Nama : Ambar Wati

NIM : 20.01.013.001

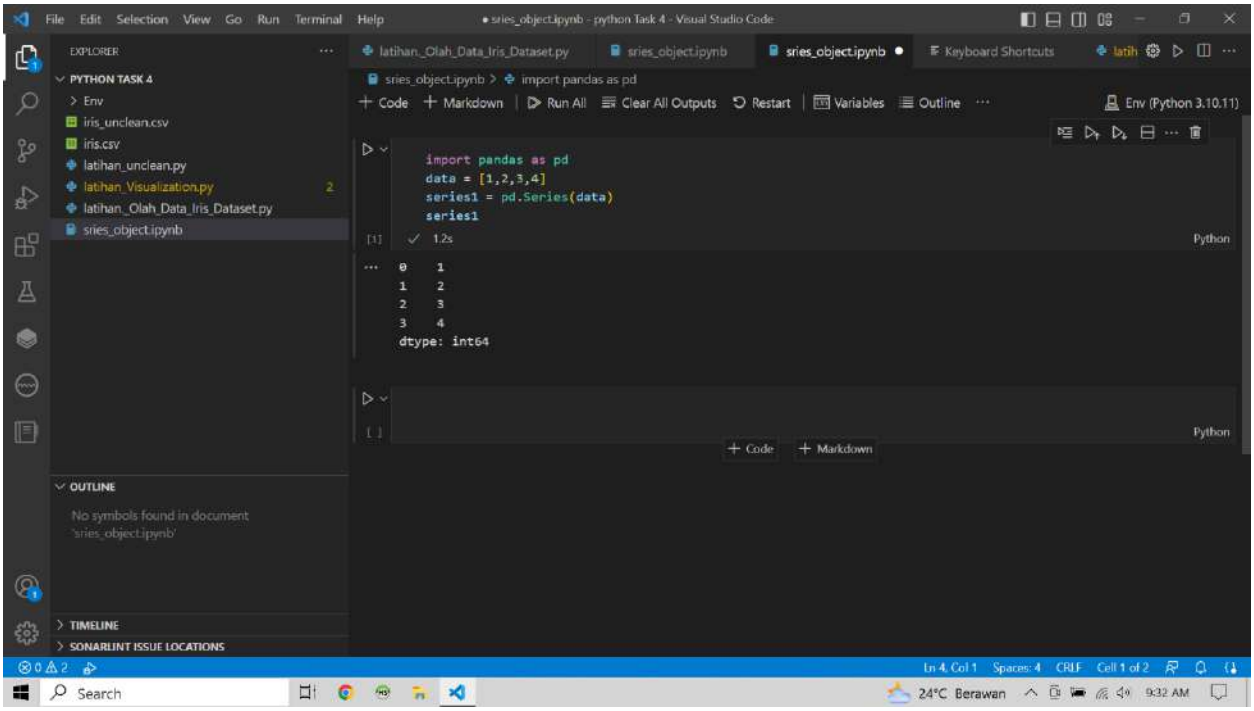
Kelas : C

Mata Kuliah : Perograman Python

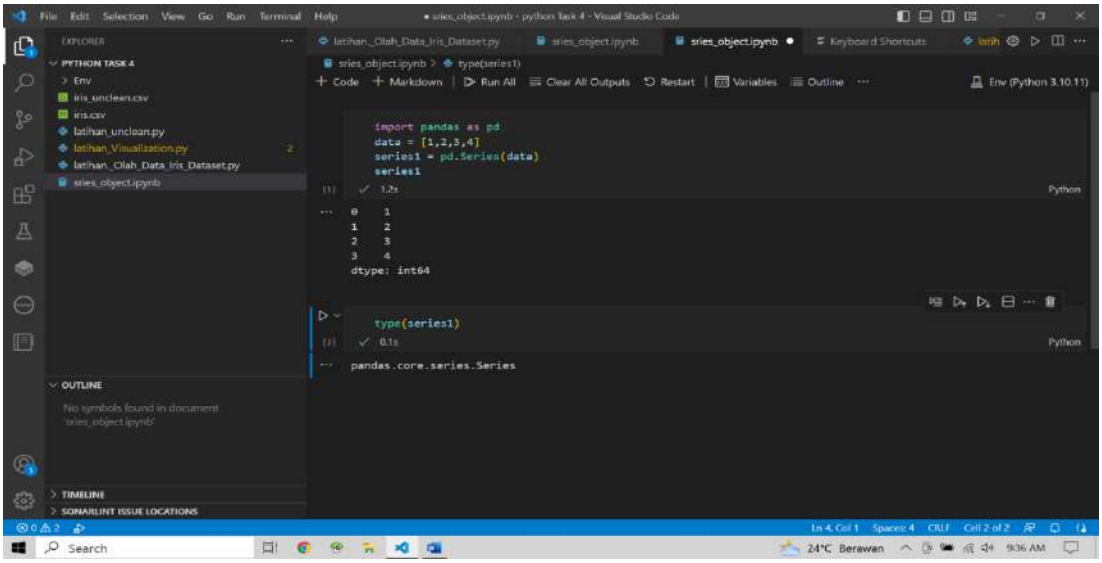
Task 6

4-Data Visualisasi Data-Pandas DataFrame

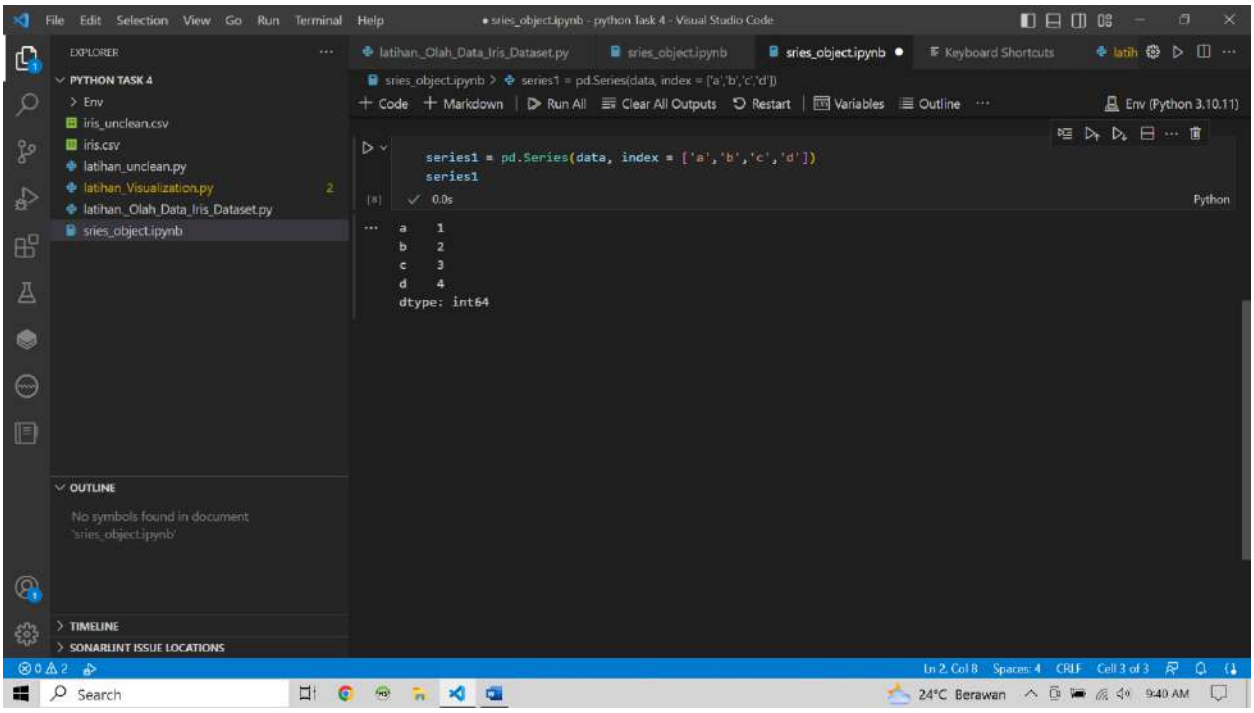
1. membuat Series



2. Cek Tipe Struktur Data Series atau Bukan

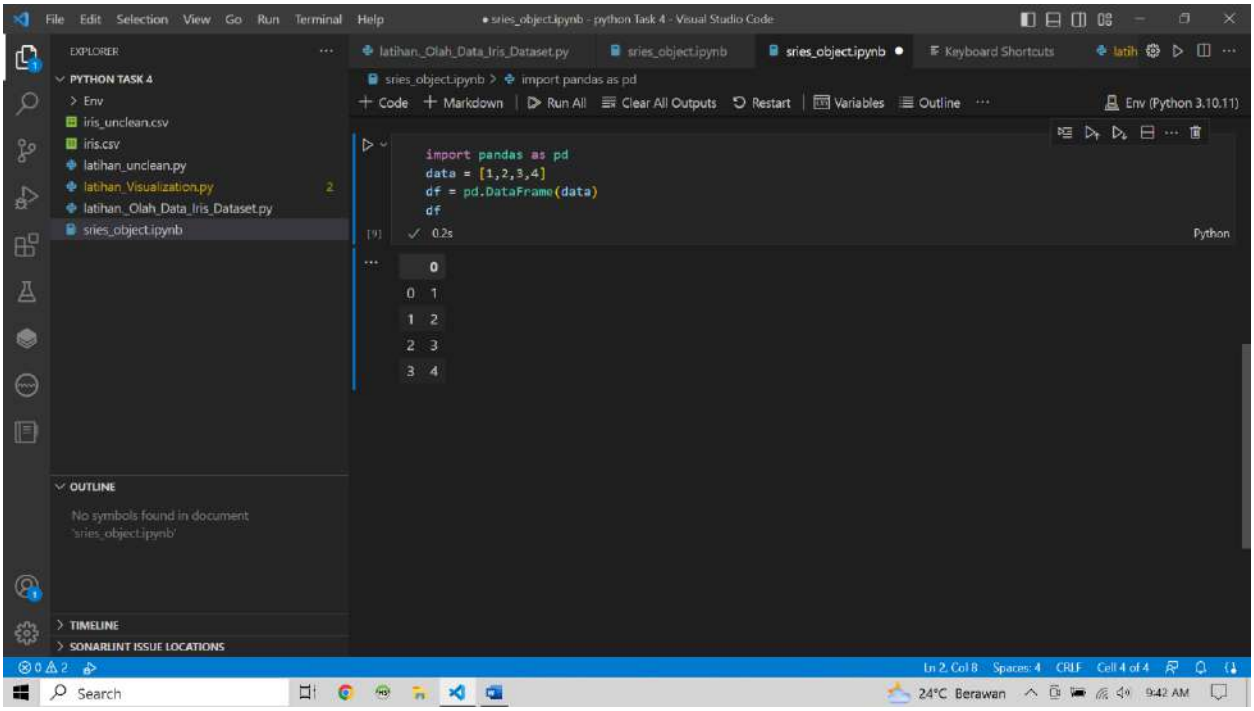


3. Ubah Nama Index

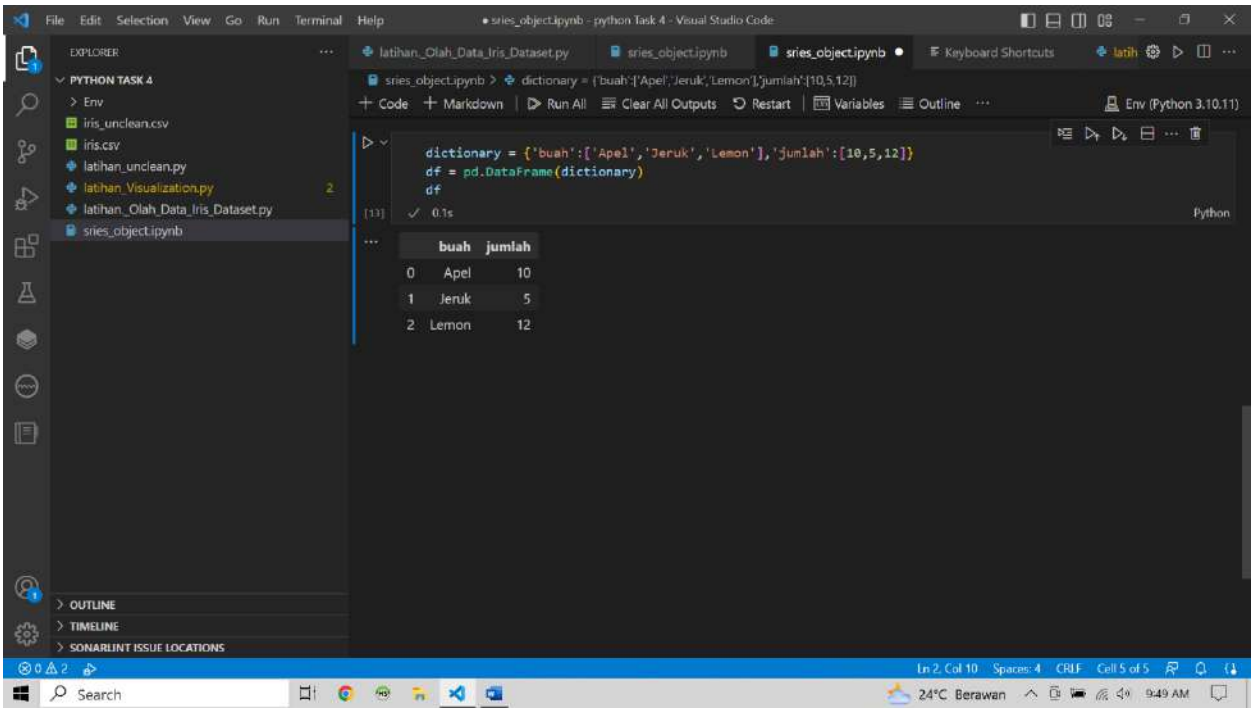


Data Frame

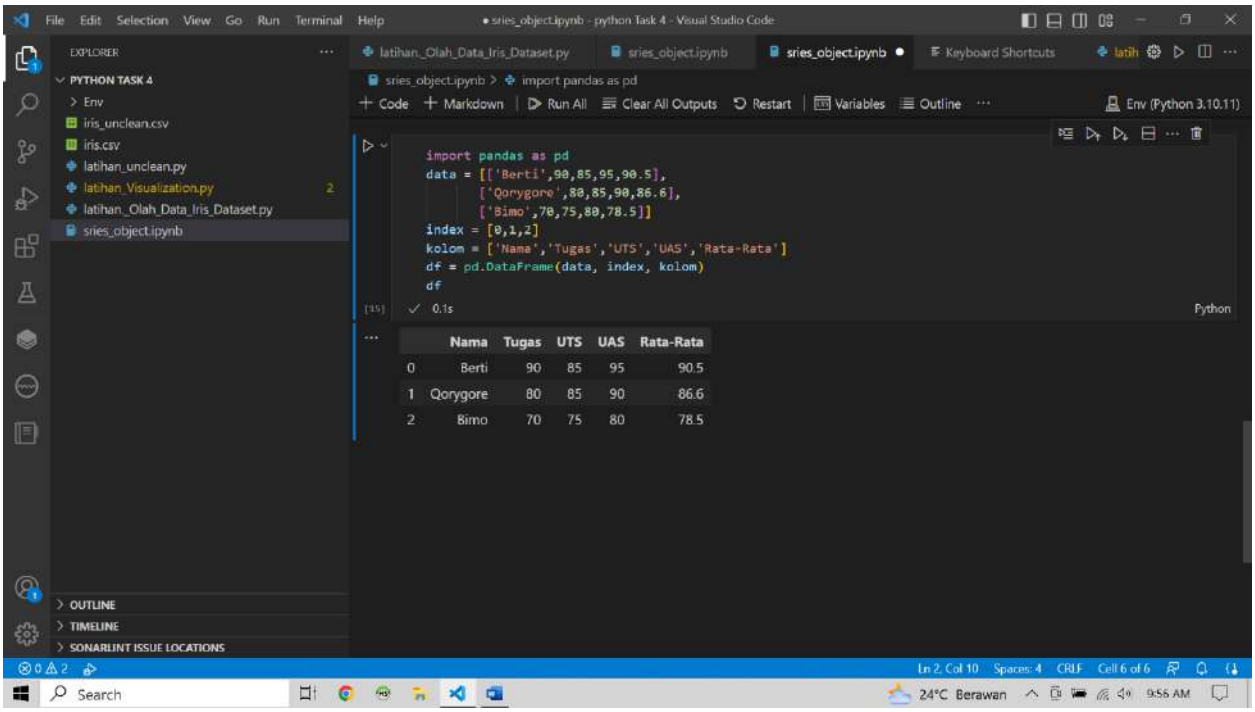
1. DataFrame menggunakan List



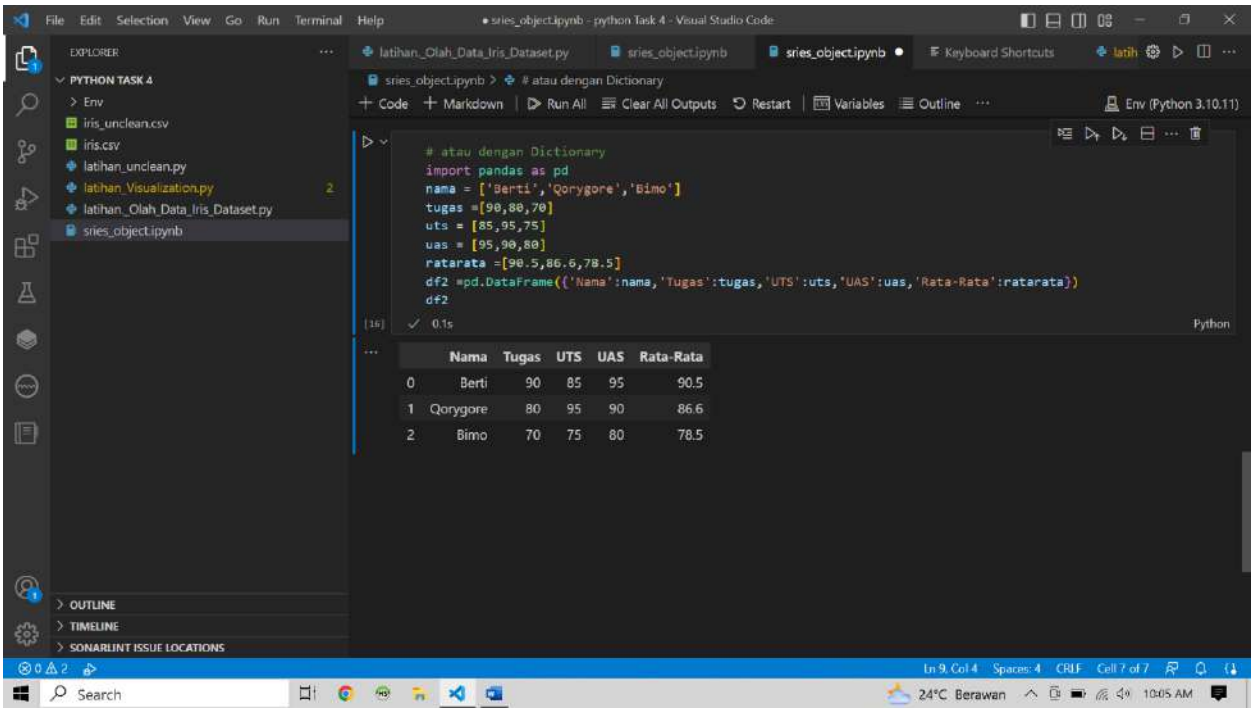
2. DataFrame Menggunakan Dictionary



3. DataFrame Menggunakan List dengan Tipe Data Campuran



4. DataFrame Menggunakan List & Dictionary dengan Tipe Data Campuran



