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**NEW YORK INSTITUTE  
OF TECHNOLOGY**

# Data Analysis Tool

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*New York Institute of Technology*



# 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	145233.0	145233.0	145233.0	145233.0	145233.0
mean	51.192	29.326	51.03	10.021	24.531
std	20.231	15.448	24.273	5.788	0.196
min	-18.0	-23.0	0.0	0.0	0.0
25%	36.0	18.0	31.0	7.0	24.41
50%	51.0	28.0	49.0	9.0	24.54
75%	66.0	42.0	71.0	13.0	24.66
max	103.0	66.0	100.0	697.0	25.25

Monthly grouped values (Mean)

Month	Temperature	DewPoint	Humidity	WinSpeed	Pressure	month
1	32.025	15.039	55.081	9.687	24.577	January
2	31.512	14.85	57.204	10.078	24.547	February
3	41.307	19.666	50.63	10.885	24.504	March
4	48.123	25.823	51.589	11.638	24.46	April

5	57.085	36.287	54.491	10.341	24.478	May
6	68.813	42.873	46.801	10.242	24.483	June
7	74.79	48.384	45.862	9.716	24.546	July
8	72.202	46.567	46.55	9.508	24.548	August
9	64.255	37.98	46.11	9.356	24.555	September
10	50.543	27.94	50.976	9.584	24.557	October
11	39.991	19.904	52.024	9.646	24.57	November
12	30.818	14.163	55.433	9.562	24.552	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	49.462	30.167	55.821	9.966	24.521
2005	51.39	28.978	51.071	10.106	24.493
2006	51.525	27.162	47.099	10.551	24.502
2007	50.571	30.286	53.769	9.779	24.506
2008	50.952	27.891	49.666	10.096	24.48
2009	49.695	30.241	54.906	9.728	24.505
2010	51.237	29.269	51.17	9.574	24.478
2011	50.204	26.119	47.637	9.909	24.491
2012	54.211	25.858	41.664	10.293	24.479
2013	50.372	28.67	50.844	9.735	24.505
2014	50.383	30.728	53.776	10.211	24.588
2015	51.322	32.669	55.957	9.561	24.598
2016	51.653	29.763	49.295	10.044	24.589
2017	53.245	30.797	49.508	10.164	24.587
2018	52.568	30.249	49.908	10.243	24.596
2019	49.351	30.464	55.939	9.79	24.568
2020	54.903	31.475	48.324	10.296	24.588

Top 3 features

Feature	Correlation
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Temperature	1.516
Humidity	1.118
DewPoint	0.873

*Highest and lowest values in 5 important columns*

The maximum Temperature was 103 on 21-07-2005 at 14:53

The minimum Temperature was -18 on 15-12-2008 at 03:53

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

The minimum Humidity was 0 on 07-01-2009 at 12:53

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The maximum DewPoint was 66 on 06-08-2008 at 17:53

The minimum DewPoint was -23 on 02-02-2011 at 04:53

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The maximum Pressure was 25.25 on 01-01-2008 at 19:53

The minimum Pressure was 0.0 on 02-08-2016 at 17:53

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The maximum WinSpeed was 697 on 17-06-2011 at 22:53

The minimum WinSpeed was 0 on 05-01-2002 at 00:53

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*Time period analysis*

### Temperature

Temperature is highest between 14:00 and 15:00 with an average value of 62.675

Temperature is lowest between 5:00 and 6:00 with an average value of 41.945

Temperature is highest on Tuesday with an average value of 51.408

Temperature is lowest on Thursday with an average value of 50.718

Temperature is highest in year 18 with an average value of 54.903

Temperature is lowest in year 17 with an average value of 49.351

### Humidity

Humidity is highest between 5:00 and 6:00 with an average value of 65.208

Humidity is lowest between 14:00 and 15:00 with an average value of 33.215

Humidity is highest on Thursday with an average value of 52.375

Humidity is lowest on Tuesday with an average value of 49.806

Humidity is highest in year 13 with an average value of 55.957

Humidity is lowest in year 10 with an average value of 41.664

### DewPoint

DewPoint is highest between 22:00 and 23:00 with an average value of 30.467

DewPoint is lowest between 14:00 and 15:00 with an average value of 27.374

DewPoint is highest on Friday with an average value of 29.792

DewPoint is lowest on Tuesday with an average value of 28.845

DewPoint is highest in year 13 with an average value of 32.669

DewPoint is lowest in year 10 with an average value of 25.858

### Pressure

Pressure is highest between 8:00 and 9:00 with an average value of 24.564

Pressure is lowest between 15:00 and 16:00 with an average value of 24.492

Pressure is highest on Thursday with an average value of 24.542

Pressure is lowest on Sunday with an average value of 24.523

Pressure is highest on the 14 day of the year with an average value of 24.661

Pressure is lowest on the 105 day of the year with an average value of 24.377

### WinSpeed

WinSpeed is highest between 16:00 and 17:00 with an average value of 11.62

WinSpeed is lowest between 10:00 and 11:00 with an average value of 8.791

WinSpeed is highest on Tuesday with an average value of 10.196

**WinSpeed is lowest on Sunday with an average value of 9.839**

**WinSpeed is highest in year 4 with an average value of 10.551**

**WinSpeed is lowest in year 13 with an average value of 9.561**

### ***Forecasted Data***

**Temperature will drop 10% in 1 day (2020-10-21), with a value of 59.613**

**Temperature will drop 25% in 21 days (2020-11-10), with a value of 50.941**

**Temperature will drop 50% in 71 days (2020-12-30), with a value of 33.872**

**Humidity will jump 10% in 1 day (2020-10-21), with a value of 48.1**

**Humidity will jump 25% in 1 day (2020-10-21), with a value of 48.1**

**Humidity will jump 50% in 75 days (2021-01-03), with a value of 56.131**

**DewPoint will jump 10% in 246 days (2021-06-23), with a value of 40.115**

**DewPoint will jump 25% in 273 days (2021-07-20), with a value of 45.036**

**DewPoint will drop 10% in 9 days (2020-10-29), with a value of 31.882**

**DewPoint will drop 25% in 26 days (2020-11-15), with a value of 26.757**

**DewPoint will drop 50% in 62 days (2020-12-21), with a value of 17.997**

**WinSpeed will jump 10% in 153 days (2021-03-22), with a value of 10.002**