In [35]:
```
import pandas as pd

weather_data = {
    'day': ['1/1/2017','1/2/2017','1/3/2017','1/4/2017','1/5/2017','1/6/2017'],
    'temperature': [32,35,28,24,32,31],
    'windspeed': [6,7,2,7,4,2],
    'event': ['Rain', 'Sunny', 'Snow','Snow','Sunny', 'Sunny']
}
df = pd.DataFrame(weather_data)
df
```

Out[35]:

	day	temperature	windspeed	event
0	1/1/2017	32	6	Rain
1	1/2/2017	35	7	Sunny
2	1/3/2017	28	2	Snow
3	1/4/2017	24	7	Snow
4	1/5/2017	32	4	Sunny
5	1/6/2017	31	2	Sunny

In [2]:
```
df.describe()
```

Out[2]:

	temperature	windspeed
count	6.000000	6.000000
mean	30.333333	4.666667
std	3.829708	2.338090
min	24.000000	2.000000
25%	28.750000	2.500000
50%	31.500000	5.000000
75%	32.000000	6.750000
max	35.000000	7.000000

In [4]:
```
df.shape
```

Out[4]:
```
(6, 4)
```

In [5]:
```
newdf = df[2:5]
newdf
```

Out[5]:

	day	temperature	windspeed	event
2	1/3/2017	28	2	Snow
3	1/4/2017	24	7	Snow
4	1/5/2017	32	4	Sunny

In [8]:
```
newdf = df.iloc[2:5 , :-1]
newdf
```

Out[8]:

	day	temperature	windspeed
2	1/3/2017	28	2
3	1/4/2017	24	7
4	1/5/2017	32	4

In [14]:
```
df.head(2)
```

Out[14]:

	day	temperature	windspeed	event
0	1/1/2017	32	6	Rain
1	1/2/2017	35	7	Sunny

In [13]:
```
df.tail(2)
```

Out[13]:

	day	temperature	windspeed	event
4	1/5/2017	32	4	Sunny
5	1/6/2017	31	2	Sunny

In [15]:
```
df.event
```

Out[15]:
```
0     Rain
1    Sunny
2     Snow
3     Snow
4    Sunny
5    Sunny
Name: event, dtype: object
```

In [16]:
```
df.day
```

Out[16]:
```
0    1/1/2017
1    1/2/2017
2    1/3/2017
3    1/4/2017
4    1/5/2017
5    1/6/2017
Name: day, dtype: object
```

In [17]:
```
df.temperature
```

Out[17]:
```
0    32
1    35
2    28
3    24
4    32
5    31
Name: temperature, dtype: int64
```

In [18]:
```
df.windspeed
```

Out[18]:
```
0    6
1    7
2    2
3    7
4    4
5    2
Name: windspeed, dtype: int64
```

In [21]:
```
discipline = df[["day","event"]]
discipline
```

Out[21]:

	day	event
0	1/1/2017	Rain
1	1/2/2017	Sunny
2	1/3/2017	Snow
3	1/4/2017	Snow
4	1/5/2017	Sunny
5	1/6/2017	Sunny

In [31]:
```
print(df.temperature.mean())
print(df.temperature.median())
print(df.temperature.memory_usage())
print(df.temperature.std())
print(df.temperature.max())
print(df.temperature.min())
```

```
30.333333333333332
31.5
176
3.8297084310253524
35
24
```

In [39]:
```
len(df["windspeed"])
```

Out[39]:
```
6
```

In [46]:
```
len(df[ df['temperature'] < 30 ])
```

Out[46]:
```
2
```

In [48]:
```
df.count()
```

Out[48]:
```
day            6
temperature    6
windspeed      6
event          6
dtype: int64
```

In [3]:
```
import pandas as pd

columns = []
data = dict()

num = int(input("please enter the number of columns"))
while(num > 0):
    columns.append(input("please enter the column name: "))
    num -=1

for i in columns:
    data[i] = []

rows = int(input("please enter the number of rows: "))
while(rows > 0):
    for i in data:
        value = input(f"please enter the value of {i}: ")
        data[i].append(value)

    rows-=1
dataframe = pd.DataFrame(data)
dataframe
```

```
please enter the value of J: FJ
```

Out[3]:

	A	B	C	D	E	F	G	H	I	J
0	1	2	3	4	5	6	7	8	9	10
1	A1	B2	C3	D4	E5	F6	G7	H8	I9	J10
2	10	20	30	40	50	60	70	80	90	100
3	-10	-20	-30	-40	-50	-60	-70	-80	-90	-100
4	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
5	BB	BA	BC	BD	BE	BF	BG	BI	BH	BJ
6	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ
7	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ
8	EA	EB	EC	ED	EF	EE	EG	EH	EI	EJ
9	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ

In [ ]:
```
```