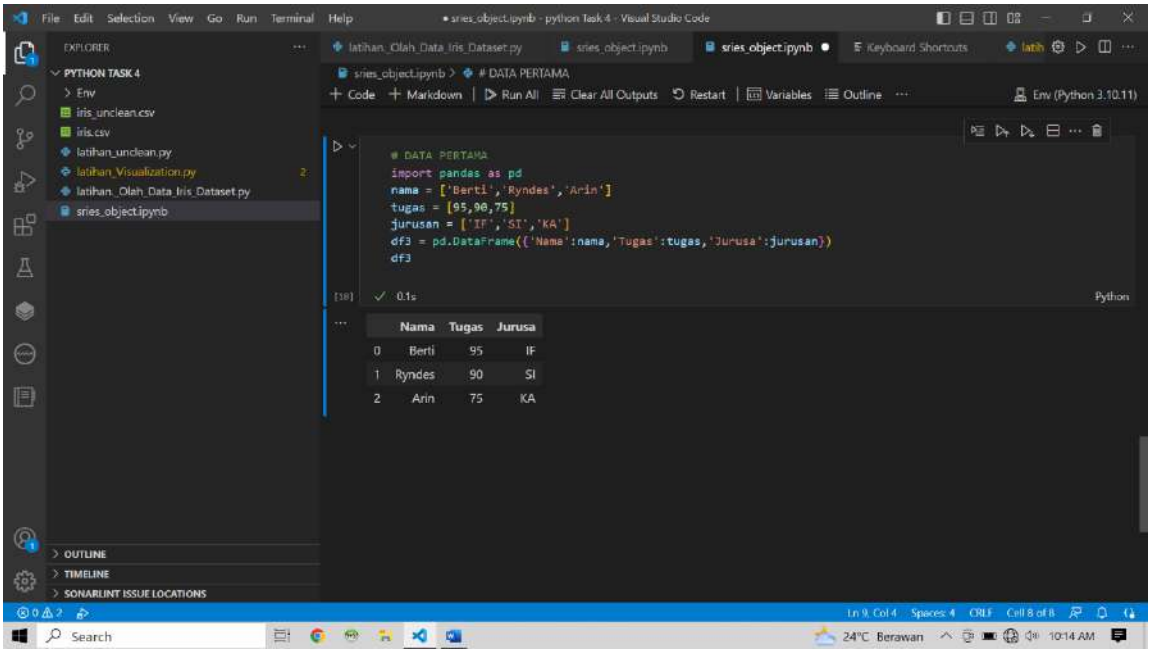
```
# atau dengan Dictionary
import pandas as pd
nama = ['Berti','Qorygore','Bimo']
tugas =[90,80,70]
uts = [85,95,75]
uas = [95,90,80]
ratarata =[90.5,86.6,78.5]
df2 =pd.DataFrame({'Nama':nama,'Tugas':tugas,'UTS':uts,'UAS':uas,'Rata-Rata':ratarata})
df2
```

	Nama	Tugas	UTS	UAS	Rata-Rata
0	Berti	90	85	95	90.5
1	Qorygore	80	95	90	86.6
2	Bimo	70	75	80	78.5

Merge, Join, dan Concatenate DataFrame

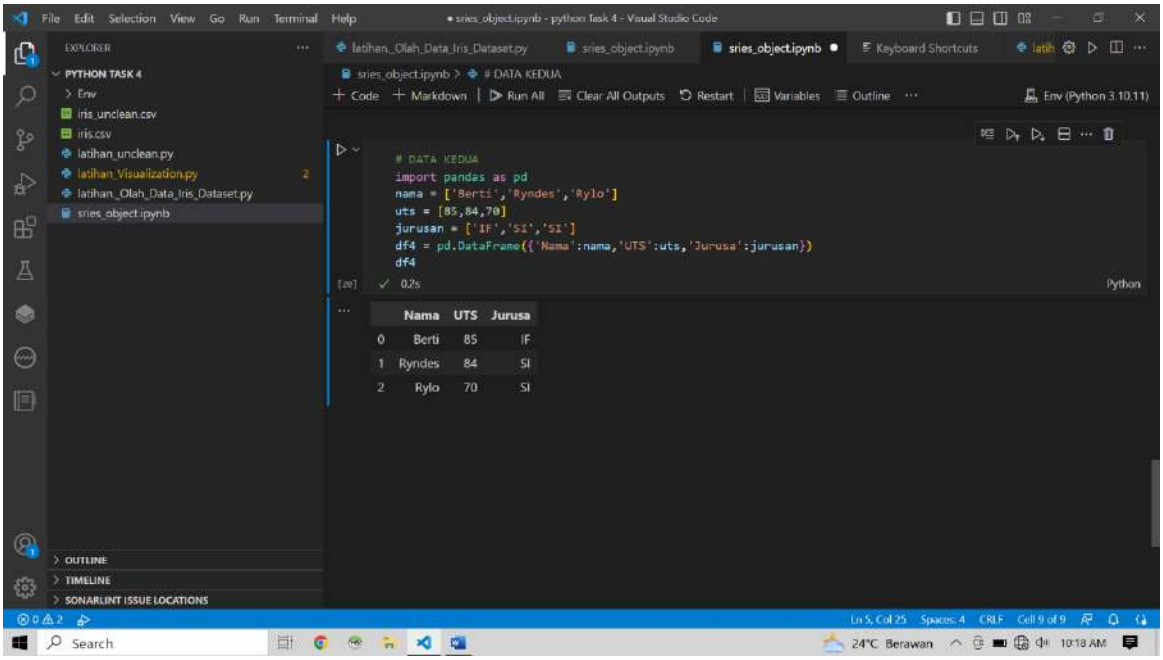
a. Merge

1. Siapkan 2 Data

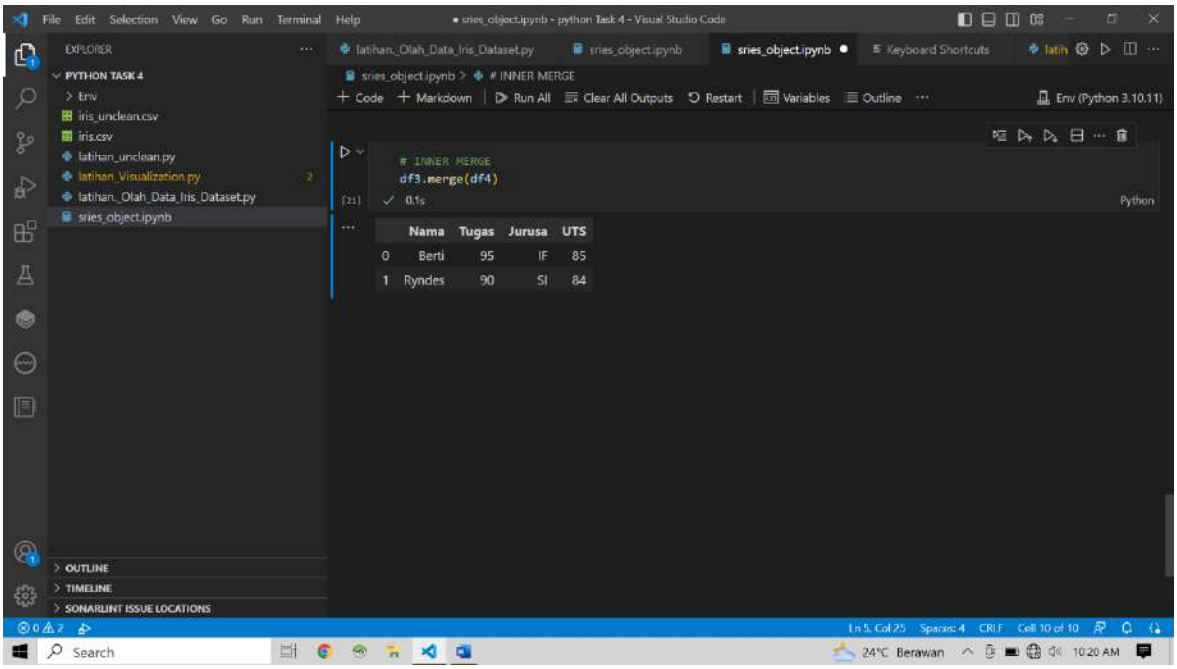


```
# DATA PERTAMA
import pandas as pd
nama = ['Berti','Ryndes','Arin']
tugas = [95,90,75]
jurusan = ['IF','SI','KA']
df3 = pd.DataFrame({'Nama':nama,'Tugas':tugas,'Jurusa':jurusan})
df3
```

