariel\.vscode\extensions\ms-python.python-2023.10.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '49239' '--' 'c:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4\Consigna-1.py'
PS C:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4> c.; cd 'c:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4'; & 'C:\Users\Ariel\AppData\Local\Programs\Python\Python311\python.exe' 'c:\Users\Ariel\.vscode\extensions\ms-python.python-2023.10.1\pythonFiles\lib\python\debugpy\adapter\..\..\debugpy\launcher' '49269' '--' 'c:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4\Consigna-1.py'
```

The status bar at the bottom indicates: Ln 2, Col 16, Spaces: 4, UTF-8, CRLF, Python 3.11.3 64-bit.

CONSIGNA 2



CONSIGNA 3

Visual Studio Code interface showing a Python script and its execution results.

Code Editor (Consigna-3.py):

```
1 import matplotlib.pyplot as plt
2 x = [2,3,4,5,6,7,8,9]
3 y = [5,0,4,10,0,2,0,8]
4 plt.bar(x,y)
5 plt.show()
```

Terminal Output:

```
Traceback (most recent call last):
  File "c:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4\Consigna-3.py", line 4, in <module>
    plt.plot.bar(x,y)
    ~~~~~^~~~~~
AttributeError: 'function' object has no attribute 'bar'
```

Figure 1 (Bar Chart):

x	y
2	5
3	0
4	4
5	10
6	0
7	2
8	0
9	8

Figure 1 Data:

x	y
2	5
3	0
4	4
5	10
6	0
7	2
8	0
9	8

Figure 1 Coordinates: x=6.09 y=8.98

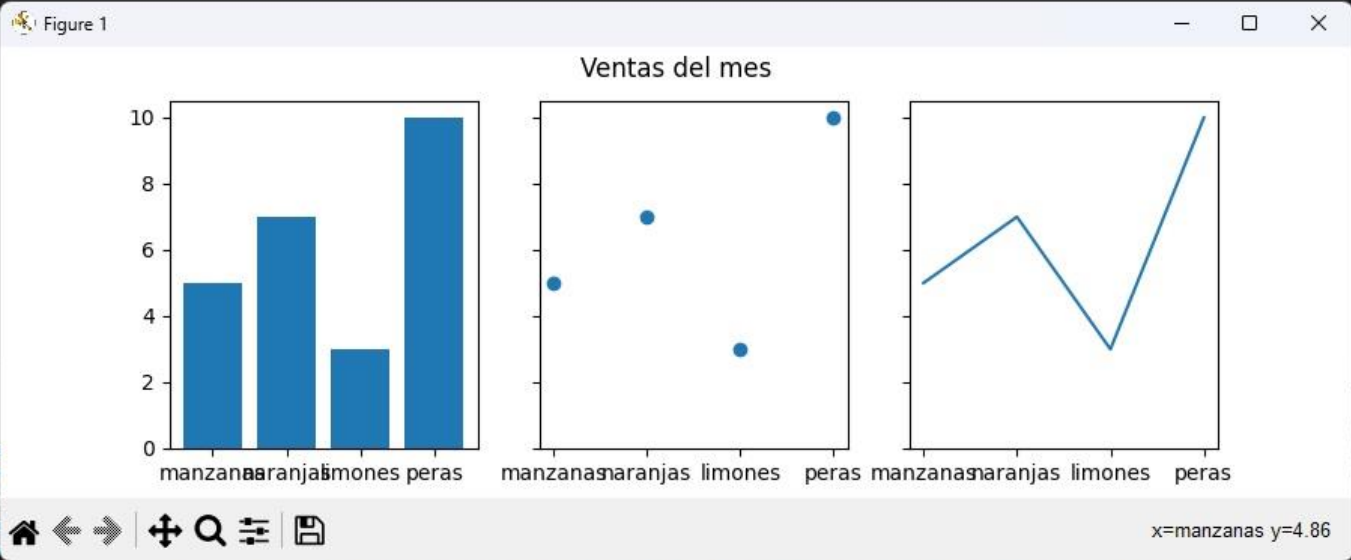
CONSIGNA 4

Visual Studio Code interface showing a Python script and its output.

Code (Consigna-4.py):

```
1 import matplotlib.pyplot as plt
2 data = {"manzanas": 5, "naranjas": 7, "limones": 3, "peras": 10}
3 Nombres = list(data.keys())
4 Valores = list(data.values())
5 fig, axs = plt.subplots(1, 3, figsize=(9, 3), sharey=True)
6 axs[0].bar(Nombres, Valores)
7 axs[1].scatter(Nombres, Valores)
8 axs[2].plot(Nombres, Valores)
9 fig.suptitle("Ventas del mes")
10 plt.show()
11
```

Figure 1: Ventas del mes



The figure displays three subplots sharing a common y-axis representing sales values. The x-axis for all plots lists the fruits: manzanas, naranjas, limones, and peras.

Fruit	Sales Value
manzanas	5
naranjas	7
limones	3
peras	10

Terminal Output:

```
PS C:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4> c:: cd 'c:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4'; & 'C:\Users\Arie...
PS C:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4> c:: cd 'c:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4'; & 'C:\Users\Arie...
PS C:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4> c:: cd 'c:\Técnico-Superior-en-Data-Science\Procesamiento-De-Datos\Módulo4'; & 'C:\Users\Arie...
```

Ln 5, Col 44 Spaces: 4 UTF-8 CRLF Python 3.11.3 64-bit

16:23 21/6/2023