

Lab3: India Weather Analytics using Historical Data Part-1

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1).What is the lowest,higest and average temperature of your dataset (from year 1995 to feb 2020)?

```
SQL> select max(temp),min(temp),avg(temp) from weather;
```

```
MAX(TEMP) MIN(TEMP) AVG(TEMP)
```

```
-----  
103.7      -99 79.7413782
```

2).What is the average temperature in May 2019 in chennai?

```
SQL> select avg(temp) from weather where city='chennai' and month=5 and year=2019;
```

```
AVG(TEMP)
```

```
-----  
73.6064516
```

3).Which is the hottest day in 2019 in delhi?

```
SQL> select day,month,year from weather where temp=(select max(temp) from weather where  
city='delhi' and year=2019);
```

```
DAY    MONTH    YEAR
```

```
-----  
10      6      2019
```

4).Which is the coldest day in 2018 in chennai?

```
SQL> select day,month,year from weather where city='chennai' and year=2018 and temp=(select  
min(temp) from weather);
```

| DAY | MONTH | YEAR |
|-----|-------|------|
| 14 | 11 | 2018 |
| 17 | 11 | 2018 |

5).Which is the coldest year in december?. Print city and temperature.

SQL> select city,temp, year from weather where month=12 and temp=(select min(temp) from weather);

| CITY | TEMP | YEAR |
|---------|------|------|
| chennai | -99 | 1998 |
| chennai | -99 | 1998 |
| chennai | -99 | 1998 |
| chennai | -99 | 1998 |
| chennai | -99 | 2015 |
| chennai | -99 | 2015 |
| mumbai | -99 | 1998 |
| mumbai | -99 | 1998 |
| mumbai | -99 | 1998 |
| mumbai | -99 | 1998 |
| mumbai | -99 | 2007 |

| CITY | TEMP | YEAR |
|--------|------|------|
| mumbai | -99 | 2015 |
| mumbai | -99 | 2015 |
| delhi | -99 | 1998 |
| delhi | -99 | 1998 |

| | | |
|---------|-----|------|
| delhi | -99 | 1998 |
| delhi | -99 | 1998 |
| delhi | -99 | 2007 |
| delhi | -99 | 2015 |
| delhi | -99 | 2015 |
| kolkata | -99 | 1998 |
| kolkata | -99 | 1998 |

| CITY | TEMP | YEAR |
|---------|-------|-------|
| ----- | ----- | ----- |
| kolkata | -99 | 1998 |
| kolkata | -99 | 1998 |
| kolkata | -99 | 2015 |
| kolkata | -99 | 2015 |

6).Which is the hottest city in india in 2017?

SQL> select city,temp from weather where temp=(select max(temp) from weather where year=2017);

| CITY | TEMP |
|-------|-------|
| ----- | ----- |
| delhi | 103.6 |

7).Is winter in delhi in january 2017 colder than Mumbai?. Print average temperature of delhi and Mumbai too.

SQL> select avg(temp) from weather where year=2017 and city='delhi'and month=1;

| AVG(TEMP) |
|-----------|
| ----- |

59.4258065

```
SQL> select avg(temp) from weather where year=2017 and city='mumbai'and month =1;
```

AVG(TEMP)

78.7870968

8).Display the day,month,year and city of the coldest day.

```
SQL> select day,month,year from weather where temp=(select min(temp) from weather);
```

| DAY | MONTH | YEAR |
|-----|-------|------|
|-----|-------|------|

| | | |
|----|---|------|
| 29 | 3 | 1995 |
|----|---|------|

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|----|---|------|
| 22 | 6 | 1995 |
|----|---|------|

| | | |
|----|----|------|
| 26 | 10 | 1996 |
|----|----|------|

| | | |
|----|---|------|
| 18 | 6 | 2002 |
|----|---|------|

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|----|---|------|
| 19 | 6 | 2002 |
|----|---|------|