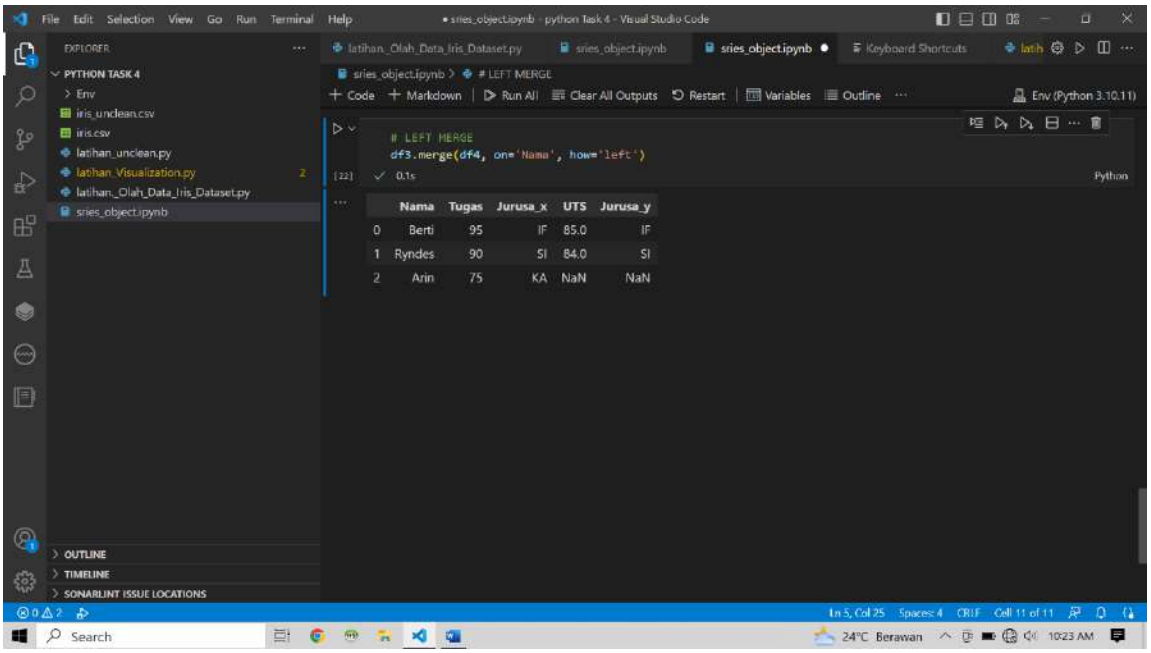
	Nama	Tugas	Jurusa
0	Berti	95	IF
1	Ryndes	90	SI
2	Arin	75	KA



