Python code :

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns

df=pd.read_csv("comm.csv")
print(df.head())
print(df.info())
print(df.describe())
'''
#Total stock Commodity Stock and Stock have null values
null_num = ['Total_stock','Commodity_Stock','Stock']

for col in null_num :
    df[col].fillna(df[col].mean(),inplace=True)

df['Date'] = pd.to_datetime(df['Date'], format='%d-%m-%Y')
print(df.info())
print(df['District_name'].head())
print(df['Code'].head())
print(df['Code'].tail())
df['Code'] = df['Code'].str.replace('Region Name: ','',regex=False)
print(df['Code'].head())
print(df['Code'].tail())

#bar plot on Commodity_name and Total_stock
plt.figure(figsize=(8,4))
sns.barplot(data=df, x='Commodity_name', y='Total_stock', hue='Commodity_name',
palette='coolwarm', legend=True)
```

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plt.xlabel("Commodity Name")
plt.ylabel("Total Stock")
plt.title("Commodity Name VS Total Stock")
plt.show()

#scatter plot on Total_stock on Commodity_stock
plt.figure(figsize=(8,4))
sns.scatterplot(data=df,x='Total_stock',y='Commodity_Stock',hue='Commodity_name')
plt.xlabel("Total Stock")
plt.ylabel("Commodity Stock")
plt.title("Total Stock VS Commodity Stock")
plt.show()



#top 10 district names with average stock
plt.figure(figsize=(8,4))
top_districts = df.groupby('District_name')['Stock'].mean().sort_values(ascending=False).head(10)
sns.barplot(x=top_districts.values, y=top_districts.index,hue=top_districts,
palette='coolwarm',legend=False)
plt.title('Top 10 Districts by Average Stock')
plt.show()

#Top 10 Code Total Stock
plt.figure(figsize=(8,4))
top_codes = df.groupby('Code')['Total_stock'].mean().sort_values(ascending=False).head(10)
sns.lineplot(x=top_codes.values, y=top_codes.index, palette='viridis')
plt.title('Top 10 Code by Average Total Stock')
plt.show()

#Top 3 commoditites by Total Stock
plt.figure(figsize=(8,4))
```

```
tot_com_name =
df.groupby("Commodity_name")["Commodity_Stock"].sum().sort_values(ascending=False).head(3)

plt.figure(figsize=(8,4))

plt.pie(tot_com_name, labels=tot_com_name.index, autopct='%1.1f%%', startangle=180)

plt.title('Top 3 Commodities by Total Stock')

plt.show()




#heat map 0f Commodity Stock,Total stock and Stock

plt.figure(figsize=(8,4))

corr_matrix = df[['Commodity_Stock','Total_stock','Stock']].corr()

plt.figure(figsize=(6,4))

sns.heatmap(corr_matrix,annot=True,cmap='coolwarm',linewidths=0.5)

plt.show()

'''


numeric_cols = df[['Total_stock', 'Commodity_Stock', 'Stock']]

# Create the pairplot

plt.figure(figsize=(8,4))

sns.pairplot(numeric_cols, diag_kind='kde', corner=True)

plt.suptitle('Pairplot of Stock Metrics', y=1.02)

plt.show()
```