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| 20 | 6 | 2002 |
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|----|---|------|
| 21 | 6 | 2002 |
|----|---|------|

| | | |
|----|----|------|
| 26 | 10 | 2002 |
|----|----|------|

| | | |
|----|---|------|
| 13 | 1 | 2003 |
|----|---|------|

| | | |
|----|---|------|
| 16 | 8 | 1998 |
|----|---|------|

| | | |
|----|----|------|
| 24 | 12 | 1998 |
|----|----|------|

| DAY | MONTH | YEAR |
|-----|-------|------|
|-----|-------|------|

| | | |
|----|----|------|
| 25 | 12 | 1998 |
|----|----|------|

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|----|----|------|
| 30 | 12 | 1998 |
|----|----|------|

| | | |
|----|----|------|
| 31 | 12 | 1998 |
|----|----|------|

| | | |
|----|----|------|
| 10 | 1 | 1999 |
| 28 | 8 | 2007 |
| 24 | 9 | 2008 |
| 9 | 4 | 2009 |
| 30 | 12 | 2015 |
| 31 | 12 | 2015 |
| 10 | 3 | 2016 |
| 11 | 11 | 2016 |

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|-----|-------|------|
| DAY | MONTH | YEAR |
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|----|----|------|
| 6 | 2 | 2014 |
| 14 | 11 | 2018 |
| 17 | 11 | 2018 |
| 24 | 4 | 2019 |
| 16 | 5 | 2019 |
| 17 | 5 | 2019 |
| 18 | 5 | 2019 |
| 29 | 3 | 1995 |
| 24 | 12 | 1998 |
| 25 | 12 | 1998 |
| 30 | 12 | 1998 |

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|-----|-------|------|
| DAY | MONTH | YEAR |
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|----|----|------|
| 31 | 12 | 1998 |
| 10 | 1 | 1999 |
| 18 | 6 | 2002 |
| 19 | 6 | 2002 |
| 20 | 6 | 2002 |
| 21 | 6 | 2002 |

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|----|----|------|
| 9 | 4 | 2009 |
| 28 | 8 | 2007 |
| 7 | 12 | 2007 |
| 22 | 1 | 2008 |
| 18 | 8 | 2008 |

| DAY | MONTH | YEAR |
|-----|-------|------|
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| 24 | 9 | 2008 |
| 30 | 12 | 2015 |
| 31 | 12 | 2015 |
| 10 | 3 | 2016 |
| 11 | 11 | 2016 |
| 6 | 2 | 2014 |
| 14 | 11 | 2018 |
| 15 | 11 | 2018 |
| 17 | 11 | 2018 |
| 23 | 1 | 2019 |
| 24 | 4 | 2019 |

| DAY | MONTH | YEAR |
|-----|-------|------|
|-----|-------|------|

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|----|----|------|
| 16 | 5 | 2019 |
| 17 | 5 | 2019 |
| 18 | 5 | 2019 |
| 19 | 5 | 2019 |
| 29 | 3 | 1995 |
| 28 | 4 | 2001 |
| 16 | 8 | 1998 |
| 1 | 10 | 1998 |
| 24 | 12 | 1998 |

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| 25 | 12 | 1998 |
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| 30 | 12 | 1998 |
|----|----|------|

| DAY | MONTH | YEAR |
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| 31 | 12 | 1998 |
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| 10 | 1 | 1999 |
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| 29 | 4 | 1999 |
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| 30 | 4 | 1999 |
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| 18 | 6 | 2002 |
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| 19 | 6 | 2002 |
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| 20 | 6 | 2002 |
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| 21 | 6 | 2002 |
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|----|----|------|
| 26 | 10 | 2002 |
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| 17 | 4 | 2010 |
|----|---|------|

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| 18 | 4 | 2010 |
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| DAY | MONTH | YEAR |
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| 19 | 4 | 2010 |
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| 21 | 4 | 2010 |
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| 9 | 6 | 2011 |
|---|---|------|

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| 10 | 6 | 2011 |
|----|---|------|