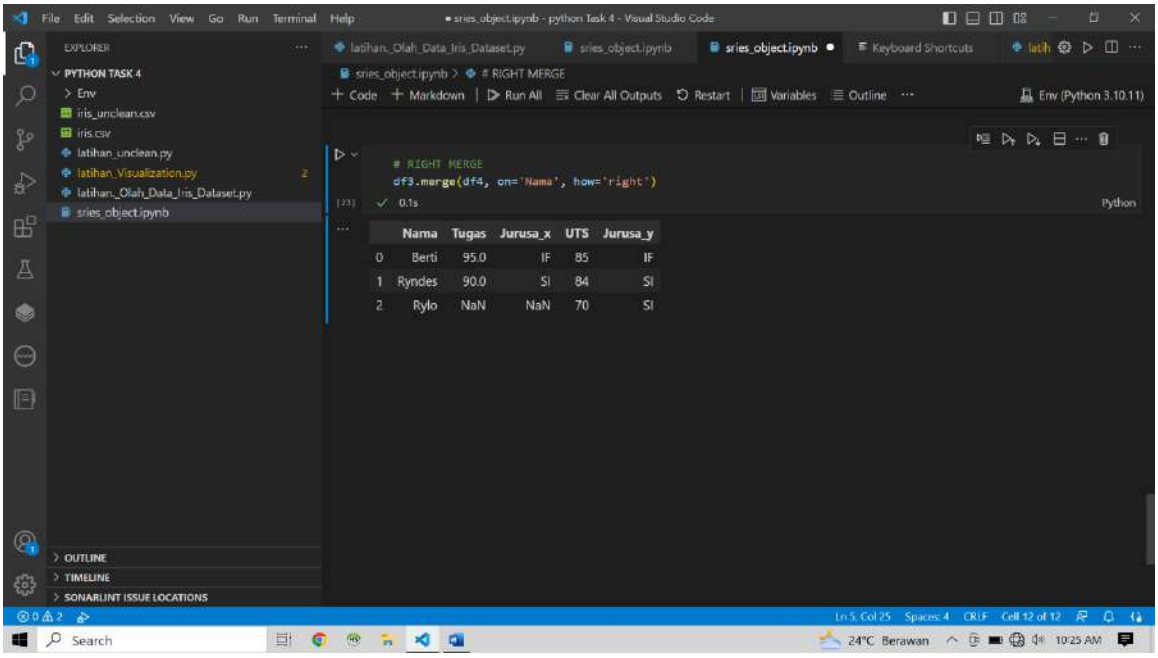
2. Inner Merge



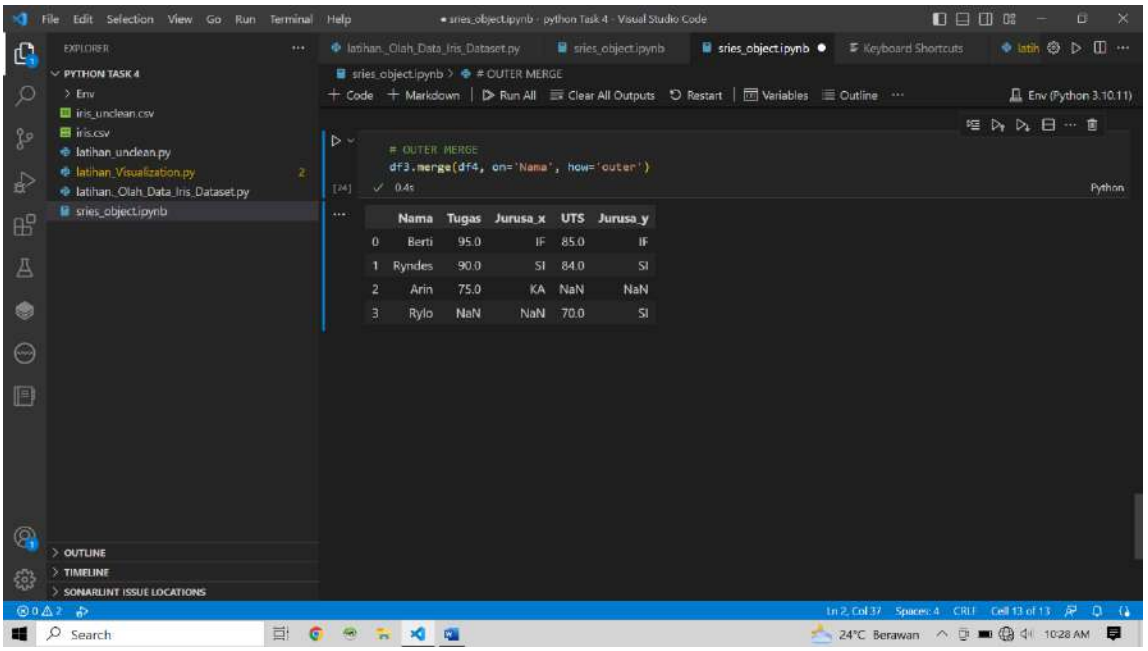
3. Left Marge



4. Right Merge

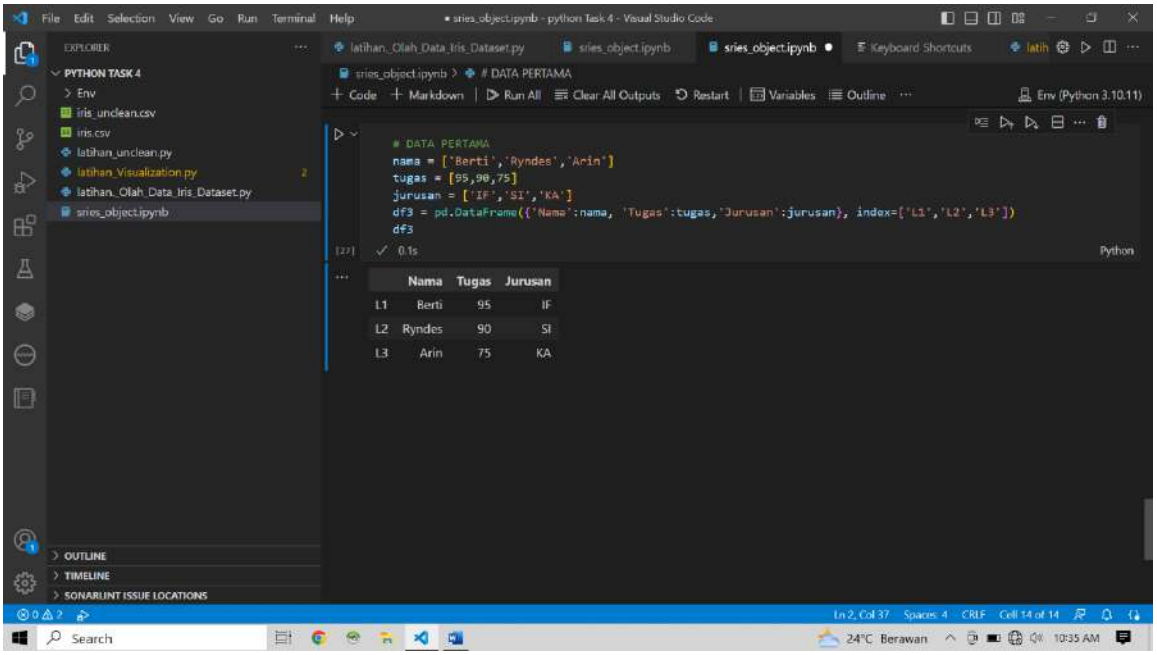


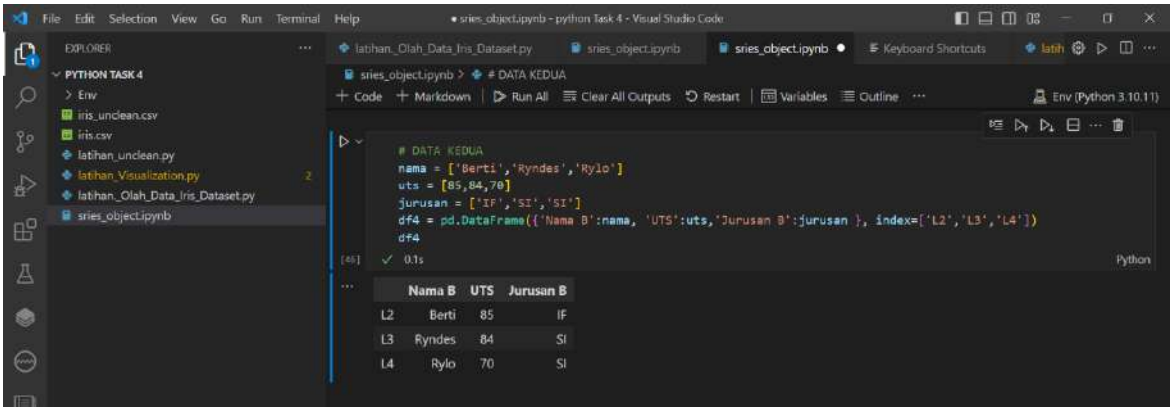
5. Outer Merge



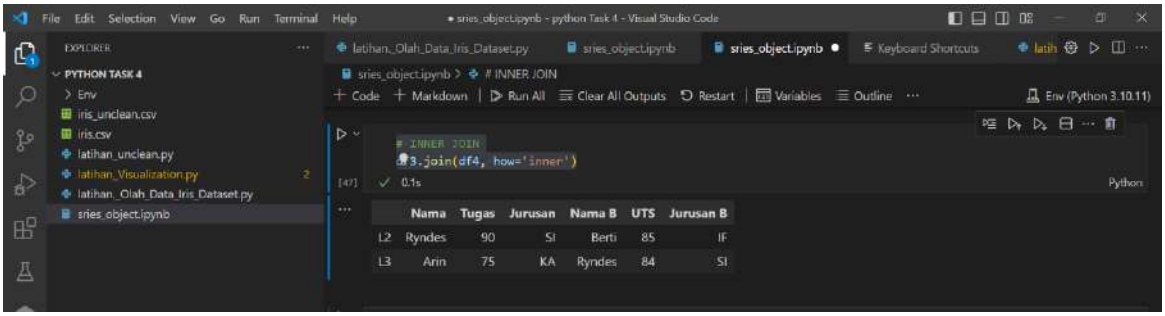
b. Join

1. Siapkan 2 Data



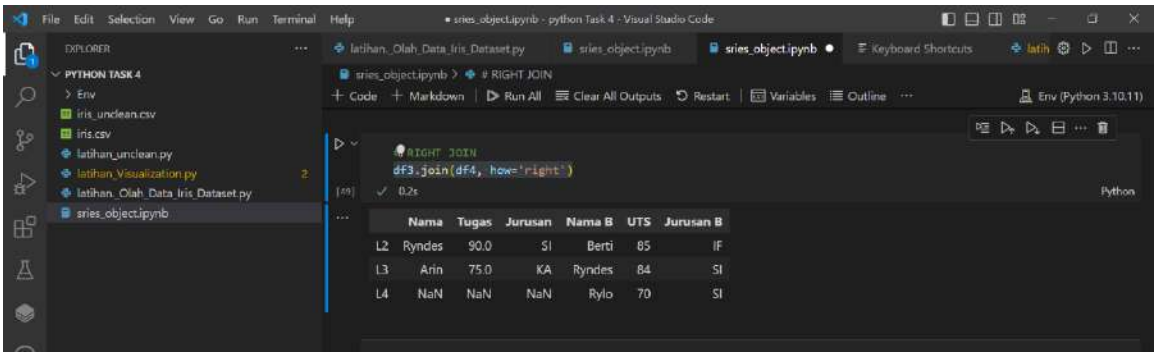


2. Inner Join

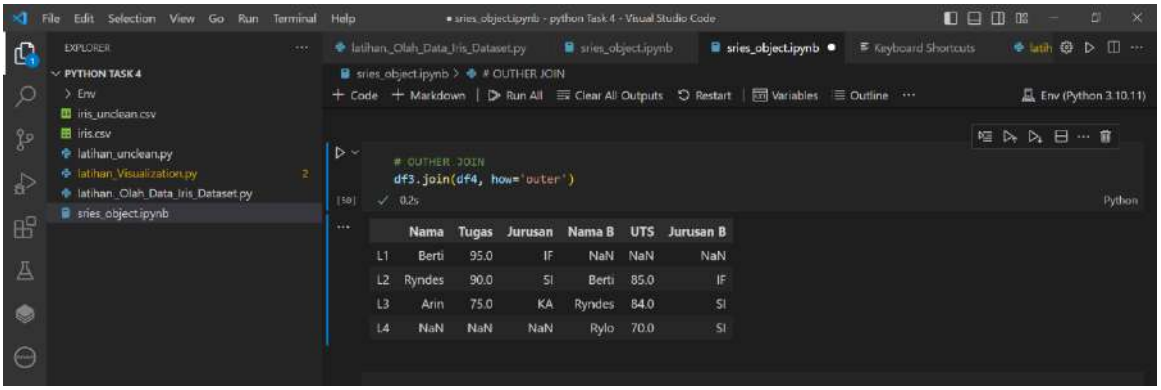


3. Left join

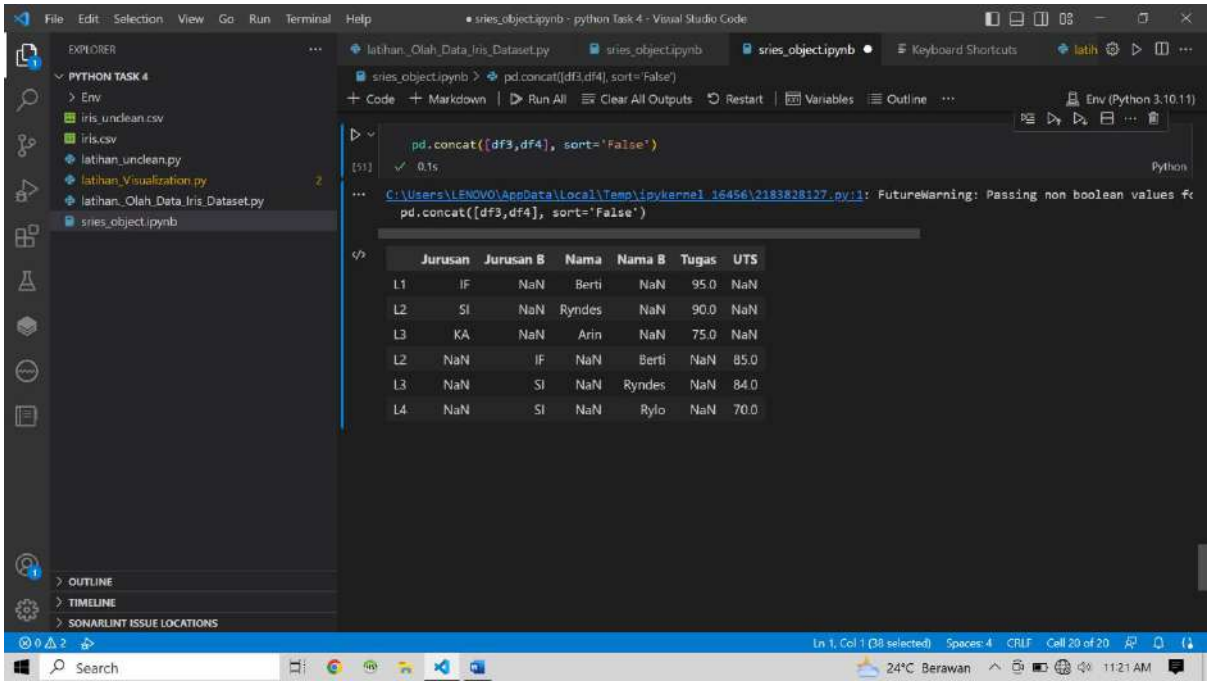
4. Right join



5. Outher Join

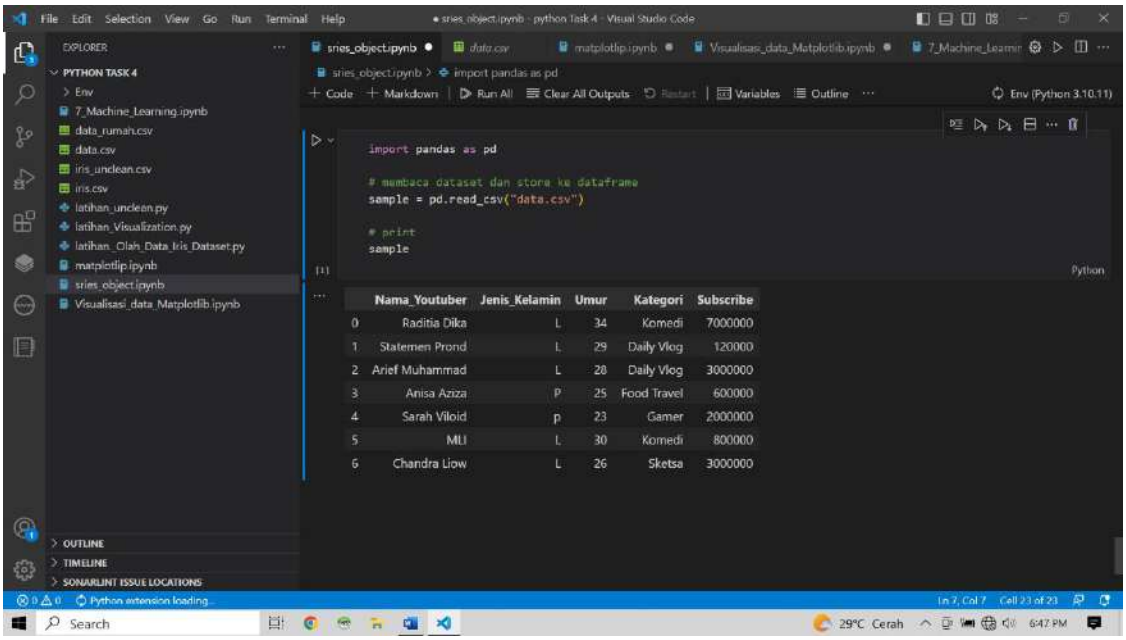


c. Concatenate



d. Pandas DataFrame – Import Data CSV

1. Import Data CSV

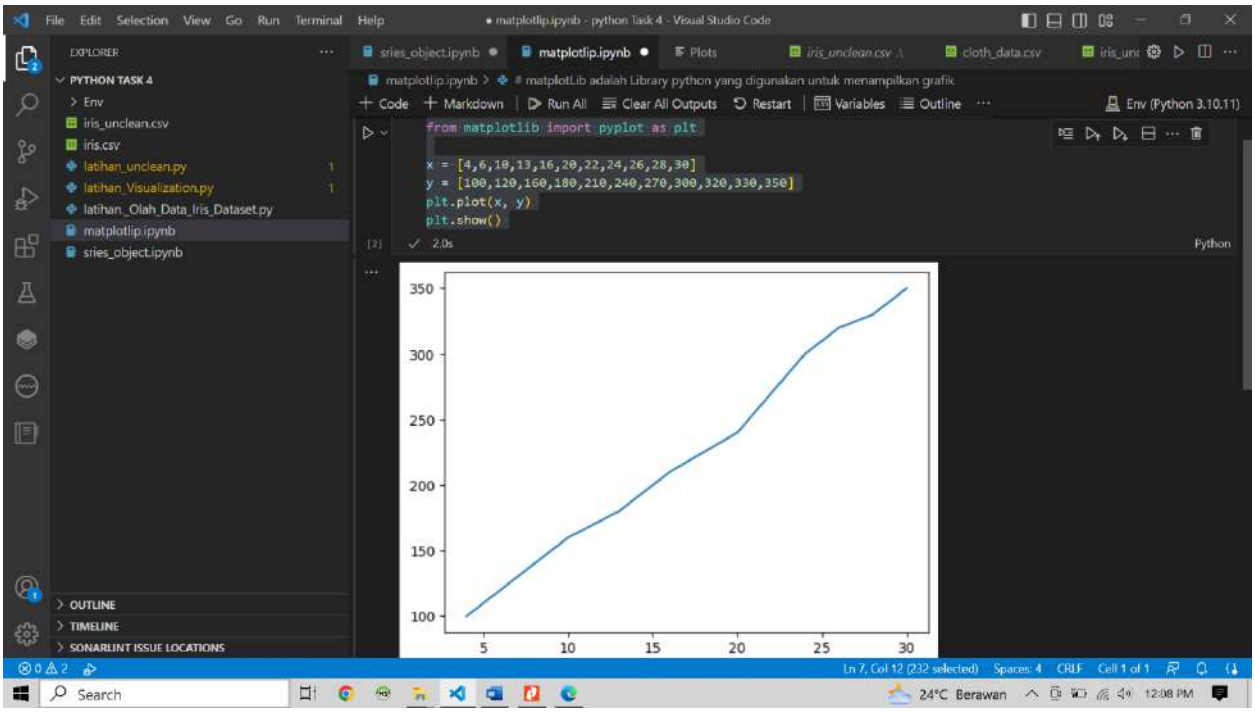


```
import pandas as pd

# membaca dataset dan store ke dataframe
sample = pd.read_csv("data.csv")

# print
sample
```

	Nama_Youtuber	Jenis_Kelamin	Umur	Kategori	Subscribe
0	Raditia Dika	L	34	Komedi	7000000
1	Statemen Prond	L	29	Daily Vlog	120000
2	Arief Muhammad	L	28	Daily Vlog	3000000
3	Anisa Aziza	P	25	Food Travel	600000
4	Sarah Viloid	p	23	Gamer	2000000
5	MLI	L	30	Komedi	800000
6	Chandra Liow	L	26	Sketsa	3000000

