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# **NEW YORK INSTITUTE** OF **TECHNOLOGY**

# **Data Analysis Tool**

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# **Report Generated**

## Table Used

date	Temperature	DewPoint	Humidity	Wind	WinSpeed	WindGust	Pressure	Precip	Condition
01/01/2002	19	13	77	ENE	14	0	24.73	0.0	Cloudy
02/01/2002	10	-3	56	SE	5	0	24.94	0.0	Mostly Cloudy
04/01/2002	30	14	51	w	9	0	24.45	0.0	Partly Cloudy
05/01/2002	25	18	75	CALM	0	0	24.74	0.0	Mostly Cloudy
06/01/2002	23	9	55	SSE	13	0	24.74	0.0	Mostly Cloudy
07/01/2002	34	18	52	ssw	13	0	24.7	0.0	Partly Cloudy
08/01/2002	43	20	40	sw	15	0	24.57	0.0	Fair
10/01/2002	31	30	96	NE	12	0	24.67	0.0	Cloudy
11/01/2002	29	16	58	ssw	17	0	24.81	0.0	Fair
12/01/2002	31	17	57	CALM	0	0	24.87	0.0	Fair

# Summary of Table

index	Temperature	DewPoint	Humidity	WinSpeed	Pressure
count	20000.0	20000.0	20000.0	20000.0	20000.0
mean	50.224	28.778	52.169	10.167	24.507
std	20.026	15.958	24.975	5.327	0.186
min	-10.0	-22.0	6.0	0.0	23.85
25%	34.0	17.0	31.0	7.0	24.39
50%	50.0	27.0	49.0	9.0	24.5
75%	65.0	42.0	72.0	13.0	24.63
max	100.0	64.0	100.0	43.0	25.2

# Monthly grouped values (Mean)

Month	Temperature	DewPoint	Humidity	WinSpeed	Pressure	month
1	32.591	14.57	53.398	9.916	24.607	January
2	30.009	13.925	58.884	10.286	24.587	February
3	39.788	19.022	52.101	11.025	24.502	March
4	48.798	25.604	53.608	12.065	24.433	April

5	57.831	35.478	52.73	10.583	24.428	Мау
6	65.412	44.545	54.89	10.053	24.45	June
7	75.09	47.781	44.179	9.654	24.465	July
8	71.261	47.79	49.279	9.901	24.506	August
9	61.427	36.313	48.433	9.505	24.49	September
10	49.062	25.026	50.168	9.161	24.544	October
11	36.655	19.077	57.051	9.196	24.581	November
12	33.295	14.481	50.611	9.474	24.528	December

# Yearly grouped values (Mean)

Year	Temperature	DewPoint	Humidity	WinSpeed	Pressure
2002	49.737	26.568	48.796	10.451	24.51
2003	50.577	29.897	53.395	9.961	24.5
2004	50.436	30.528	55.639	10.046	24.514

# Top 3 features

Feature	Correlation		
Temperature	1.725		
Humidity	1.216		
Pressure	1.17		

# Highest and lowest values in 5 important columns

The maximum Temperature was 100 on 24-07-2003 at 14:53

The minimum Temperature was -10 on 05-01-2004 at 08:53

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The maximum Humidity was 100 on 02-01-2002 at 08:53

The minimum Humidity was 6 on 20-01-2003 at 13:53

The maximum Pressure was 25.2 on 21-03-2002 at 12:53
The minimum Pressure was 23.85 on 11-05-2004 at 16:53
The maximum DewPoint was 64 on 31-05-2003 at 17:53
The minimum DewPoint was -22 on 12-02-2004 at 00:53
The maximum WinSpeed was 43 on 21-05-2002 at 16:53
The minimum WinSpeed was 0 on 05-01-2002 at 00:53

## Time period analysis

## **Temperature**

Temperature is highest between 14:00 and 15:00 with an average value of 61.577
Temperature is lowest between 5:00 and 6:00 with an average value of 40.819
Temperature is highest on Friday with an average value of 50.938
Temperature is lowest on Thursday with an average value of 49.258
Temperature is highest on the 194 day of the year with an average value of 82.208
Temperature is lowest on the 56 day of the year with an average value of 12.438

### Humidity

Humidity is highest between 5:00 and 6:00 with an average value of 67.403
Humidity is lowest between 15:00 and 16:00 with an average value of 34.621
Humidity is highest on Thursday with an average value of 55.261
Humidity is lowest on Tuesday with an average value of 50.094
Humidity is highest on the 296 day of the year with an average value of 95.833
Humidity is lowest on the 291 day of the year with an average value of 18.875

#### Pressure

Pressure is highest between 8:00 and 9:00 with an average value of 24.547

Pressure is lowest between 15:00 and 16:00 with an average value of 24.464

Pressure is highest on Thursday with an average value of 24.527

Pressure is lowest on Wednesday with an average value of 24.498

Pressure is highest on the 330 day of the year with an average value of 24.935

Pressure is lowest on the 105 day of the year with an average value of 24.134

#### **DewPoint**

DewPoint is highest between 9:00 and 10:00 with an average value of 29.821

DewPoint is lowest between 14:00 and 15:00 with an average value of 27.582

DewPoint is highest on Saturday with an average value of 29.742

DewPoint is lowest on Sunday with an average value of 27.863

DewPoint is highest on the 204 day of the year with an average value of 54.229

DewPoint is lowest on the 344 day of the year with an average value of 0.708

### WinSpeed

WinSpeed is highest between 16:00 and 17:00 with an average value of 11.84

WinSpeed is lowest between 10:00 and 11:00 with an average value of 9.012

WinSpeed is highest on Tuesday with an average value of 10.556

WinSpeed is lowest on Sunday with an average value of 9.653

WinSpeed is highest on the 105 day of the year with an average value of 16.694

WinSpeed is lowest on the 306 day of the year with an average value of 4.292

## Forecasted Data

Temperature will drop 10% in 84 days (2004-11-07), with a value of 59.782 Humidity will jump 10% in 23 days (2004-09-07), with a value of 66.06

Humidity will jump 25% in 74 days (2004-10-28), with a value of 75.136

DewPoint will jump 10% in 22 days (2004-09-06), with a value of 55.04