

```

1
2
3  /* Check for total rows */
4  SELECT COUNT(*) as total_days FROM daily_weather;
5
6  /*Showing unique rows */
7  SELECT COUNT(DISTINCT date) as unique_days FROM daily_weather;
8
9  /* because unique rows and total rows are not the same, there are duplicate dates */
10 /*Checking the duplicates rows */
11
12 SELECT * FROM daily_weather
13 WHERE date IN (
14     SELECT date FROM daily_weather
15     GROUP BY date
16     HAVING COUNT(*) > 1
17 )
18 ORDER BY date;
19
20 /* Question 2: What was the highest temperature recorded, and on what date did it occur? */
21
22 SELECT dw.date, dw.tmax_f
23 FROM daily_weather dw
24 ORDER BY tmax_f DESC
25 LIMIT 10;
26
27
28 /* Alternative query */
29
30 SELECT date, tmax_f FROM daily_weather
31 WHERE tmax_f = (SELECT MAX(tmax_f) FROM daily_weather);
32
33 /* Question 3: What was the lowest temperature recorded, and on what date did it occur? */
34
35 SELECT dw.date, dw.tmin_f
36 FROM daily_weather dw
37 ORDER BY tmin_f ASC
38 LIMIT 8;
39
40 /*Alternative Query */
41 SELECT date, tmin_f
42 FROM daily_weather WHERE tmin_f = (SELECT MIN(tmin_f) FROM daily_weather);
43
44
45 /* Question 4: How many days each year had "extreme heat" (temperature > 90°F)? */
46 SELECT strftime('%Y', date) AS year, COUNT(*) AS N_Hot_days
47 FROM daily_weather
48 WHERE tmax_f > 90
49 GROUP BY year
50 ORDER BY CAST(year AS INT)
51
52
53 /* Question 5: How many days each year had "extreme cold" (temperature < 32°F)? */
54
55 SELECT year, COUNT(*) AS COLD_DAYS
56 FROM daily_weather
57 WHERE tmin_f < 32
58 GROUP BY year;
59
60 /* Question 6: What is the average wind speed for each year? */
61
62 SELECT year, round(avg(wspd_mph), 0) AS AV_Wind_SPD

```

```

63 FROM daily_weather
64 GROUP BY year;
65
66 /* Question 7: On how many days did wind speeds exceed 20 mph? */
67
68 SELECT COUNT(*) AS N_Ex20
69 FROM daily_weather
70 WHERE wspd_mph > 20
71
72 /* What's if we want to find them per year?! */
73 SELECT year, COUNT(*) AS N_W_Ex20
74 FROM daily_weather
75 WHERE wspd_mph > 20
76 GROUP BY year
77 ORDER BY CAST( year AS INT);
78
79
80 /* 8- *How many "extreme weather days" (temp > 90°F, temp < 32°F, OR wind > 20 mph) occurred each year */
81
82 SELECT year, COUNT(*) AS Ex_Weather_days
83 FROM daily_weather
84 WHERE tmax_f > 90 OR tmin_f < 32 OR wspd_mph > 20
85 GROUP BY year
86 ORDER BY CAST(year AS INT);
87
88
89 /* What if we want to get just the total across the years?! */
90 SELECT COUNT(*) AS EX_weather_days
91 FROM daily_weather
92 WHERE (tmax_f > 90 OR tmin_f < 32 OR wspd_mph > 20);
93
94 /* 9- Which month had the highest number of extreme weather days across the dataset? */
95 SELECT strftime('%m', date) AS month, COUNT(*) AS EX_Weather
96 FROM daily_weather
97 WHERE (tmax_f > 90 OR tmin_f < 32 OR wspd_mph > 20)
98 GROUP BY month
99 ORDER BY Ex_Weather DESC
100 LIMIT 5;
101
102
103 /* 10- What percentage of all recorded days were extreme weather days? */
104
105 SELECT COUNT(*) FROM daily_weather AS Total_Records;
106
107 SELECT COUNT(*) FROM daily_weather AS Ext_Weather
108 WHERE (tmax_f > 90 OR tmin_f < 32 OR wspd_mph > 20);
109
110 SELECT ROUND(100.0 * 265.0/370.0, 1) || '%' AS pct_extreme_days;
111
112

```