In [1]:
```
import pandas as pd
df = pd.read_csv(r"C:\Users\joykaaria\Desktop\data weather.csv")
df
```

Out[1]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20
2	snow	1/3/2023	-51.0	45	21	11	20
3	snow	1/4/2023	-51.0	45	21	11	20
4	snow	1/5/2023	-51.0	45	21	11	20
5	snow	1/6/2023	-51.0	45	21	11	20
6	snow	1/7/2023	-51.0	45	21	11	20
7	snow	1/8/2023	-51.0	45	21	11	20
8	snow	1/9/2023	-51.0	45	21	11	30
9	snow	1/10/2023	-51.0	45	21	11	30
10	clear	1/11/2023	-51.0	45	21	19	30
11	clear	1/12/2023	-51.0	45	21	19	30
12	clear	1/13/2023	-51.0	45	30	19	25
13	clear	1/14/2023	-51.0	45	30	19	25
14	clear	1/15/2023	-51.0	45	40	25	25
15	clear	1/16/2023	-51.0	45	40	25	6
16	clear	1/17/2023	-51.0	45	40	25	6
17	clear	1/18/2023	-51.0	46	40	25	6
18	clear	1/19/2023	-3.0	45	40	25	6
19	clear	1/20/2023	-3.0	47	40	25	6
20	clear	1/21/2023	-3.0	47	40	25	30
21	clear	1/22/2023	-3.0	47	40	25	30
22	clear	1/23/2023	-3.0	47	40	25	30
23	clear	1/24/2023	-3.0	47	60	25	30
24	clear	1/25/2023	-3.0	47	60	25	30
25	drizzle	1/26/2023	-3.0	47	60	25	30
26	drizzle	1/27/2023	-3.0	47	60	25	30
27	drizzle	1/28/2023	-3.0	47	60	30	30
28	drizzle	1/29/2023	-3.0	47	60	30	30
29	drizzle	1/30/2023	-3.0	47	60	30	30
30	drizzle	1/31/2023	-3.0	67	60	30	30
31	drizzle	2/1/2023	-3.0	67	60	30	40
32	drizzle	2/2/2023	-3.0	67	60	30	40

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
33	freezing	2/3/2023	-3.0	67	60	30	40
34	freezing	2/4/2023	-3.0	67	42	30	40
35	freezing	2/5/2023	-3.0	67	42	30	40
36	freezing	2/6/2023	-3.0	67	42	30	40
37	freezing	2/7/2023	-3.0	67	42	30	40
38	freezing	2/8/2023	-3.0	67	42	30	40
39	freezing	2/9/2023	-3.0	67	42	25	40
40	freezing	2/10/2023	-3.0	67	42	30	40
41	freezing	2/11/2023	-3.0	67	42	40	40
42	freezing	2/12/2023	-3.0	67	42	40	40
43	freezing	2/13/2023	-3.0	4	42	40	40
44	rain	2/14/2023	-3.0	4	42	40	40
45	rain	2/15/2023	-1.8	4	42	40	40
46	frog	2/16/2023	-1.8	4	42	40	40
47	frog	2/17/2023	-1.8	4	42	40	40
48	frog	2/18/2023	-1.8	4	42	40	40

In [ ]:
```
.head()
```

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

Out[2]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20
2	snow	1/3/2023	-51.0	45	21	11	20
3	snow	1/4/2023	-51.0	45	21	11	20
4	snow	1/5/2023	-51.0	45	21	11	20

In [ ]:
```
.shape
```

In [3]:
```
df.shape
```

Out[3]:
```
(49, 7)
```

In [ ]:
```
.index
```

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

Out[4]:
```
RangeIndex(start=0, stop=49, step=1)
```

In [ ]:
```
.columns
```

In [5]:
```
df.columns
```

Out[5]:
```
Index(['weat_con', 'date', 'duetemp', 'rel_-hum', 'windspe', 'visibility',
       'pree_kpa'],
      dtype='object')
```

In [ ]:
```
.dtypes
```

In [6]:
```
df.dtypes
```

Out[6]:
```
weat_con       object
date           object
duetemp       float64
rel_-hum        int64
windspe         int64
visibility      int64
pree_kpa        int64
dtype: object
```

In [ ]:
```
.unique()  single column only
```

In [8]:
```
df['weat_con'].unique()
```

Out[8]:
```
array(['snow', 'clear', 'drizzle', 'freezing', 'rain', 'frog'],
      dtype=object)
```