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|----|---|------|
| 11 | 6 | 2011 |
|----|---|------|

| | | |
|----|---|------|
| 12 | 6 | 2011 |
|----|---|------|

| | | |
|----|---|------|
| 13 | 6 | 2011 |
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| 6 | 3 | 2007 |
|---|---|------|

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| 7 | 3 | 2007 |
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| 20 | 5 | 2007 |
|----|---|------|

| | | |
|----|---|------|
| 28 | 8 | 2007 |
|----|---|------|

| DAY | MONTH | YEAR |
|-----|-------|------|
|-----|-------|------|

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|----|----|------|
| 22 | 10 | 2007 |
| 7 | 12 | 2007 |
| 24 | 9 | 2008 |
| 2 | 3 | 2009 |
| 9 | 4 | 2009 |
| 6 | 2 | 2014 |
| 30 | 12 | 2015 |
| 31 | 12 | 2015 |
| 10 | 3 | 2016 |
| 15 | 5 | 2013 |
| 29 | 3 | 1995 |

| DAY | MONTH | YEAR |
|-----|-------|------|
|-----|-------|------|

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|----|----|------|
| 22 | 6 | 1995 |
| 23 | 6 | 1995 |
| 8 | 3 | 1996 |
| 14 | 3 | 1996 |
| 15 | 3 | 1996 |
| 20 | 3 | 1996 |
| 22 | 3 | 1996 |
| 16 | 4 | 2016 |
| 5 | 5 | 2016 |
| 21 | 9 | 2016 |
| 11 | 11 | 2016 |

| DAY | MONTH | YEAR |
|-----|-------|------|
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| 19 | 4 | 2017 |
|----|---|------|

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|----|----|------|
| 20 | 4 | 2017 |
| 4 | 1 | 2018 |
| 17 | 9 | 2018 |
| 24 | 9 | 2018 |
| 14 | 11 | 2018 |
| 15 | 11 | 2018 |
| 17 | 11 | 2018 |
| 23 | 1 | 2019 |
| 24 | 4 | 2019 |
| 25 | 4 | 2019 |

| DAY | MONTH | YEAR |
|-----|-------|------|
|-----|-------|------|

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|----|---|------|
| 27 | 4 | 2019 |
| 30 | 4 | 2019 |
| 16 | 5 | 2019 |
| 17 | 5 | 2019 |
| 18 | 5 | 2019 |
| 19 | 5 | 2019 |
| 6 | 3 | 2007 |
| 7 | 3 | 2007 |
| 20 | 5 | 2007 |
| 28 | 8 | 2007 |
| 24 | 9 | 2008 |

| DAY | MONTH | YEAR |
|-----|-------|------|
|-----|-------|------|

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|----|----|------|
| 9 | 4 | 2009 |
| 14 | 11 | 2018 |
| 15 | 11 | 2018 |
| 17 | 11 | 2018 |

| | | |
|----|----|------|
| 23 | 1 | 2019 |
| 24 | 4 | 2019 |
| 16 | 5 | 2019 |
| 17 | 5 | 2019 |
| 18 | 5 | 2019 |
| 19 | 5 | 2019 |
| 24 | 12 | 1998 |

| DAY | MONTH | YEAR |
|-----|-------|------|
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| | | |
|----|----|------|
| 25 | 12 | 1998 |
| 30 | 12 | 1998 |
| 31 | 12 | 1998 |
| 10 | 1 | 1999 |
| 22 | 3 | 2000 |
| 23 | 3 | 2000 |
| 24 | 3 | 2000 |
| 18 | 6 | 2002 |
| 19 | 6 | 2002 |
| 20 | 6 | 2002 |
| 21 | 6 | 2002 |

| DAY | MONTH | YEAR |
|-----|-------|------|
|-----|-------|------|

| | | |
|----|----|------|
| 26 | 10 | 2002 |
| 6 | 2 | 2014 |
| 30 | 12 | 2015 |
| 31 | 12 | 2015 |
| 10 | 3 | 2016 |
| 11 | 11 | 2016 |