SQL TIPS AND TRICKS

PART 27

Adv. SQL ROLLING CALCULATIONS

MAYURI DANDEKAR

Result dita HH (Titler Nows.								
	Order_ID	Order_Date	Sales					
•	152156	2016-01-05	261					
	138688	2016-02-12	14					
	108966	2016-03-11	731					
	115812	2016-04-09	907					
	115812	2016-05-09	7					
	115812	2016-06-09	114					
	114212	2016-07-15	22					
	161389	2016-08-05	911					
	118983	2016-09-22	15					
	118983	2016-10-22	1706					
	-							

```
27 • ⊝ WITH year_month_sales AS (
28
            SELECT EXTRACT(YEAR FROM Order Date) as order year,
29
                    EXTRACT(MONTH FROM Order Date) as order month,
30
                    SUM(Sales) as totalsales
31
            FROM sales
32
            GROUP BY EXTRACT(YEAR FROM Order_Date), EXTRACT(MONTH FROM Order_Date)
33
34
        SELECT order year, order month, totalsales,
35
               SUM(totalsales) OVER(ORDER BY order year ASC,
36
               order_month asc ROWS BETWEEN 2 PRECEDING AND 0 PRECEDING) as rolling_3mnth
37
        FROM year month sales;
                                    Export: Wrap Cell Content: 1A
Result Grid | Filter Rows:
  order_year
            order_month
                       totalsales
                                    rolling_3mnth
  2016
                       261
                                   261
                                                            2 Preceding(previous)
                       14
                                   275
  2016
                       731
                                   1006
  2016
                                                            current
  2016
                       907
                                   1652
  2016
                       7
                                   1645
  2016
            6
                       114
                                   1028
  2016
                       22
                                   143
            8
                       911
                                   1047
  2016
  2016
            9
                       15
                                   948
  2016
            10
                       1706
                                   2632
```

```
39 • ⊖ WITH year_month_sales AS (
40
            SELECT EXTRACT(YEAR FROM Order Date) as order year,
41
                    EXTRACT(MONTH FROM Order Date) as order month,
                    SUM(Sales) as totalsales
42
43
            FROM sales
            GROUP BY EXTRACT(YEAR FROM Order Date), EXTRACT(MONTH FROM Order Date)
44
45
46
        SELECT order year, order month, totalsales,
47
               SUM(totalsales) OVER(ORDER BY order year ASC,
48
               order month asc ROWS BETWEEN 2 PRECEDING AND 1 FOLLOWING) as rolling sum
        FROM year month sales;
49
                                    Export:
Result Grid | Filter Rows:
                                             Wrap Cell Content: TA
            order month
                       totalsales
  order year
                                   rolling_sum
  2016
                                   275
                       261
                                                             2 preceding
                       14
                                   1006
  2016
            2
  2016
                       731
                                   1913
                                                             current
                       907
                                   1659
  2016
                                                             1 following
  2016
                                   1759
                       114
                                   1050
  2016
                       22
                                   1054
  2016
                       911
                                   1062
  2016
            8
                       15
  2016
                                   2654
            10
                       1706
  2016
                                   2632
```

```
39 • ⊝ WITH year month sales AS (
          SELECT EXTRACT(YEAR FROM Order Date) as order year,
40
41
                  EXTRACT(MONTH FROM Order_Date) as order_month,
42
                 SUM(Sales) as totalsales
          FROM sales
43
          GROUP BY EXTRACT(YEAR FROM Order Date), EXTRACT(MONTH FROM Order Date)
44
45
46
      SELECT order year, order month, totalsales,
47
             SUM(totalsales) OVER(ORDER BY order_year ASC, order_month asc ROWS BETWEEN 2 PRECEDING AND 1 FOLLOWING) as rolling_sum,
             AVG(totalsales) OVER(ORDER BY order_year ASC, order_month asc ROWS BETWEEN 2 PRECEDING AND 1 FOLLOWING) as rolling_avg,
48
             MIN(totalsales) OVER(ORDER BY order year ASC, order month asc ROWS BETWEEN 2 PRECEDING AND 1 FOLLOWING) as rolling min,
49
50
             MAX(totalsales) OVER(ORDER BY order_year ASC, order_month asc ROWS BETWEEN 2 PRECEDING AND 1 FOLLOWING) as rolling_max
51
      FROM year_month_sales;
52
```

	order_year	order_month	totalsales	rolling_sum	rolling_avg	rolling_min	rolling_max
•	2016	1	261	275	137.5000	14	261
	2016	2	14	1006	335.3333	14	731
	2016	3	731	1913	478.2500	14	907
	2016	4	907	1659	414.7500	7	907
	2016	5	7	1759	439.7500	7	907
	2016	6	114	1050	262.5000	7	907
	2016	7	22	1054	263.5000	7	911
	2016	8	911	1062	265.5000	15	911
	2016	9	15	2654	663.5000	15	1706
	2016	10	1706	2632	877.3333	15	1706

THANK YOU

MAYURI DANDEKAR