In [9]:
```
df.nunique()
```

Out[9]:
```
weat_con       6
date          49
duetemp        3
rel_-hum       5
windspe        6
visibility     6
pree_kpa       5
dtype: int64
```

In [ ]:
```
.count single column,whole dataframe
```

In [10]:
```
df.count()
```

Out[10]:
```
weat_con      49
date          49
duetemp       49
rel_-hum      49
windspe       49
visibility    49
pree_kpa      49
dtype: int64
```

In [ ]:
```
.value_counts() single column
```

In [11]:
```
df['weat_con'].value_counts()
```

Out[11]:
```
clear       15
freezing    11
snow        10
drizzle      8
frog         3
rain         2
Name: weat_con, dtype: int64
```

In [ ]:
```
.info()
```

In [12]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 49 entries, 0 to 48
Data columns (total 7 columns):
 #   Column      Non-Null Count  Dtype
---  ------      --------------  -----
 0   weat_con    49 non-null     object
 1   date        49 non-null     object
 2   duetemp     49 non-null     float64
 3   rel_-hum    49 non-null     int64
 4   windspe     49 non-null     int64
 5   visibility  49 non-null     int64
 6   pree_kpa    49 non-null     int64
dtypes: float64(1), int64(4), object(2)
memory usage: 2.8+ KB
```

In [ ]:
```
Q1).Find all the unique "windspeed" values in data
```

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

Out[14]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [15]:
```
df.nunique()
```

Out[15]:
```
weat_con       6
date          49
duetemp        3
rel_-hum       5
windspe        6
visibility     6
pree_kpa       5
dtype: int64
```

In [16]:
```
 df['windspe'].nunique()
```

Out[16]:
```
6
```

In [17]:
```
df['windspe'].unique()
```

Out[17]:
```
array([20, 21, 30, 40, 60, 42], dtype=int64)
```

In [ ]:
```
Q2).Find the number of times when the "weather is exactly clear"
```

In [19]:
```
df.head(2)
```

Out[19]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [21]:
```
 #value_counts()
df.weat_con.value_counts()
```

Out[21]:
```
clear       15
freezing    11
snow        10
drizzle      8
frog         3
rain         2
Name: weat_con, dtype: int64
```

In [24]:
```
#filtering
#df.head(2)
df[df.weat_con == 'clear']
```

Out[24]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
10	clear	1/11/2023	-51.0	45	21	19	30
11	clear	1/12/2023	-51.0	45	21	19	30
12	clear	1/13/2023	-51.0	45	30	19	25
13	clear	1/14/2023	-51.0	45	30	19	25
14	clear	1/15/2023	-51.0	45	40	25	25
15	clear	1/16/2023	-51.0	45	40	25	6
16	clear	1/17/2023	-51.0	45	40	25	6
17	clear	1/18/2023	-51.0	46	40	25	6
18	clear	1/19/2023	-3.0	45	40	25	6
19	clear	1/20/2023	-3.0	47	40	25	6
20	clear	1/21/2023	-3.0	47	40	25	30
21	clear	1/22/2023	-3.0	47	40	25	30
22	clear	1/23/2023	-3.0	47	40	25	30
23	clear	1/24/2023	-3.0	47	60	25	30
24	clear	1/25/2023	-3.0	47	60	25	30

In [26]:
```
#groupby()
#df.head(2)
df.groupby('weat_con').get_group('clear')
```

Out[26]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
10	clear	1/11/2023	-51.0	45	21	19	30
11	clear	1/12/2023	-51.0	45	21	19	30
12	clear	1/13/2023	-51.0	45	30	19	25
13	clear	1/14/2023	-51.0	45	30	19	25
14	clear	1/15/2023	-51.0	45	40	25	25
15	clear	1/16/2023	-51.0	45	40	25	6
16	clear	1/17/2023	-51.0	45	40	25	6
17	clear	1/18/2023	-51.0	46	40	25	6
18	clear	1/19/2023	-3.0	45	40	25	6
