

```

1 • use sales;
2   select * from sales;
3
4
5
6
7
8
9
10

```

sale_id	product_id	sale_date	revenue	discount
1	711	2024-03-02	177.3	12.51
2	502	2024-07-03	60.1	7.54
3	306	2023-11-16	50.96	22.89
4	838	2023-11-14	161.27	3.03
5	527	2024-05-18	190.69	10.9
6	205	2023-10-25	106.39	0.73
7	835	2024-07-13	56.68	22.88
8	80	2023-08-28	64.82	5.07
9	111	2023-11-08	62.67	17.05
10	818	2023-08-26	49.74	11.66
11	820	2023-10-03	169.34	29.14
12	145	2024-02-20	106.51	21.66
13	231	2024-01-09	108.45	4.71
14	652	2023-08-25	123.16	2.7

```

3
4   /*extract month and years*/
5
6 • SELECT MONTH(sale_date) AS month,year(sale_date) AS year
7   FROM sales;
8
9
10  /*example uses as month and sum for revenue*/

```

month	year
3	2024
7	2024
11	2023
11	2023
5	2024
10	2023
7	2024
8	2023
11	2023
8	2023
10	2023
2	2024
1	2024
8	2023

```

24  /*Total product id by revenue*/
25
26 • SELECT
27     product_id,
28     SUM(revenue) AS total_revenue
29   FROM sales
30  GROUP BY product_id
31  ORDER BY total_revenue DESC
32  LIMIT 5;
33

```

product_id	total_revenue
471	1511.0000000000002
306	1495.78
136	1463.2499999999998
409	1462.51
155	1415.58

```

34  /* sales by product per month */
35  • SELECT
36      EXTRACT(YEAR FROM sale_date) AS year,
37      EXTRACT(MONTH FROM sale_date) AS month,
38      product_id,
39      SUM(revenue) AS product_monthly_revenue
40  FROM sales
41  GROUP BY year, month, product_id
42  ORDER BY year, month, product_monthly_revenue DESC;

```

year	month	product_id	product_monthly_revenue
2023	8	521	605.27
2023	8	923	464.97
2023	8	363	431.01
2023	8	971	368.81
2023	8	241	363.71000000000004
2023	8	333	362.38
2023	8	638	357.45
2023	8	704	350.07
2023	8	927	344.01
2023	8	821	333.1
2023	8	584	321.49
2023	8	164	311.82
2023	8	676	308.65999999999997
2023	8	817	308.6

```

53  /*limit results*/
54  • SELECT * FROM sales
55  LIMIT 3;

```

sale_id	product_id	sale_date	revenue	discount
1	711	2024-03-02	177.3	12.51
2	502	2024-07-03	60.1	7.54
3	306	2023-11-16	50.96	22.89

```

58  /*Highest Revenue Day */
59
60  • SELECT
61      sale_date,
62      SUM(revenue) AS daily_revenue
63  FROM sales
64  GROUP BY sale_date
65  ORDER BY daily_revenue DESC
66  LIMIT 1;

```

sale_date	daily_revenue
2023-08-08	3052.3599999999999

```

68      /* Revenue Trend by Week */
69
70      SELECT
71          EXTRACT(YEAR FROM sale_date) AS year,
72          WEEK(sale_date) AS week,
73          SUM(revenue) AS weekly_revenue
74      FROM sales
75      GROUP BY year, week
76      ORDER BY year, week;
77

```

year	week	weekly_revenue
2023	31	6075.750000000001
2023	32	11535.420000000002
2023	33	9757.199999999997
2023	34	9946.919999999996
2023	35	10896.25
2023	36	10959.69
2023	37	12419.090000000001
2023	38	9648.240000000002
2023	39	11246.090000000004
2023	40	10957.499999999998
2023	41	7712.040000000001
2023	42	9942.099999999997
2023	43	10860.94
2023	44	9316.639999999998

```

79      /*Most Frequently Sold Products */
80
81      SELECT
82          product_id,
83          COUNT(*) AS total_sales
84      FROM sales
85      GROUP BY product_id
86      ORDER BY total_sales DESC
87      LIMIT 5;
88

```

product_id	total_sales
134	13
863	12
306	12
471	12
407	12