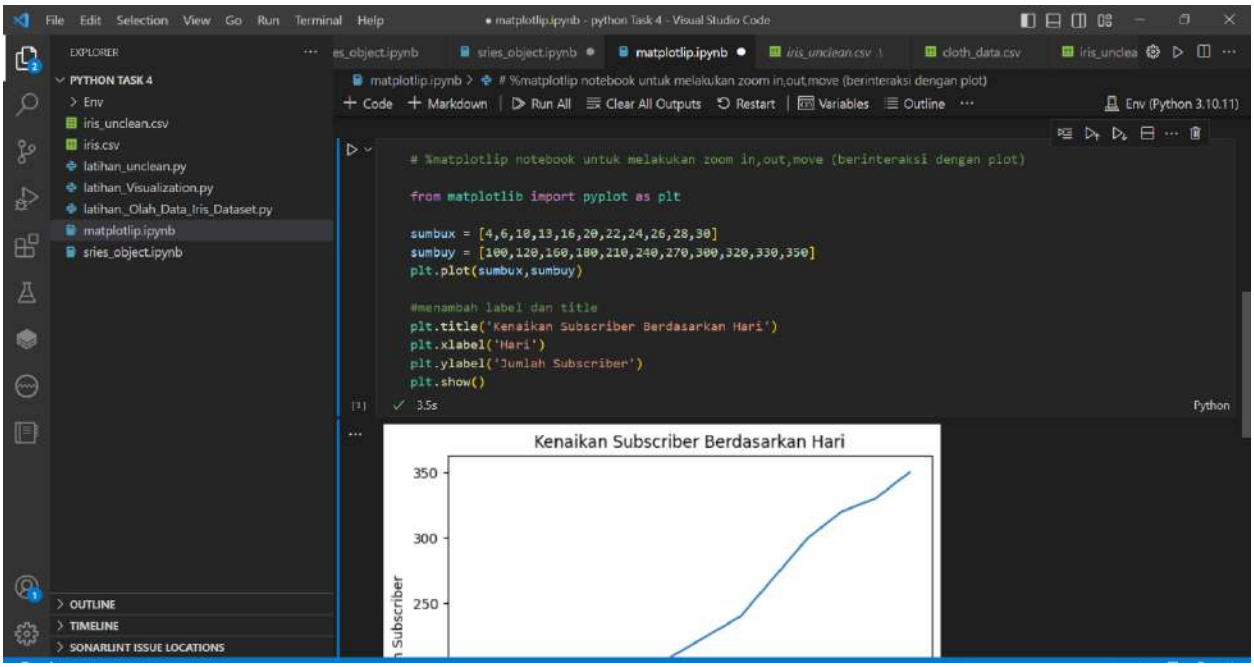
5-Visualisasi Data-Matplotlib

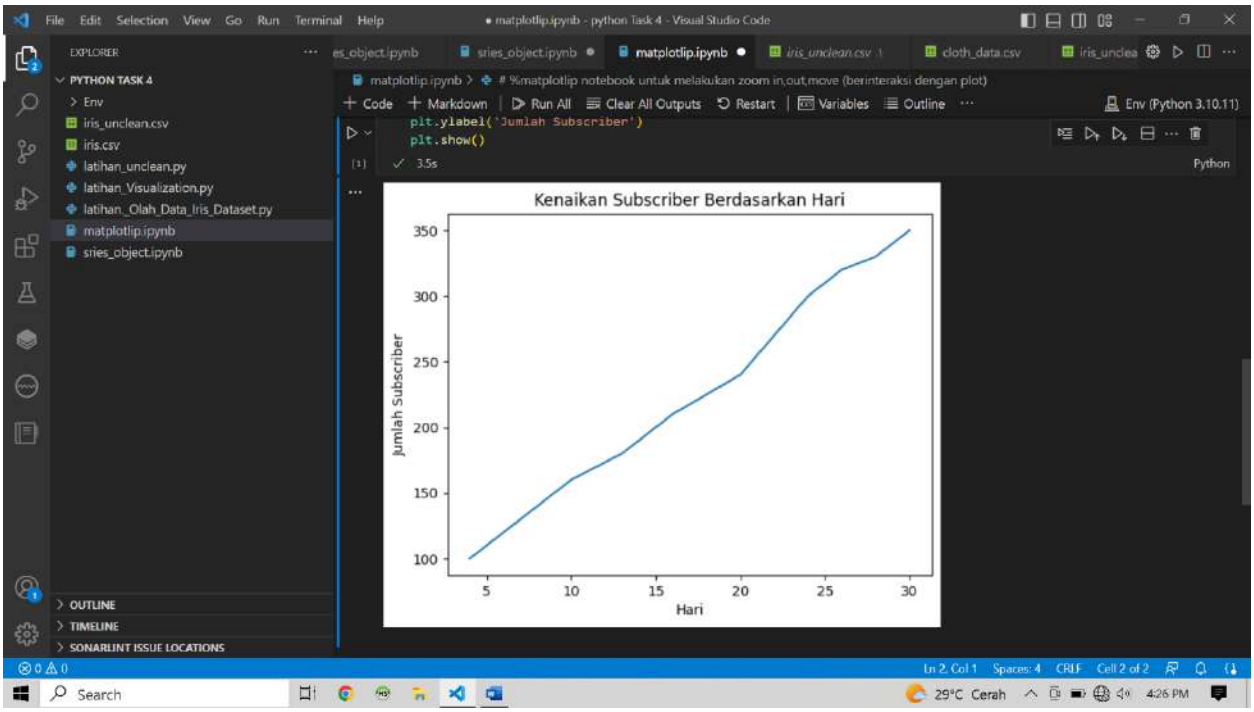
1. Plot Garis



```
from matplotlib import pyplot as plt

x = [4,6,10,13,16,20,22,24,26,28,30]
y = [100,120,160,180,210,240,270,300,320,330,350]
plt.plot(x, y)
plt.show()
```