19	clear	1/20/2023	-3.0	47	40	25	6
20	clear	1/21/2023	-3.0	47	40	25	30
21	clear	1/22/2023	-3.0	47	40	25	30
22	clear	1/23/2023	-3.0	47	40	25	30
23	clear	1/24/2023	-3.0	47	60	25	30
24	clear	1/25/2023	-3.0	47	60	25	30

In [ ]:
```
Q3.Find the number of times when the "wind speed was exactly 42 km/h"
```

In [27]:
```
df.head(2)
```

Out[27]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [30]:
```
df[df['windspe'] == 42] #answer
```

Out[30]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
34	freezing	2/4/2023	-3.0	67	42	30	40
35	freezing	2/5/2023	-3.0	67	42	30	40
36	freezing	2/6/2023	-3.0	67	42	30	40
37	freezing	2/7/2023	-3.0	67	42	30	40
38	freezing	2/8/2023	-3.0	67	42	30	40
39	freezing	2/9/2023	-3.0	67	42	25	40
40	freezing	2/10/2023	-3.0	67	42	30	40
41	freezing	2/11/2023	-3.0	67	42	40	40
42	freezing	2/12/2023	-3.0	67	42	40	40
43	freezing	2/13/2023	-3.0	4	42	40	40
44	rain	2/14/2023	-3.0	4	42	40	40
45	rain	2/15/2023	-1.8	4	42	40	40
46	frog	2/16/2023	-1.8	4	42	40	40
47	frog	2/17/2023	-1.8	4	42	40	40
48	frog	2/18/2023	-1.8	4	42	40	40

In [ ]:
```
Q4)Find out all the null values in the data
```

In [31]:
```
df.isnull().sum()
```

Out[31]:
```
weat_con      0
date          0
duetemp       0
rel_-hum      0
windspe       0
visibility    0
pree_kpa      0
dtype: int64
```

In [32]:
```
df.notnull().sum()
```

Out[32]:
```
weat_con      49
date          49
duetemp       49
rel_-hum      49
windspe       49
visibility    49
pree_kpa      49
dtype: int64
```

Q5)Rename the column name'weather' to weather condition

In [36]:
```
#df.head(2)
df.rename(columns = {"weat_con" : "weather condition"}, inplace = True)
```

In [37]:
```
df.head(2)
```

Out[37]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [ ]:
```
Q6) What is the mean "visibility"
```

In [38]:
```
df.head(2)
```

Out[38]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [39]:
```
df.visibility.mean()
```

Out[39]:
```
25.408163265306122
```

In [ ]:
```
Q7) What is the standard deviation of "pressure"
```

In [40]:
```
df.pree_kpa.std()
```

Out[40]:
```
10.733514491224822
```

In [ ]:
```
Q8) What is the variance of relative humidity
```

In [42]:
```
df['rel_-hum'].var()
```

Out[42]:
```
340.4583333333334
```

In [ ]:
```
Q9) Find all instances when 'snow' was recorded
```

In [44]:
```
# value_counts()
#df.head(2)
df['weather condition'].value_counts()
```

Out[44]:
```
clear       15
freezing    11
snow        10
drizzle      8
frog         3
rain         2
Name: weather condition, dtype: int64
```

In [45]:
```
#fltering
df[df['weather condition'] == "snow"]
```

Out[45]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20
2	snow	1/3/2023	-51.0	45	21	11	20
3	snow	1/4/2023	-51.0	45	21	11	20
4	snow	1/5/2023	-51.0	45	21	11	20
5	snow	1/6/2023	-51.0	45	21	11	20
6	snow	1/7/2023	-51.0	45	21	11	20
7	snow	1/8/2023	-51.0	45	21	11	20
8	snow	1/9/2023	-51.0	45	21	11	30
9	snow	1/10/2023	-51.0	45	21	11	30

In [51]:
```
#str.contains
df[df['weather condition'].str.contains('snow')]
```

Out[51]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20
2	snow	1/3/2023	-51.0	45	21	11	20
3	snow	1/4/2023	-51.0	45	21	11	20
4	snow	1/5/2023	-51.0	45	21	11	20
5	snow	1/6/2023	-51.0	45	21	11	20
6	snow	1/7/2023	-51.0	45	21	11	20
