**1-import matplotlib.pyplot as plt**

**from matplotlib.figure import Figure**

**import pandas as pd**

**import numpy as np**

**import seaborn as sns**

**2-df=pd.read\_csv('dataset\_Facebook.csv',sep=';') 3-df.head(5)**

**4-ts=df.groupby('Type')['share'].sum()**

**ts**

**5-ts.plot.pie(label=('Type'),title="PIE CHART WITH PERCENTAGE",colormap='brg', autopct='%1.0f%%')**

**6-ts = pd.pivot\_table(df, index=['Type'], columns=['Paid'], values=['share'], aggfunc='count')**

**ts**

**7-plt.figure();**

**ts.plot.pie(title='MULTIPLE PIE CHARTS', colors=['darkcyan','orange','yellowgreen'],autopct='%.1f%%', subplots=True)**

**8-x=df['Type']**

**y=df['share']**

**plt.bar(x,y)**

**plt.xlabel('Type')**

**plt.ylabel('Total Share')**

**plt.show**

**9-plt.figure(figsize=(7,7))**

**objects = ('January', 'February', 'March', 'April','May','June','July','August','September','October','November','December')**

**y\_pos = np.arange(len(objects))**

**plt.bar(y\_pos, df.loc[:,'Post Month'].value\_counts().values)**

**plt.xticks(y\_pos, objects, rotation=70)**

**plt.ylabel('Number of posts')**

**plt.title('Number of posts for each month')**

**10-plt.figure(figsize=(7,7))**

**objects = ('Monday', 'Tuesday', 'Wednesday', 'Thursday','Friday','Saturday','Sunday')**

**y\_pos = np.arange(len(objects))**

**plt.bar(y\_pos, df.loc[:,'Post Weekday'].value\_counts().values)**

**plt.xticks(y\_pos, objects, rotation=70)**

**plt.ylabel('Number of posts')**

**plt.title('Number of posts for each weekday')**

**11-plt.figure(figsize=(14,8))**

**sns.distplot(df[df['like']<1000]['like'],bins=20,color='dodgerblue',hist\_kws={'alpha':0.6})**

**plt.xlim(0,1000)**

**plt.xlabel("# of Likes",fontsize=15)**

**plt.ylabel('Frequency',fontsize=15)**

**plt.title('Distribution of Like/Post',fontsize=20)**

**12-plt.figure(figsize=(5,5))**

**sns.countplot(x='Post Month',hue='Paid',data=df)**

**plt.title("Number of posts: Free vs Paid per Month")**

**plt.figure(figsize=(5,5))**

**sns.countplot(x='Post Weekday',hue='Paid',data=df)**

**plt.title("Number of posts: Free vs Paid per Weekday")**

**13-plt.figure(figsize=(8,6))**

**sns.countplot(x='Category',data=df,palette='viridis')**

**plt.ylabel("# of Likes")**

**plt.title("Number of Likes vs. Post Category")**

**plt.savefig('catCount.png', bbox\_inches='tight')**

**14-plt.figure(figsize=(10,6))**

**sns.countplot(x='Type',data=df,palette='viridis')**

**plt.title("Number of Posts by Type")**

**plt.ylabel("# of likes")**

**plt.savefig('typeCount.png', bbox\_inches='tight')**

**15-plt.figure(figsize=(7,7))**

**sns.countplot(x='Type',hue='Paid',data=df)**

**plt.title("Number of posts: Paid vs Not Paid")**

**plt.ylabel("Number of posts")**

**16-plt.figure(figsize=(10,6))**

**sns.boxplot(x='Type',y='like',data=df,palette='viridis')**

**plt.ylim(0,750)**

**plt.title("Likes/Post by Post Type")**

**plt.ylabel("# of likes")**

**plt.savefig('typeBox.png', bbox\_inches='tight')**

**17-plt.figure(figsize=(8,6))**

**sns.boxplot(x='Category',y='like',data=df,hue='Paid',palette='viridis')**

**plt.ylim(0,750)**

**plt.ylabel("# of likes")**

**plt.legend(loc='upper left')**

**plt.title("Likes/Post by Category and if Posts were Paid")**

**plt.savefig('catPaidCount.png', bbox\_inches='tight')**

**18-plt.hist(df.loc[:,'comment'])**

**plt.title("Comments per post distribution")**

**19-df.isnull().sum() 20-df = df.dropna(subset=['Paid']) 21-plt.hist(df.loc[:,'like'])**

**plt.title("Likes per post distribution")**

**22-x=df['Post Weekday']**

**y=df['comment']**

**plt.scatter(x, y)**

**23-x=df['Post Weekday']**

**y=df['like']**

**plt.scatter(x, y, color = 'hotpink',marker ="^")**

**x=df['Post Weekday']**

**y=df['share']**

**plt.scatter(x, y,color = '#88c999',marker ="s")**

**24-sns.catplot(x='Type',y='share',data=df)**

**25-x=df['share']**

**y=df['like']**

**plt.plot(x,y)**

**plt.title("Linear graph", fontsize =25, color="green")**

**plt.xlabel("X Data")**

**plt.ylabel("Y Data")**