import pandas as pd
import numpy as np

Part 1 group by

df1=pd.read_csv('/content/weather_by_cities.csv')

df1

₽		day	city	temperature	windspeed	event	1
	0	1/1/2021	new york	32	6	Rain	
	1	1/2/2021	new york	36	7	Sunny	
	2	1/3/2021	new york	28	12	Snow	
	3	1/4/2021	new york	33	7	Sunny	
	4	1/1/2021	mumbai	90	5	Sunny	
	5	1/2/2021	mumbai	85	12	Fog	
	6	1/3/2021	mumbai	87	15	Fog	
	7	1/4/2021	mumbai	92	5	Rain	
	8	1/1/2021	paris	45	20	Sunny	
	9	1/2/2021	paris	50	13	Cloudy	
	10	1/3/2021	paris	54	8	Cloudy	
	11	1/4/2021	paris	42	10	Cloudy	

df1.describe()

temperature windspeed



g_city=df1.groupby('city')

mean ๖๐.ๅ๐๐๐๐ ๅฃ.ฃฃฃฃฃ

g_city.get_group('mumbai')

	day	city	temperature	windspeed	event	1
4	1/1/2021	mumbai	90	5	Sunny	
5	1/2/2021	mumbai	85	12	Fog	
6	1/3/2021	mumbai	87	15	Fog	
7	1/4/2021	mumbai	92	5	Rain	

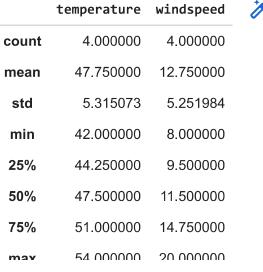
g_city.get_group('mumbai').describe()

	temperature	windspeed	1
count	4.000000	4.000000	
mean	88.500000	9.250000	
std	3.109126	5.057997	
min	85.000000	5.000000	
25%	86.500000	5.000000	
50%	88.500000	8.500000	
75%	90.500000	12.750000	
max	92.000000	15.000000	

g_city.get_group('paris')

	day	city	temperature	windspeed	event	1
8	1/1/2021	paris	45	20	Sunny	
9	1/2/2021	paris	50	13	Cloudy	
10	1/3/2021	paris	54	8	Cloudy	
11	1/4/2021	paris	42	10	Cloudy	

g_city.get_group('paris').describe()



g_city.get_group('new york')

	day	city	temperature	windspeed	event	1
0	1/1/2021	new york	32	6	Rain	
1	1/2/2021	new york	36	7	Sunny	
2	1/3/2021	new york	28	12	Snow	
3	1/4/2021	new york	33	7	Sunny	

g_city.get_group('new york').describe()

	temperature	windspeed	1
count	4.000000	4.000000	
mean	32.250000	8.000000	
std	3.304038	2.708013	
min	28.000000	6.000000	
25%	31.000000	6.750000	
50%	32.500000	7.000000	
75%	33.750000	8.250000	
max	36.000000	12.000000	

Part 2 (Only the iris dataset part)

df=pd.read_csv('/content/Iris.csv')

array(['Iris-setosa', 'Iris-versicolor', 'Iris-virginica'], dtype=object)

g_species=df.groupby('Species')

g_species.describe()

	Id SepalLengthC					engthCm	• • •				
	count	mean	std	min	25%	50%	75%	max	count	mean	• • •
Species											
Iris- setosa	50.0	25.5	14.57738	1.0	13.25	25.5	37.75	50.0	50.0	5.006	
lris- versicolor	50.0	75.5	14.57738	51.0	63.25	75.5	87.75	100.0	50.0	5.936	
Iris-											•

g_species.get_group('Iris-setosa').describe()

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm	7
count	50.00000	50.00000	50.000000	50.000000	50.00000	
mean	25.50000	5.00600	3.418000	1.464000	0.24400	
std	14.57738	0.35249	0.381024	0.173511	0.10721	
min	1.00000	4.30000	2.300000	1.000000	0.10000	
25%	13.25000	4.80000	3.125000	1.400000	0.20000	
50%	25.50000	5.00000	3.400000	1.500000	0.20000	
75%	37.75000	5.20000	3.675000	1.575000	0.30000	
max	50.00000	5.80000	4.400000	1.900000	0.60000	

g_species.get_group('Iris-versicolor').describe()

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	50.00000	50.000000	50.000000	50.000000	50.000000
mean	75.50000	5.936000	2.770000	4.260000	1.326000
std	14.57738	0.516171	0.313798	0.469911	0.197753

g_species.get_group('Iris-virginica').describe()

	Id	SepalLengthCm	SepalWidthCm	PetalLengthCm	PetalWidthCm
count	50.00000	50.00000	50.000000	50.000000	50.00000
mean	125.50000	6.58800	2.974000	5.552000	2.02600
std	14.57738	0.63588	0.322497	0.551895	0.27465
min	101.00000	4.90000	2.200000	4.500000	1.40000
25%	113.25000	6.22500	2.800000	5.100000	1.80000
50%	125.50000	6.50000	3.000000	5.550000	2.00000
75%	137.75000	6.90000	3.175000	5.875000	2.30000
max	150.00000	7.90000	3.800000	6.900000	2.50000