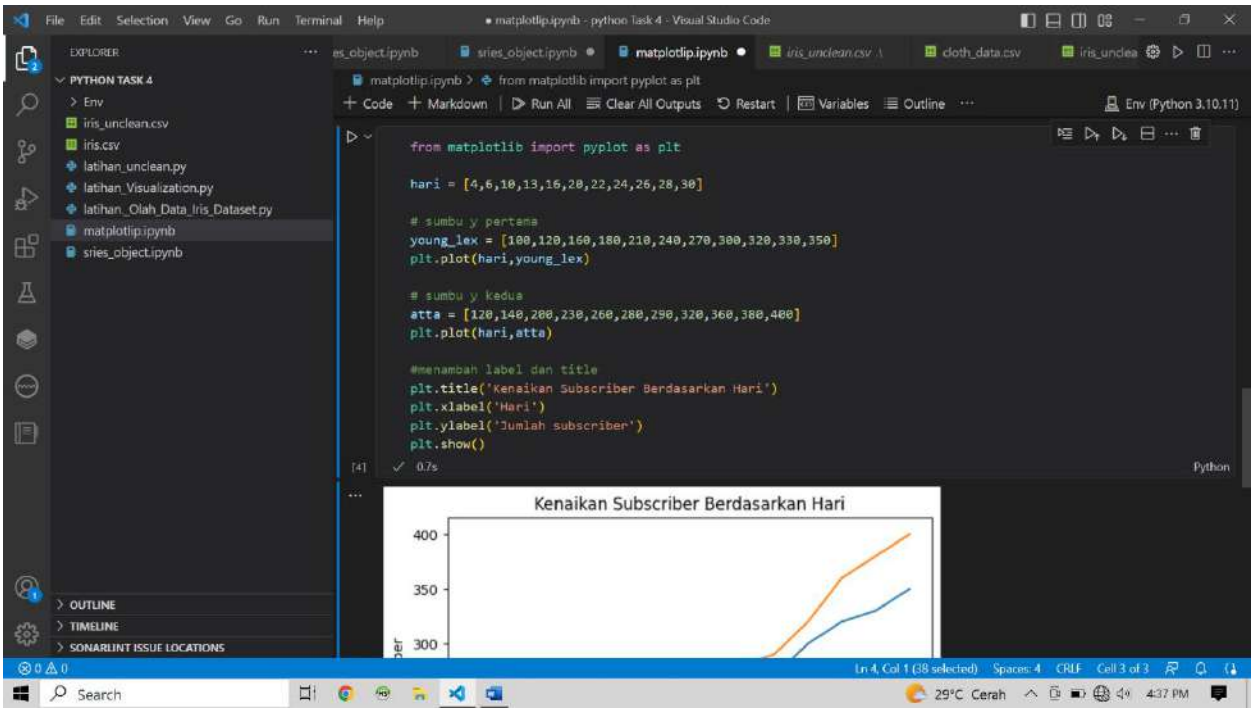
2. Menambah Label dan Title

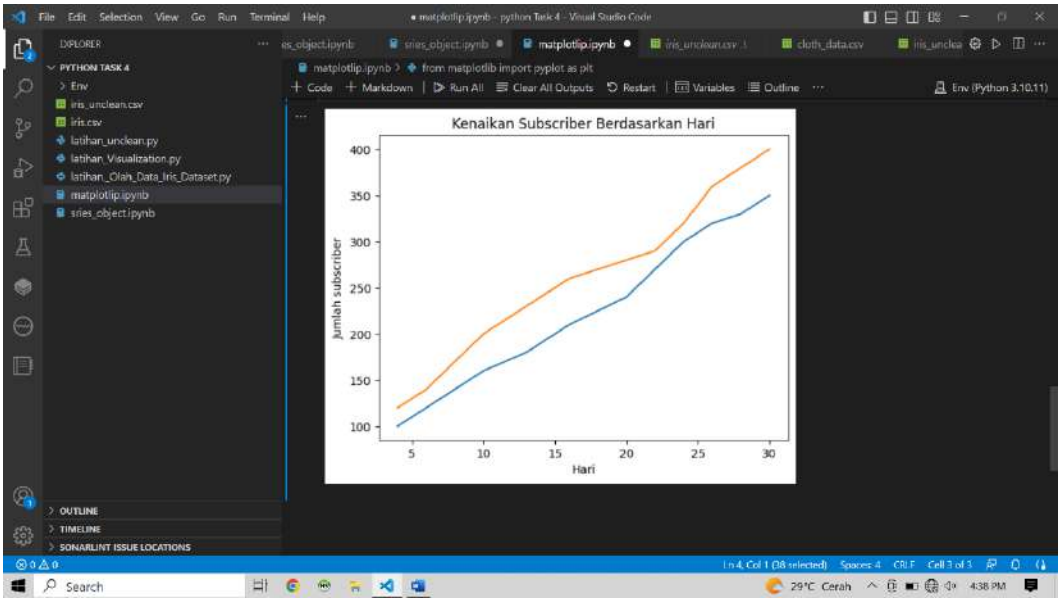




Gambar. Label dan Title

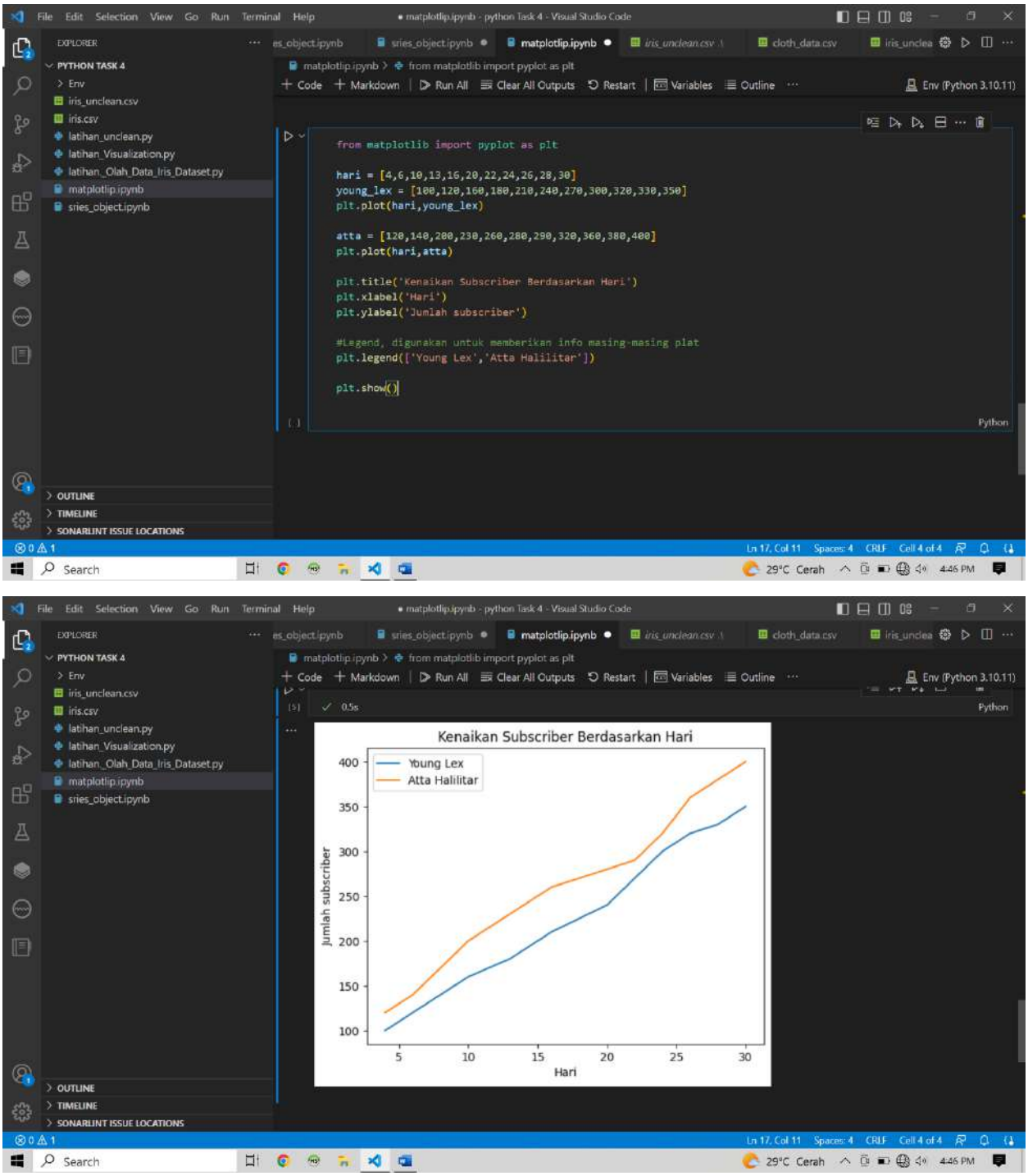
3. Plot Garis Multiline





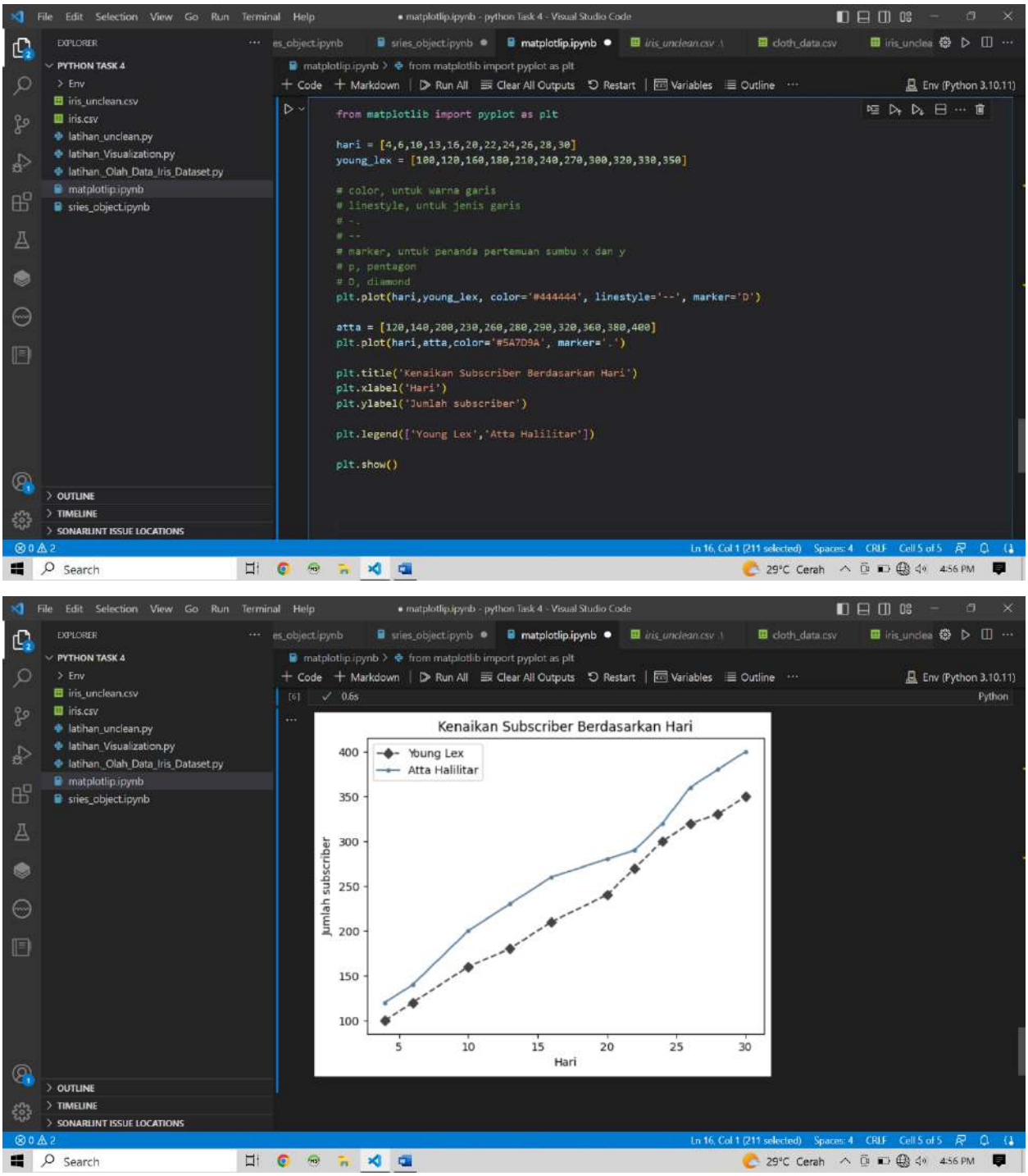
Gambar. Plot Garis multiline

4. Legend



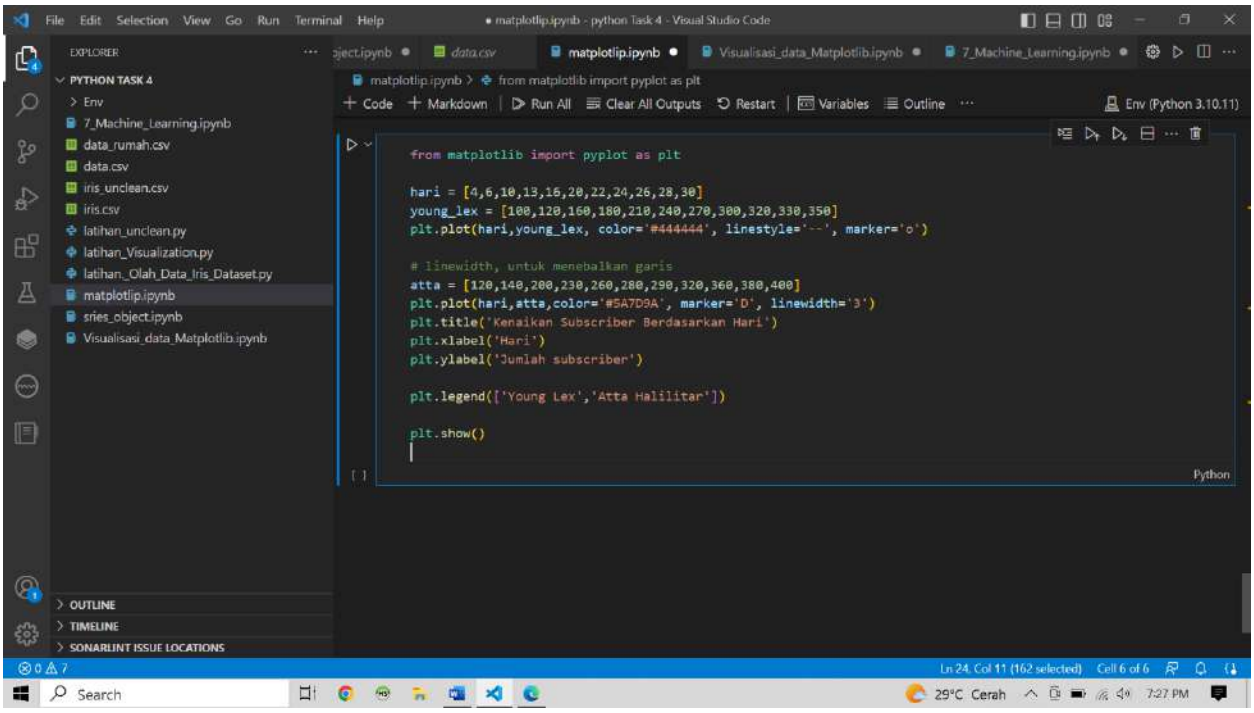
Gambar. Legend

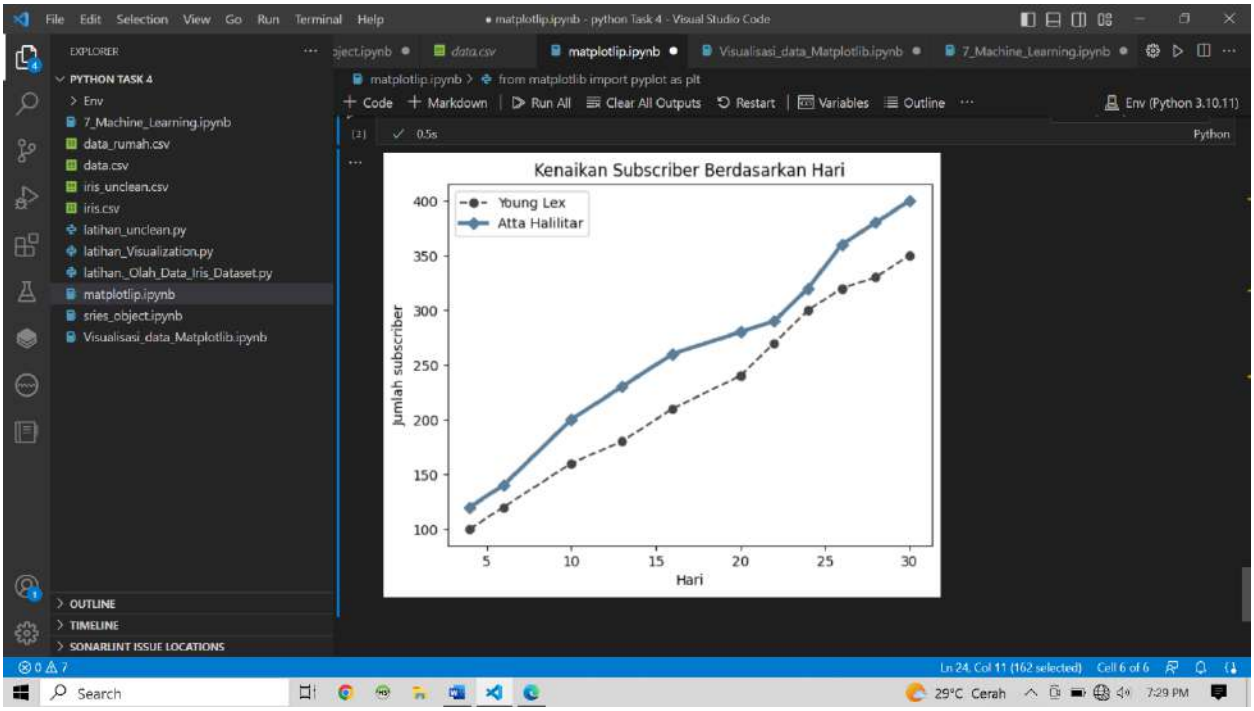
5. Color,Linestyle,Marker



Gambar. Color, Linestyle, Marker

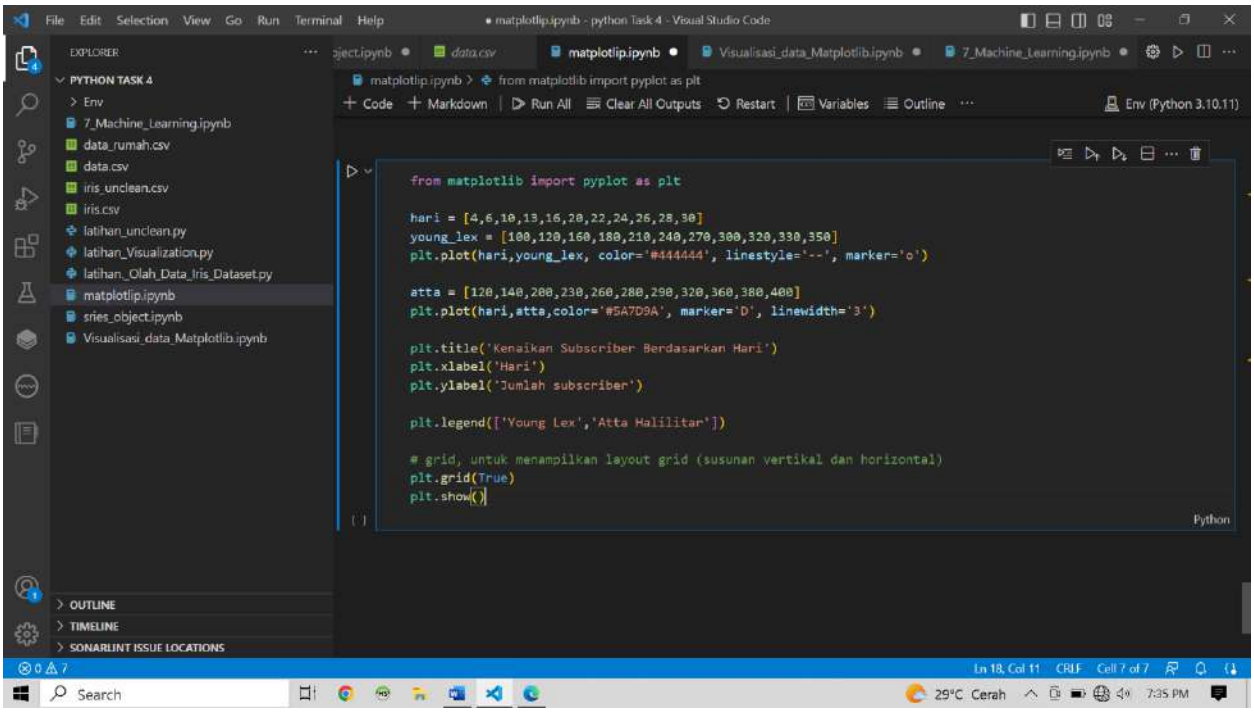
6. Linewidth

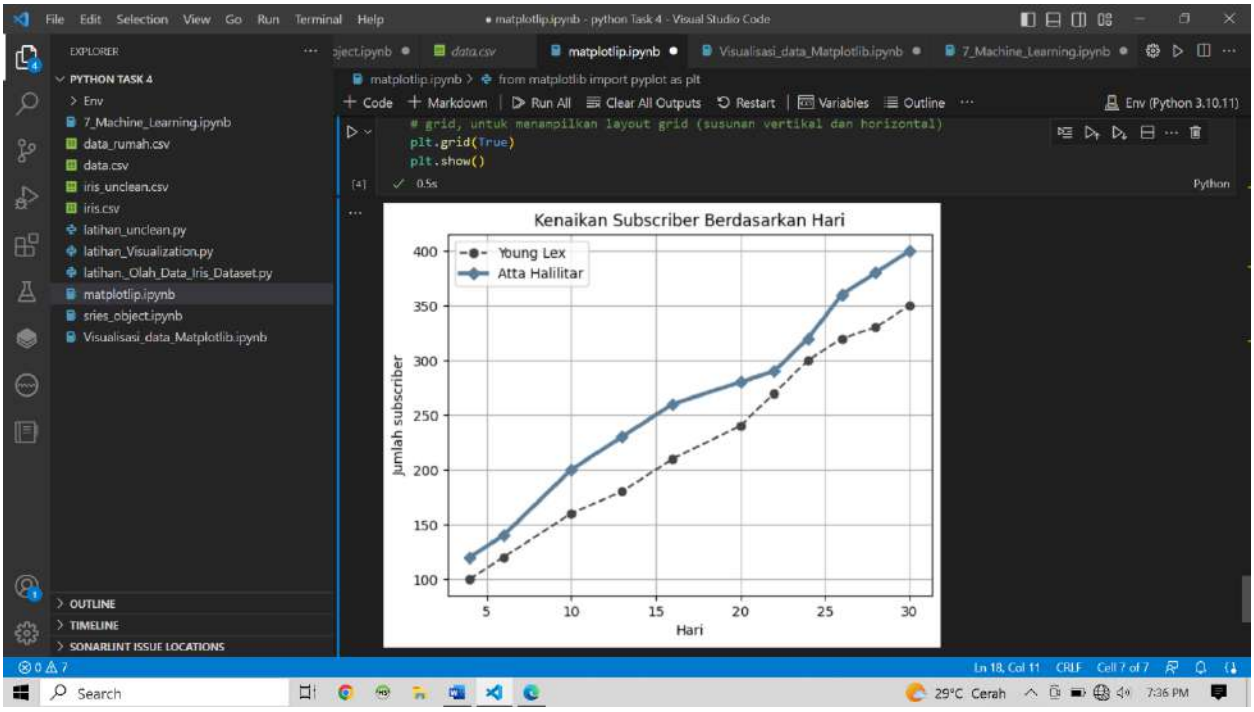




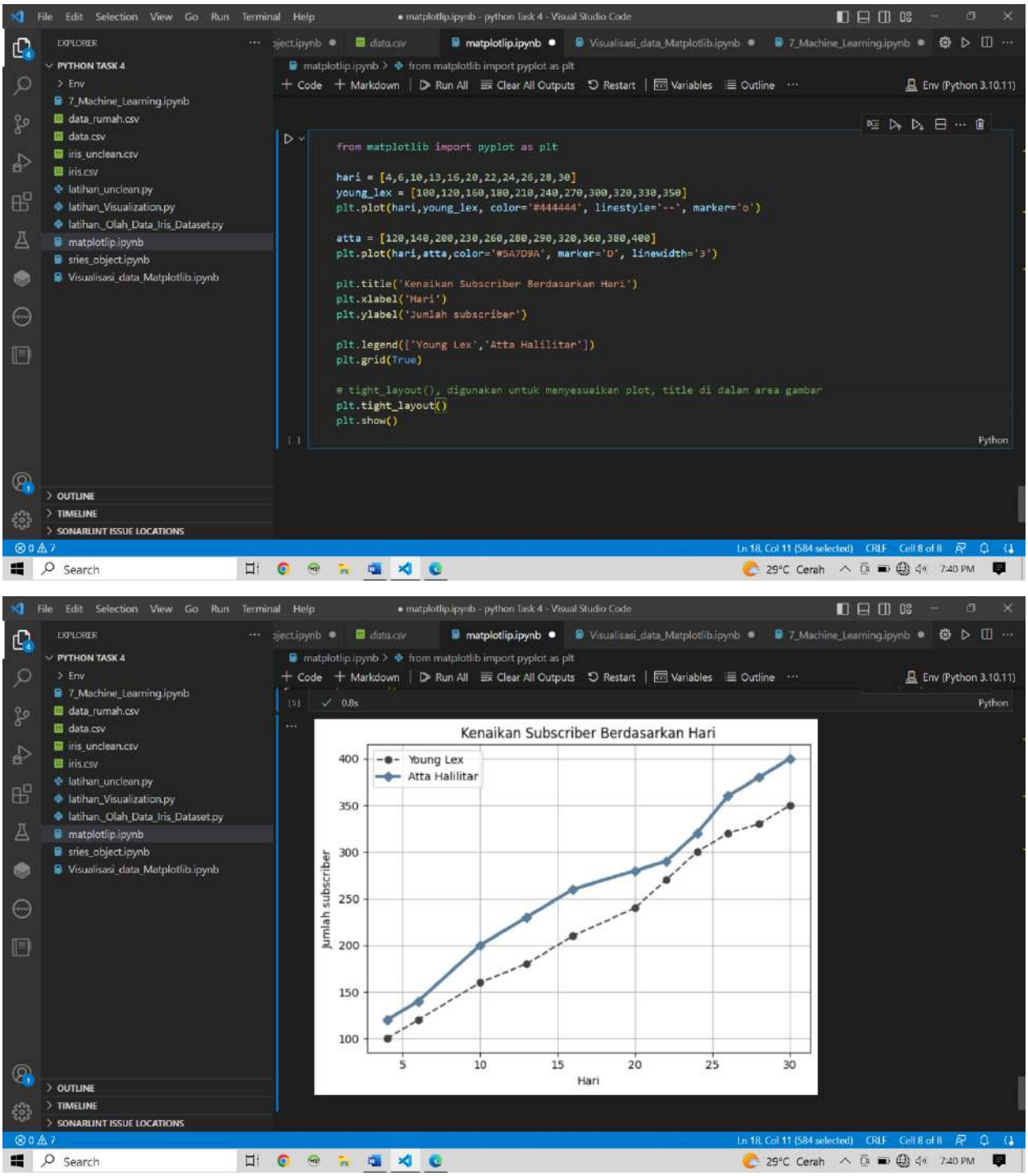
Gambar Linewidth

7. Grid


File Edit Selection View Go Run Terminal Help
• matplotlip.ipynb - python Task 4 - Visual Studio Code
EXPLORER
PYTHON TASK 4
Env
7_Machine_Learning.ipynb
data_rumah.csv
data.csv
iris_unclean.csv
iris.csv
latihan_unclean.py
latihan_Visualization.py
latihan_Olah_Data_Iris_Dataset.py
matplotlip.ipynb
sries_object.ipynb
Visualisasi_data_Matplotlib.ipynb
matplotlip.ipynb > from matplotlib import pyplot as plt
+ Code + Markdown | Run All Clear All Outputs Restart | Variables Outline
Env (Python 3.10.11)
from matplotlib import pyplot as plt
hari = [4,6,10,13,16,20,22,24,26,28,30]
young_lex = [100,120,160,180,210,240,270,300,320,330,350]
