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#Q1
#import the library
import pandas as pd
#create an empty data frame with columns names
df = pd.DataFrame(columns=['Name','Age','Percentage'])
#Add records
df.loc[0] = ['Izuku',21,80]
df.loc[1] = ['Kurosaki',24,70]
df.loc[2] = ['Sasuke',31,67]
df.loc[3] = ['Shoto',22,78]
df.loc[4] = ['Reigen',38,98]
df.loc[5] = ['Violet',26,76]
df.loc[6] = ['Bakugo',22,74]
df.loc[7] = ['Tobio',23,69]
df.loc[8] = ['Koyomi',23,79]
df.loc[9] = ['Shigeo',25,88]
df

#Q2 print shape
df.shape

#Q2 print row and columns,data-types
df.info()

#Q3 print basic statistical details of the data
df.describe()

#Q4 add 5 rows with duplicate values and missing values.
df.loc[10] = ['Bakugo',None,74]
df.loc[11] = ['Onizuka',26,76]
df.loc[12] = ['Sasuke',None,None]
df.loc[13] = ['Shigeo',24,70]
df.loc[14] = ['Kaguya',None,None]
#Insert empty column
df["remarks"] = None
df

#Q5 to get no.of observations,missing values and duplicate values
df.isnull()

df.duplicated()

#Q6 to drop 'remarks' column from the dataframe. also drop all null and empty
values. print the modified data.
df.drop(columns='remarks',axis=1,inplace=True)
df

#drop all null and empty values.
df.dropna()

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#Q7 To generate line plot of name vs percentage
import matplotlib.pyplot as plt
df.plot(x='Name',y='Percentage')
plt.title('cmparation between name and percentage')
plt.show()
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#Q8 To generate a scatter plot of name vs percentage
import matplotlib.pyplot as plt
plt.scatter(df['Name'],df['Percentage'])
plt.show()
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