Bankit con SQLite

```
import sqlite3, pandas , matplotlib.pyplot as plt, seaborn as sns, os, pandas as pd
os.chdir('D:/files/csv/Bankit')
conn = sqlite3.connect("D:/files/csv/Bankit/Bankit.db")
```

df = pd.read_sql_table('TDB20295', 'sqlite:///D:/files/csv/Bankit/Bankit.db') df = df[['DATA_OSS','LOC_CTP','SET_CTP','VALORE']].sort_values(by = 'DATA_OSS', ascending = True) stamen = pd.read_sql_table('DOMAIN_STAMEN', 'sqlite:///D:/files/csv/Bankit/Bankit.db'

TDB20295

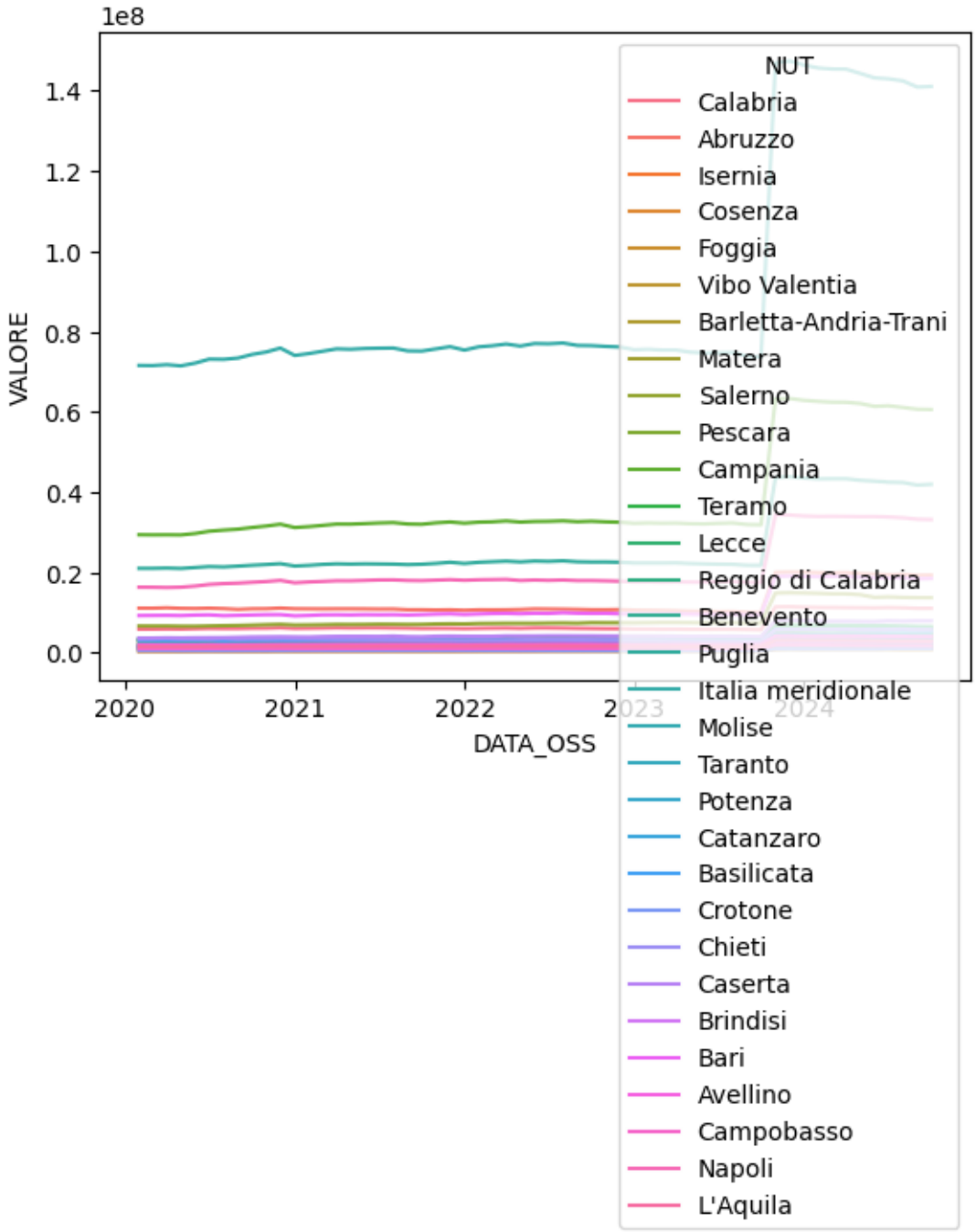
```
sql = """SELECT data_oss, ENTE_SEGN, LOC_CTP, set_ctp, valore, b.descrizione NUT,c.descrizion
left JOIN DOMAIN_STAMEN b ON a.LOC_CTP = b.Elemento left JOIN DOMAIN_STAMEN c ON a.set_CTP =
where DATA_OSS > '2020-01-01 00:00:00' order by 1"""
df = pandas.read_sql(sql, conn)
df['DATA_OSS'] = pd.to_datetime(df['DATA_OSS'])

area =df.query('LOC_CTP.str.contains("ITF") and SET_CTP == "SBI25"')[['DATA_OSS','NUT','VALO
#Umbria.query('NUT =="Umbria"').sort_values(by = 'DATA_OSS', ascending = False)
```

```
sns.lineplot(x = "DATA_OSS", y = "VALORE", hue = "NUT", data = area);
```

```
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1119: Fu
  with pd.option_context('mode.use_inf_as_na', True):
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1119: Fu
  with pd.option_context('mode.use_inf_as_na', True):
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
```

```
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
```