plt.plot(hari,young_lex, color='#444444', linestyle='--', marker='o')
atta = [120,140,200,230,260,280,290,320,360,380,400]
plt.plot(hari,atta,color='#5A7D9A', marker='D', linewidth='3')
plt.title('Kenaikan Subscriber Berdasarkan Hari')
plt.xlabel('Hari')
plt.ylabel('Jumlah subscriber')
plt.legend(['Young Lex','Atta Halilitar'])
# grid, untuk menampilkan layout grid (susunan vertikal dan horizontal)
plt.grid(True)
plt.show()
Python
OUTLINE
TIMELINE
SONARLINT ISSUE LOCATIONS
Ln 18, Col 11 CRLF Cell 7 of 7
Search
29°C Cerah
7:35 PM

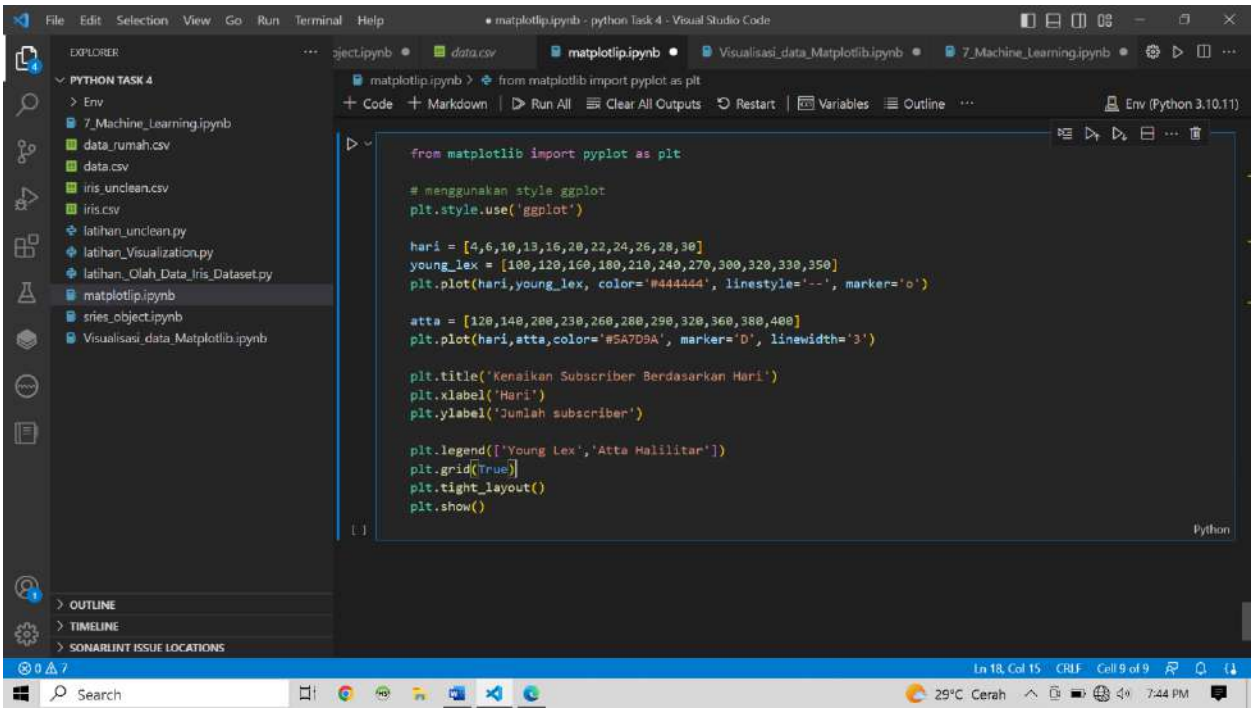

File Edit Selection View Go Run Terminal Help
• matplotlip.ipynb - python Task 4 - Visual Studio Code
EXPLORER
PYTHON TASK 4
matplotlip.ipynb > from matplotlib import pyplot as plt
+ Code + Markdown | Run All Clear All Outputs Restart | Variables Outline
Env (Python 3.10.11)
# grid, untuk menampilkan layout grid (susunan vertikal dan horizontal)
plt.grid(True)
plt.show()
0.5s
Python
Kenaikan Subscriber Berdasarkan Hari
Young Lex
Atta Halilitar
Jumlah subscriber
Hari
100
150
200
250
300
350
400
5
10
15
20
25
30
OUTLINE
TIMELINE
SONARLINT ISSUE LOCATIONS
Ln 18, Col 11 CRLF Cell 7 of 7
Search
29°C Cerah
7:36 PM

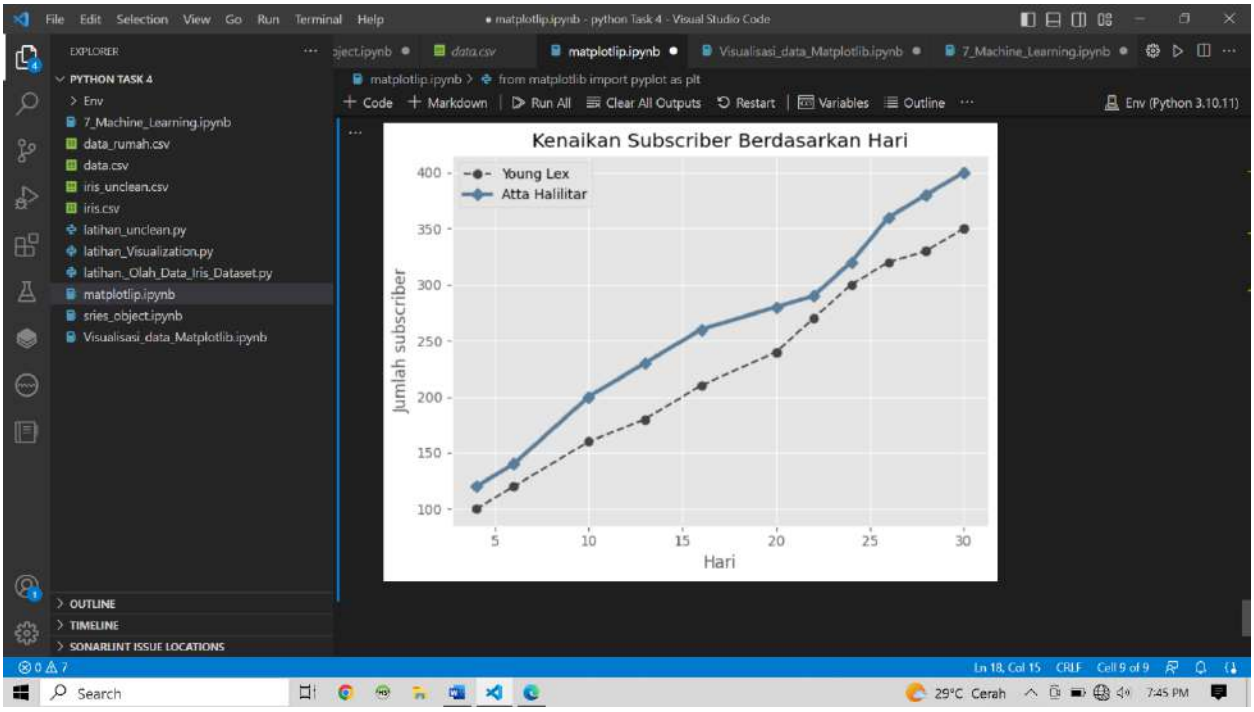
8. Menggunakan Style (fivethirtyeight) dan Tight Layout



