**W3resource**

**Functions and Group by**

**1.** From the following table, write a SQL query to calculate total purchase amount of all orders. Return total purchase amount.

**Solution:** select sum (purch\_amt) from orders;

**2.** From the following table, write a SQL query to calculate the average purchase amount of all orders. Return average purchase amount.

**Solution:** select avg(purch\_amt) from orders;

**3.** From the following table, write a SQL query that counts the number of unique salespeople. Return number of salespeople.

**Solution:** select count(distinct salesman\_id) from orders;

**4.** From the following table, write a SQL query to count the number of customers. Return number of customers.

**Solution:** select count(distinct customer\_id) from orders;

**5.** From the following table, write a SQL query to determine the number of customers who received at least one grade for their activity.

**Solution:** select count(all grade) from customer;

**6.** From the following table, write a SQL query to find the maximum purchase amount.

**Solution:** select max (purch\_amt) from orders;

**7.** From the following table, write a SQL query to find the minimum purchase amount.

**Solution:** select min (purch\_amt) from orders;

**8.** From the following table, write a SQL query to find the highest grade of the customers in each city. Return city, maximum grade.

**Solution:** select city,max (grade) from customer group by city;

**9.** From the following table, write a SQL query to find the highest purchase amount ordered by each customer. Return customer ID, maximum purchase amount.

**Solution:** select customer\_id,max (purch\_amt) from orders group by customer\_id;

**10.** From the following table, write a SQL query to find the highest purchase amount ordered by each customer on a particular date. Return, order date and highest purchase amount.

**Solution:** select customer\_id,ord\_date,max(purch\_amt) from orders group by customer\_id,ord\_date;

**11.** From the following table, write a SQL query to determine the highest purchase amount made by each salesperson on '2012-08-17'. Return salesperson ID, purchase amount

**Solution:** select salesman\_id,max(purch\_amt) from orders where ord\_date='2012-08-17' group by salesman\_id;

**12.** From the following table, write a SQL query to find the highest order (purchase) amount by each customer on a particular order date. Filter the result by highest order (purchase) amount above 2000.00. Return customer id, order date and maximum purchase amount.

**Solution:** select customer\_id,ord\_date,max(purch\_amt) from orders group by customer\_id,ord\_date having max(purch\_amt)>2000.00;

**13.** From the following table, write a SQL query to find the maximum order (purchase) amount in the range 2000 - 6000 (Begin and end values are included.) by combination of each customer and order date. Return customer id, order date and maximum purchase amount.

**Solution:** select customer\_id,ord\_date,max(purch\_amt) from orders group by customer\_id,ord\_date having max(purch\_amt) between 2000 and 6000;

**14.** From the following table, write a SQL query to find the maximum order (purchase) amount based on the combination of each customer and order date. Filter the rows for maximum order (purchase) amount is either 2000, 3000, 5760, 6000. Return customer id, order date and maximum purchase amount.

**Solution:** select customer\_id,ord\_date,max(purch\_amt) from orders group by customer\_id,ord\_date having max(purch\_amt) in(2000,3000,5760,6000);

**15.** From the following table, write a SQL query to determine the maximum order amount for each customer. The customer ID should be in the range 3002 and 3007(Begin and end values are included.). Return customer id and maximum purchase amount.

**Solution:** select customer\_id,max(purch\_amt) from orders where customer\_id between 3002 and 3007 group by customer\_id;

**16.** From the following table, write a SQL query to find the maximum order (purchase) amount for each customer. The customer ID should be in the range 3002 and 3007(Begin and end values are included.). Filter the rows for maximum order (purchase) amount is higher than 1000. Return customer id and maximum purchase amount.

**Solution:** select customer\_id,max(purch\_amt) from orders where customer\_id between 3002 and 3007 group by customer\_id having max(purch\_amt)>1000;

**17.** From the following table, write a SQL query to determine the maximum order (purchase) amount generated by each salesperson. Filter the rows for the salesperson ID is in the range 5003 and 5008 (Begin and end values are included.). Return salesperson id and maximum purchase amount.

**Solution:** select salesman\_id,max(purch\_amt) from orders where salesman\_id between 5003 and 5008 group by salesman\_id;

**18.** From the following table, write a SQL query to count all the orders generated on '2012-08-17'. Return number of orders.

**Solution:** select count(\*) from orders where ord\_date='2012-08-17';

**19.** From the following table, write a SQL query to count the number of salespeople in a city. Return number of salespeople.

**Solution:** select count(salesman\_id) from salesman where city is not null;

**20.** From the following table, write a SQL query to count the number of orders based on the combination of each order date and salesperson. Return order date, salesperson id.

**Solution:**SELECT ord\_date,salesman\_id,COUNT(\*) FROM orders GROUP BY ord\_date,salesman\_id;

**21.** From the following table, write a SQL query to calculate the average product price. Return average product price.

**Solution:** select avg(PRO\_PRICE) as "Average Price" from item\_mast;

**22.** From the following table, write a SQL query to count the number of products whose price are higher than or equal to 350. Return number of products.

**Solution:** select count(PRO\_ID) as "Number of Products" from item\_mast where PRO\_PRICE>=350;

**23.** From the following table, write a SQL query to compute the average price for unique companies. Return average price and company id.

**Solution:** select avg(PRO\_PRICE) AS "Average Price",PRO\_COM as "Company ID" from item\_mast group by PRO\_COM;

**24.** From the following table, write a SQL query to compute the sum of the allotment amount of all departments. Return sum of the allotment amount.

**Solution:** select sum(DPT\_ALLOTMENT) from emp\_department;

**25.** From the following table, write a SQL query to count the number of employees in each department. Return department code and number of employees.

**Solution:** select EMP\_DEPT,count(EMP\_IDNO) from emp\_details group by emp\_dept;