7	snow	1/8/2023	-51.0	45	21	11	20
8	snow	1/9/2023	-51.0	45	21	11	30
9	snow	1/10/2023	-51.0	45	21	11	30

In [3]:
```
#Q10)Find all instances "when spedd is above 24" and "visibility" is 25
import pandas as pd
df = pd.read_csv(r"C:\Users\joykaaria\Desktop\data weather.csv")
df
```

Out[3]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20
2	snow	1/3/2023	-51.0	45	21	11	20
3	snow	1/4/2023	-51.0	45	21	11	20
4	snow	1/5/2023	-51.0	45	21	11	20
5	snow	1/6/2023	-51.0	45	21	11	20
6	snow	1/7/2023	-51.0	45	21	11	20
7	snow	1/8/2023	-51.0	45	21	11	20
8	snow	1/9/2023	-51.0	45	21	11	30
9	snow	1/10/2023	-51.0	45	21	11	30
10	clear	1/11/2023	-51.0	45	21	19	30
11	clear	1/12/2023	-51.0	45	21	19	30
12	clear	1/13/2023	-51.0	45	30	19	25
13	clear	1/14/2023	-51.0	45	30	19	25
14	clear	1/15/2023	-51.0	45	40	25	25
15	clear	1/16/2023	-51.0	45	40	25	6
16	clear	1/17/2023	-51.0	45	40	25	6
17	clear	1/18/2023	-51.0	46	40	25	6
18	clear	1/19/2023	-3.0	45	40	25	6
19	clear	1/20/2023	-3.0	47	40	25	6
20	clear	1/21/2023	-3.0	47	40	25	30
21	clear	1/22/2023	-3.0	47	40	25	30
22	clear	1/23/2023	-3.0	47	40	25	30
23	clear	1/24/2023	-3.0	47	60	25	30
24	clear	1/25/2023	-3.0	47	60	25	30
25	drizzle	1/26/2023	-3.0	47	60	25	30
26	drizzle	1/27/2023	-3.0	47	60	25	30
27	drizzle	1/28/2023	-3.0	47	60	30	30
28	drizzle	1/29/2023	-3.0	47	60	30	30
29	drizzle	1/30/2023	-3.0	47	60	30	30
30	drizzle	1/31/2023	-3.0	67	60	30	30
31	drizzle	2/1/2023	-3.0	67	60	30	40
32	drizzle	2/2/2023	-3.0	67	60	30	40

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
33	freezing	2/3/2023	-3.0	67	60	30	40
34	freezing	2/4/2023	-3.0	67	42	30	40
35	freezing	2/5/2023	-3.0	67	42	30	40
36	freezing	2/6/2023	-3.0	67	42	30	40
37	freezing	2/7/2023	-3.0	67	42	30	40
38	freezing	2/8/2023	-3.0	67	42	30	40
39	freezing	2/9/2023	-3.0	67	42	25	40
40	freezing	2/10/2023	-3.0	67	42	30	40
41	freezing	2/11/2023	-3.0	67	42	40	40
42	freezing	2/12/2023	-3.0	67	42	40	40
43	freezing	2/13/2023	-3.0	4	42	40	40
44	rain	2/14/2023	-3.0	4	42	40	40
45	rain	2/15/2023	-1.8	4	42	40	40
46	frog	2/16/2023	-1.8	4	42	40	40
47	frog	2/17/2023	-1.8	4	42	40	40
48	frog	2/18/2023	-1.8	4	42	40	40

In [4]:
```
df.head(2)
```

Out[4]:

	weat_con	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [9]:
```
df.rename(columns = {'weat_con':'weather condition'}, inplace = True)
```

In [10]:
```
df.head(2)
```

Out[10]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [ ]:
```
Q10) Find all instances when "wind speed is above 24 and visibility is 25"
```

In [11]:
```
df.head(2)
```

Out[11]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [12]:
```
df[(df['windspe'] > 24) & (df['visibility'] == 25)]
```

Out[12]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
14	clear	1/15/2023	-51.0	45	40	25	25
15	clear	1/16/2023	-51.0	45	40	25	6
16	clear	1/17/2023	-51.0	45	40	25	6
17	clear	1/18/2023	-51.0	46	40	25	6
18	clear	1/19/2023	-3.0	45	40	25	6
19	clear	1/20/2023	-3.0	47	40	25	6
20	clear	1/21/2023	-3.0	47	40	25	30
21	clear	1/22/2023	-3.0	47	40	25	30
22	clear	1/23/2023	-3.0	47	40	25	30
23	clear	1/24/2023	-3.0	47	60	25	30
24	clear	1/25/2023	-3.0	47	60	25	30
25	drizzle	1/26/2023	-3.0	47	60	25	30
26	drizzle	1/27/2023	-3.0	47	60	25	30
39	freezing	2/9/2023	-3.0	67	42	25	40

In [ ]:
```
Q11) What is the mean value of each column against each'weather condition'