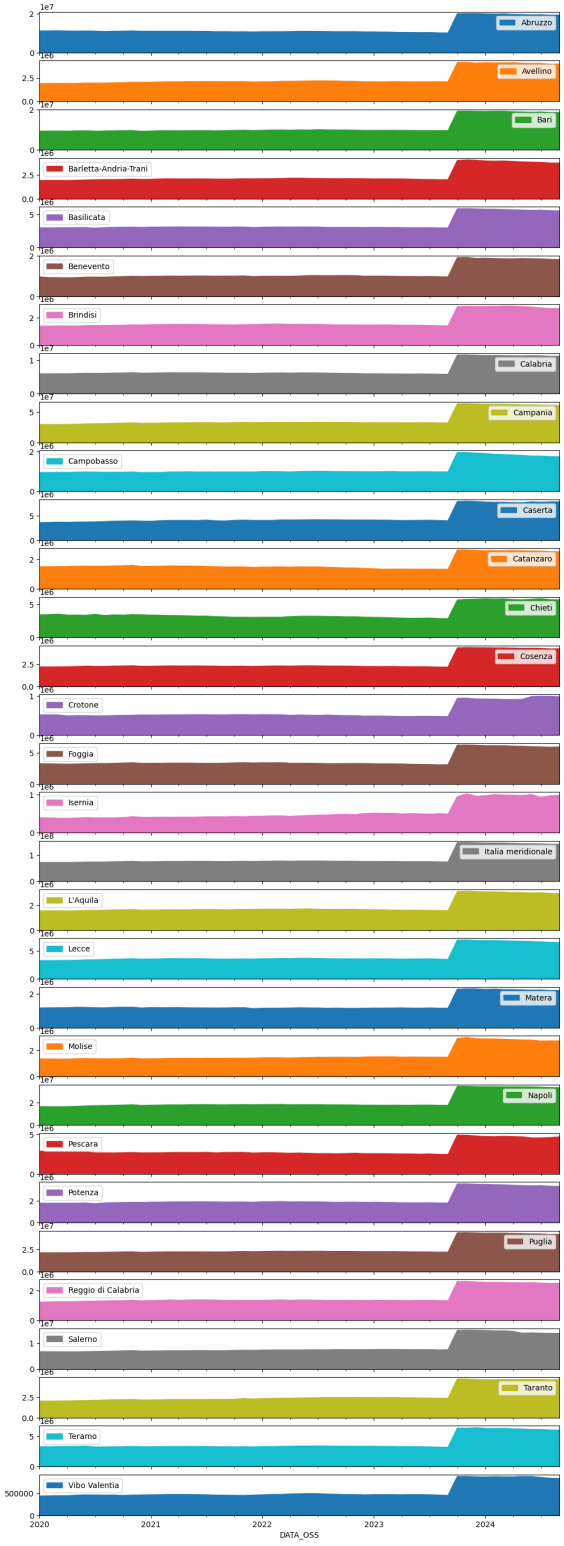
```
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
C:\Users\PVolterr\AppData\Roaming\Python\Python311\site-packages\seaborn\_oldcore.py:1075: Fu
  data_subset = grouped_data.get_group(pd_key)
```