Gambar. Style dan Tight Layout

9. Menggunakan Style ggplot

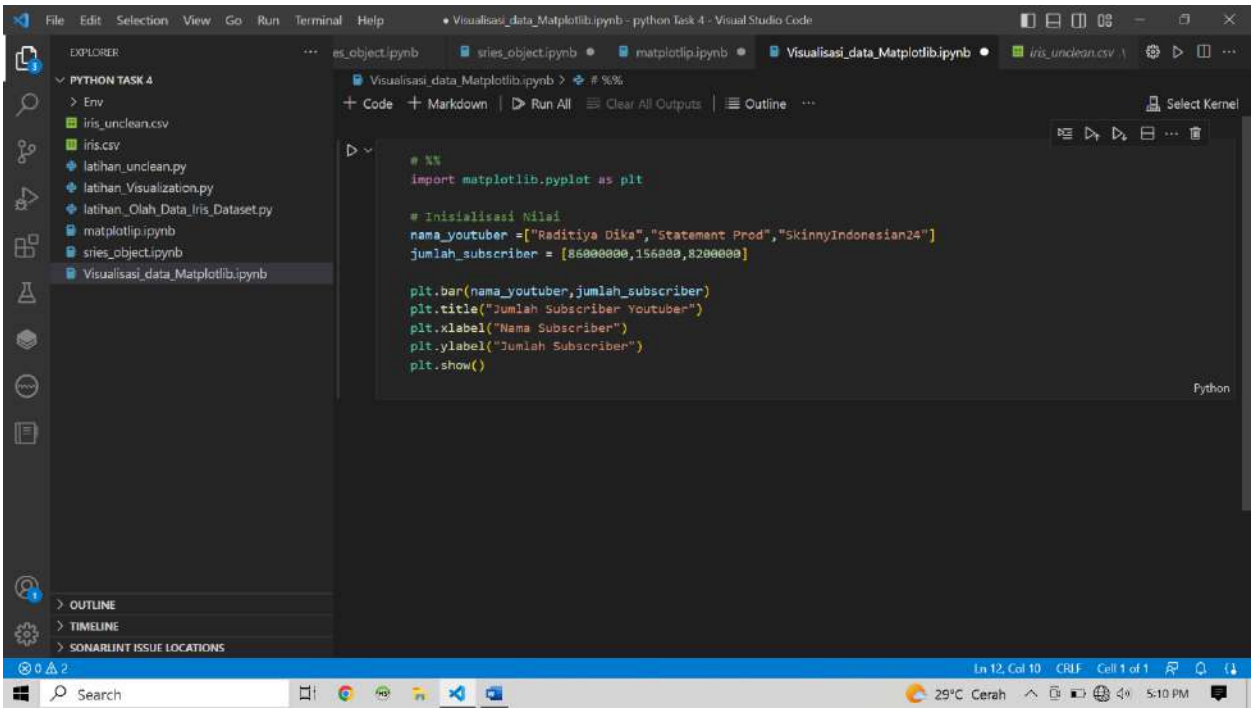


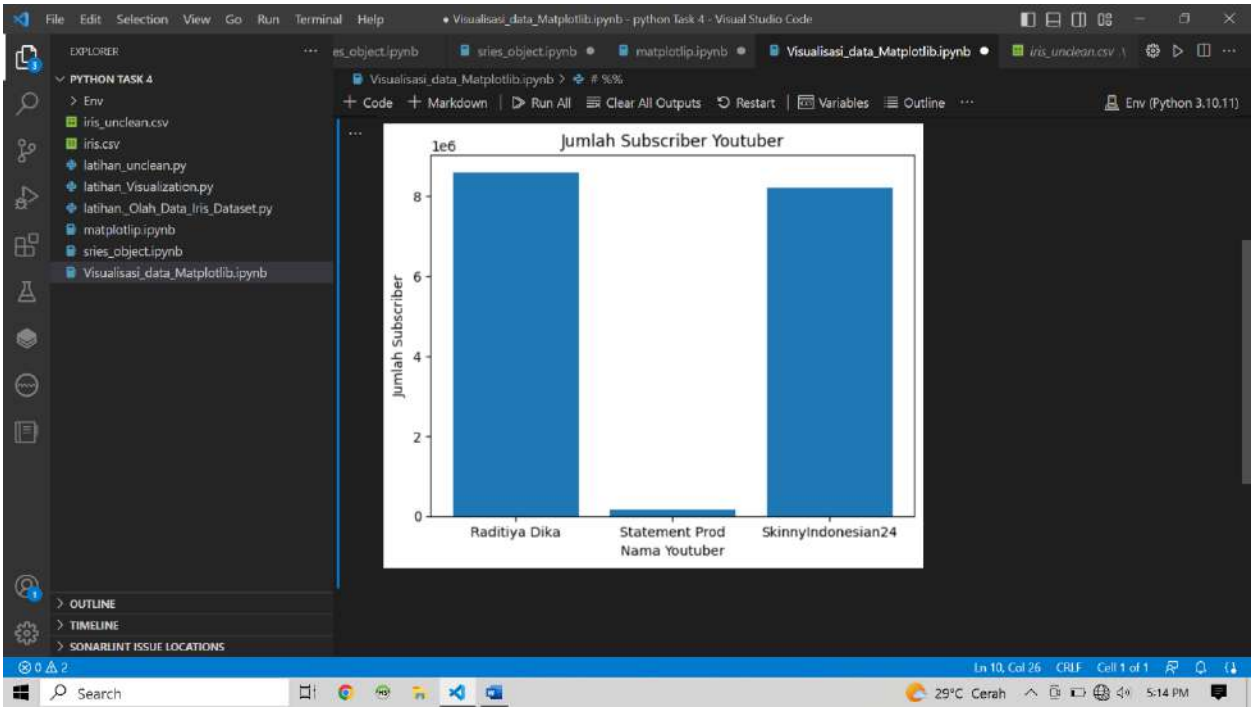


Gambar. Style ggplot

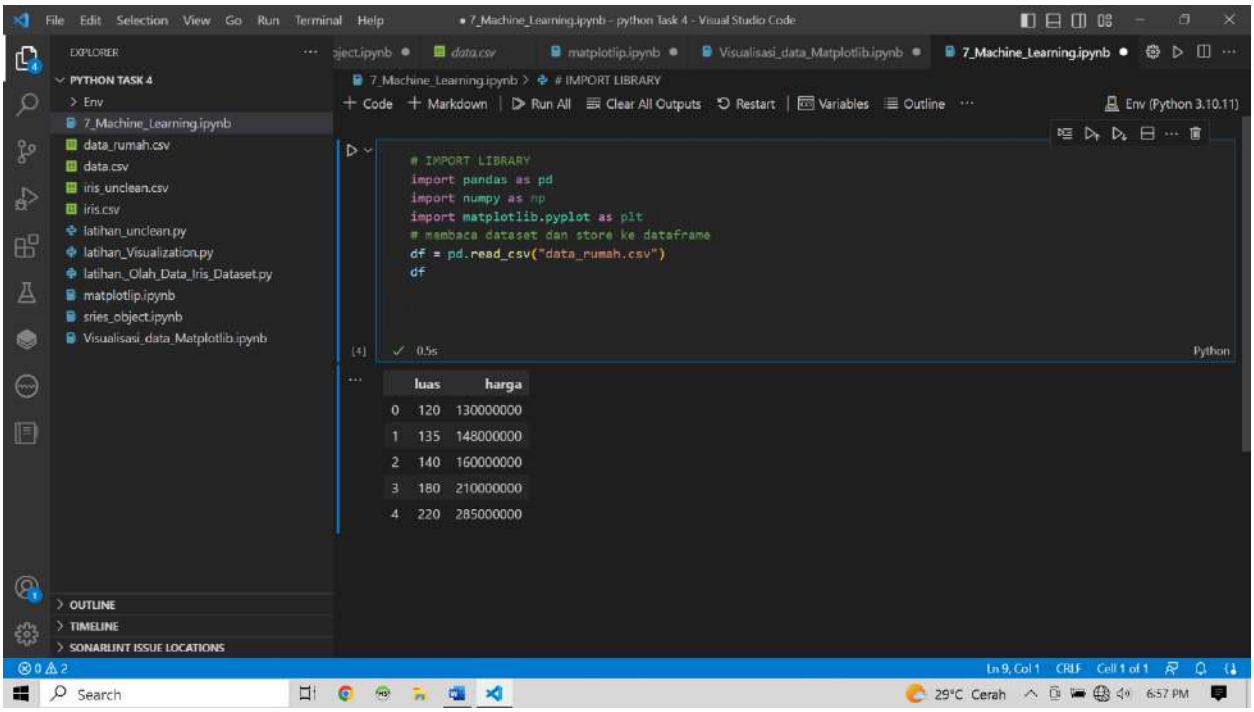
6-Visualisasi Data_Matplotlib Import CSV (contoh 2)

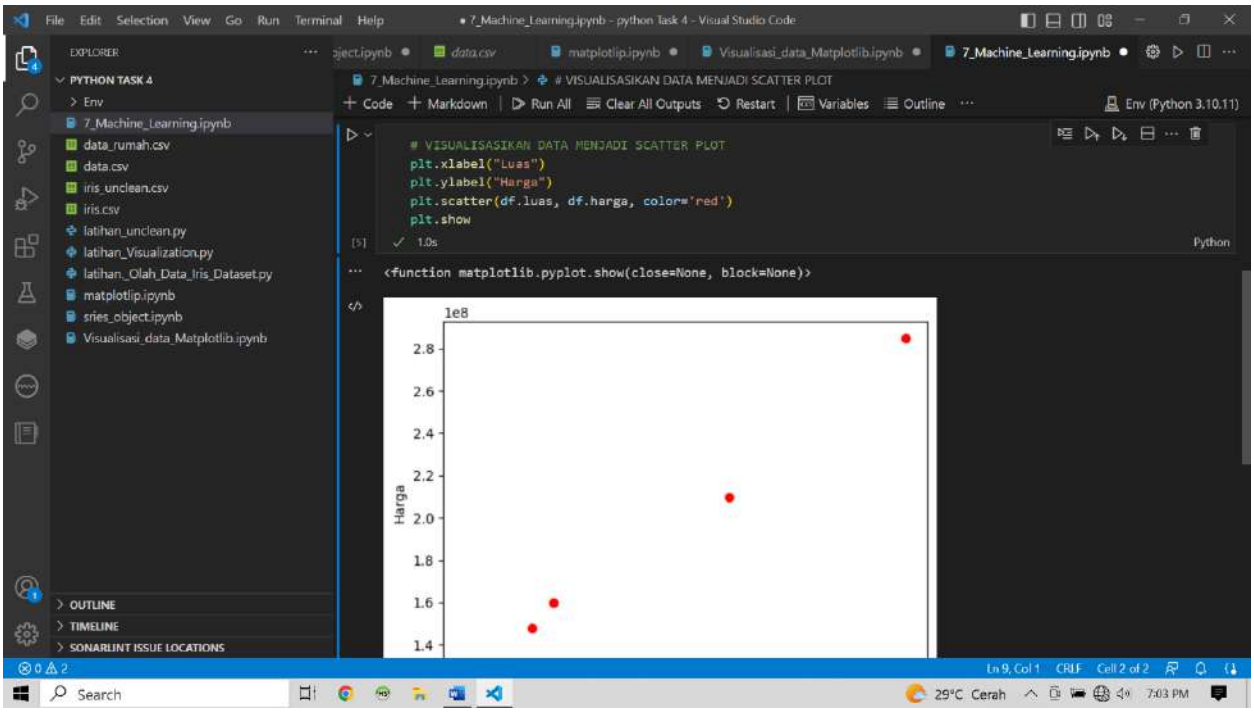
1. Contoh Plot Dasar

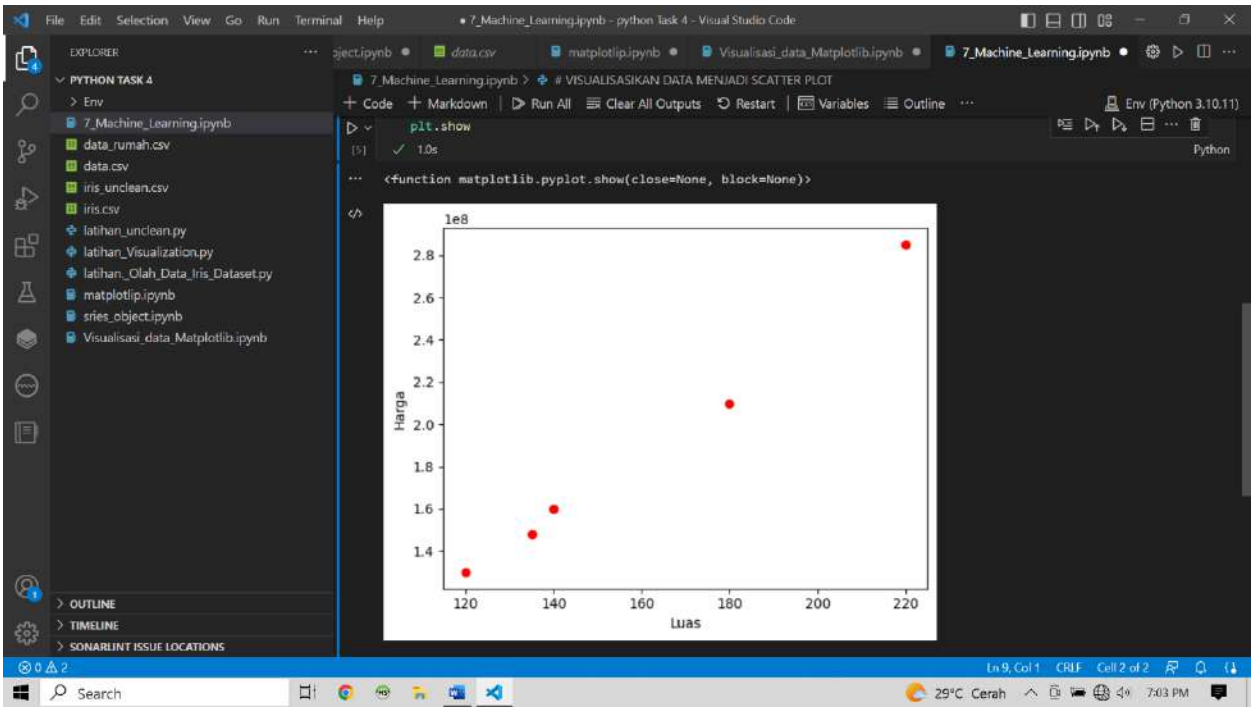




7-Machine Learning _Prediksi Harga Rumah dengan Regresi Linier (Satu Variable)






File Edit Selection View Go Run Terminal Help
• 7_Machine_Learning.ipynb - python Task 4 - Visual Studio Code
EXPLORER
PYTHON TASK 4
Env
7_Machine_Learning.ipynb
data_rumah.csv
data.csv
iris_unclean.csv
iris.csv
latihan_unclean.py
latihan_Visualization.py
latihan_Olah_Data_Iris_Dataset.py
matplotlip.ipynb
sries_object.ipynb
Visualisasi_data_Matplotlib.ipynb
OUTLINE
TIMELINE
SONARLINT ISSUE LOCATIONS
7_Machine_Learning.ipynb > # VISUALISASIKAN DATA MENJADI SCATTER PLOT
Code Markdown Run All Clear All Outputs Restart Variables Outline
Env (Python 3.10.11)
plt.show
1.0s
Python
<function matplotlib.pyplot.show(close=None, block=None)>
1e8
2.8
2.6
2.4
2.2
2.0
1.8
1.6
1.4
Harga
120
140
160
180
200
220
Luas
Ln 9, Col 1 CRLF Cell 2 of 2
Search
29°C Cerah
7:03 PM