```

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

Out[13]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [15]:
```
df.groupby('weather condition').mean()
```

Out[15]:

weather condition	duetemp	rel_-hum	windspe	visibility	pree_kpa
clear	-28.6	45.866667	38.800000	23.400000	21.0
drizzle	-3.0	54.500000	60.000000	28.750000	32.5
freezing	-3.0	61.272727	43.636364	32.272727	40.0
frog	-1.8	4.000000	42.000000	40.000000	40.0
rain	-2.4	4.000000	42.000000	40.000000	40.0
snow	-51.0	45.000000	20.900000	10.900000	22.0

In [ ]:
```
Q12) What is the minimum and maximum value of each column against'weather condition'
```

In [16]:
```
df.head(2)
```

Out[16]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [19]:
```
df.groupby('weather condition').max()
```

Out[19]:

weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
clear	1/25/2023	-3.0	47	60	25	30
drizzle	2/2/2023	-3.0	67	60	30	40
freezing	2/9/2023	-3.0	67	60	40	40
frog	2/18/2023	-1.8	4	42	40	40
rain	2/15/2023	-1.8	4	42	40	40
snow	1/9/2023	-51.0	45	21	11	30

In [ ]:
```
Q13) Show all the records where weather condition is fog
```

In [22]:
```
df[df['weather condition'] == 'frog']
```

Out[22]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
46	frog	2/16/2023	-1.8	4	42	40	40
47	frog	2/17/2023	-1.8	4	42	40	40
48	frog	2/18/2023	-1.8	4	42	40	40

In [ ]:
```
    Q14.FInd all instances when'weather is clear' or visibility is above 15'
```

In [49]:
```
df[(df['weather condition'] == 'clear')  & (df['visibility'] > 15)]
```

Out[49]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
10	clear	1/11/2023	-51.0	45	21	19	30
11	clear	1/12/2023	-51.0	45	21	19	30
12	clear	1/13/2023	-51.0	45	30	19	25
13	clear	1/14/2023	-51.0	45	30	19	25
14	clear	1/15/2023	-51.0	45	40	25	25
15	clear	1/16/2023	-51.0	45	40	25	6
16	clear	1/17/2023	-51.0	45	40	25	6
17	clear	1/18/2023	-51.0	46	40	25	6
18	clear	1/19/2023	-3.0	45	40	25	6
19	clear	1/20/2023	-3.0	47	40	25	6
20	clear	1/21/2023	-3.0	47	40	25	30
21	clear	1/22/2023	-3.0	47	40	25	30
22	clear	1/23/2023	-3.0	47	40	25	30
23	clear	1/24/2023	-3.0	47	60	25	30
24	clear	1/25/2023	-3.0	47	60	25	30

In [26]:
```
df.head(2)
```

Out[26]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

Q15)Find all instances when: A"weather is clear' and relative humidity is greater than 50 or B.'visibility is above 15

In [27]:
```
df.head(2)
```

Out[27]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
0	snow	1/1/2023	-51.0	45	20	10	20
1	snow	1/2/2023	-51.0	45	21	11	20

In [48]:
```
df[(df['weather condition'] == 'clear') & (df['rel_-hum'] > 40) | (df['visibility'] ==
```

Out[48]:

	weather condition	date	duetemp	rel_-hum	windspe	visibility	pree_kpa
10	clear	1/11/2023	-51.0	45	21	19	30
11	clear	1/12/2023	-51.0	45	21	19	30
12	clear	1/13/2023	-51.0	45	30	19	25
13	clear	1/14/2023	-51.0	45	30	19	25
14	clear	1/15/2023	-51.0	45	40	25	25
15	clear	1/16/2023	-51.0	45	40	25	6
16	clear	1/17/2023	-51.0	45	40	25	6
17	clear	1/18/2023	-51.0	46	40	25	6
18	clear	1/19/2023	-3.0	45	40	25	6
19	clear	1/20/2023	-3.0	47	40	25	6
20	clear	1/21/2023	-3.0	47	40	25	30
21	clear	1/22/2023	-3.0	47	40	25	30
22	clear	1/23/2023	-3.0	47	40	25	30
23	clear	1/24/2023	-3.0	47	60	25	30
24	clear	1/25/2023	-3.0	47	60	25	30