1e8
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
VALORE
2020
2021
2022
2023
2024
DATA_OSS
NUT
Calabria
Abruzzo
Isernia
Cosenza
Foggia
Vibo Valentia
Barletta-Andria-Trani
Matera
Salerno
Pescara
Campania
Teramo
Lecce
Reggio di Calabria
Benevento
Puglia
Italia meridionale
Molise
Taranto
Potenza
Catanzaro
Basilicata
Crotone
Chieti
Caserta
Brindisi
Bari
Avellino
Campobasso
Napoli
L'Aquila

```
area
```

	DATA_OSS	NUT	VALORE
35	2020-01-31	Calabria	5841016.0
44	2020-01-31	Abruzzo	11080835.0
186	2020-01-31	Isernia	388075.0
197	2020-01-31	Cosenza	2179939.0
272	2020-01-31	Foggia	3206372.0
...	...	...	...
166730	2024-09-30	Cosenza	4233104.0
166746	2024-09-30	Pescara	4670490.0
166786	2024-09-30	L'Aquila	2893489.0
167003	2024-09-30	Taranto	4708485.0
167048	2024-09-30	Puglia	41936569.0

```
df_pivot  = area.pivot(index="DATA_OSS", columns="NUT", values="VALORE").reset_index()
axs = df_pivot.plot.area(x="DATA_OSS", figsize=(12, 35), subplots=True, legend=True)
plt.show()
```


Abruzzo
Avellino
Bari
Barletta-Andria-Trani
Basilicata
Benevento
Brindisi
Calabria
Campania
Campobasso
Caserta
Catanzaro
Chieti
Cosenza
Crotone
Foggia
Isernia
Italia meridionale
L'Aquila
Lecce
Matera
Molise
Napoli
Pescara
Potenza
Puglia
Reggio di Calabria
Salerno
Taranto
Teramo
Vibo Valentia
2020
2021
2022
2023
2024
DATA_OSS

TFR20231

```
sql = """SELECT data_oss, ENTE_SEGN, LOC_CTP, set_ctp, valore, b.descrizione NUT,c.descrizio
left JOIN DOMAIN_STAMEN b ON a.LOC_CTP = b.Elemento left JOIN DOMAIN_STAMEN c ON a.set_CTP =
df = pandas.read_sql(sql, conn)
df['DATA_OSS'] = pd.to_datetime(df['DATA_OSS'])

Umbria =df.query('LOC_CTP.str.contains("ITI2") and SET_CTP == "SBI25"')[['DATA_OSS','NUT','V
Umbria.query('NUT =="Umbria"').sort_values(by = 'DATA_OSS', ascending = False).head()
```

	DATA_OSS	NUT	VALORE
101	2024-06-30	Umbria	-3.7
166	2024-03-31	Umbria	-3.5
336	2023-12-31	Umbria	-4.6
526	2023-09-30	Umbria	-8.2
574	2023-06-30	Umbria	-6.0