Practice MySQL-4

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Create the following table ‘**order’** in your database.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **ord\_no** | **purch\_amt** | **ord\_date** | **customer\_id** | **salesman\_id** |
| 70001 | 150.5 | 2021-10-05 | 3005 | 5002 |
| 70009 | 270.65 | 2021-09-10 | 3001 | 5005 |
| 70002 | 65.26 | 2021-10-05 | 3002 | 5001 |
| 70004 | 110.5 | 2021-08-17 | 3009 | 5003 |
| 70007 | 948.5 | 2021-09-10 | 3005 | 5002 |
| 70005 | 2400.6 | 2021-07-27 | 3007 | 5001 |
| 70008 | 5760 | 2021-09-10 | 3002 | 5001 |
| 70010 | 1983.43 | 2021-10-10 | 3004 | 5006 |
| 70003 | 2480.4 | 2021-10-10 | 3009 | 5003 |
| 70012 | 250.45 | 2021-06-27 | 3008 | 5002 |
| 70011 | 75.29 | 2021-08-17 | 3003 | 5007 |
| 70013 | 3045.6 | 2021-04-25 | 3002 | 5001 |

Create the following table ‘**customer’** in your database.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **customer\_id** | **cust\_name** | **city** | **grade** | **salesman\_id** |
| 3002 | Nawab Salimullah | Dhaka | 100 | 5001 |
| 3007 | Abdul Halim | Dhaka | 200 | 5001 |
| 3005 | Purna Das | Comilla | 200 | 5002 |
| 3008 | Shamsul Huda | Chottogram | 300 | 5002 |
| 3004 | Surya Sen | Bogra | 300 | 5006 |
| 3009 | Haji Sharatullah | Khulna | 100 | 5003 |
| 3003 | Pritilata Waddedar | Sylhet | 200 | 5007 |
| 3001 | Abdus Salam | Chottogram | 400 | 5005 |

Create the following table ‘**salesman’** in your database.

|  |  |  |  |
| --- | --- | --- | --- |
| **salesman\_id** | **name** | **city** | **commission** |
| 5001 | Nasima Akhter | Dhaka | 0.15 |
| 5002 | Amit Chakma | Bogra | 0.13 |
| 5005 | Azizul Haque | Chottogram | 0.11 |
| 5006 | Tanzima Hoque | Bogra | 0.14 |
| 5007 | Fazle Hossain | Barisal | 0.13 |
| 5003 | Zahid hasan | Mymensingh | 0.12 |

**Answer the following queries with this table:**

1. Write a SQL statement to find the total purchase amount of all orders.

**SELECT SUM(purch\_amt) AS total\_purchase\_amount**

**-> FROM orders;**

1. Write a SQL statement to find the average purchase amount of all orders.

**SELECT AVG(purch\_amt) AS average\_purchase\_amount**

**-> FROM orders;**

1. Write a SQL statement to find the number of salesmen currently listing for all of their customers.

**SELECT COUNT(DISTINCT salesman\_id) AS number\_of\_salesmen**

**-> FROM customer;**

1. Write a SQL statement know how many customer have listed their names.

**SELECT COUNT(DISTINCT customer\_id) AS number\_of\_customers**

**-> FROM customer;**

1. Write a SQL statement find the number of customers who gets at least a gradation for his/her performance.

**SELECT COUNT(DISTINCT customer\_id) AS number\_of\_customers**

**-> FROM customer**

**-> WHERE grade IS NOT NULL AND grade > 0;**

1. Write a SQL statement to get the maximum purchase amount of all the orders.

**SELECT MAX(purch\_amt) AS max\_purchase\_amount**

**-> FROM orders;**

1. Write a SQL statement to get the minimum purchase amount of all the orders.

**SELECT MIN(purch\_amt) AS min\_purchase\_amount**

**-> FROM orders;**

1. Write a SQL statement which selects the highest grade for each of the cities of the customers.

**SELECT city, MAX(grade) AS highest\_grade**

**-> FROM customer**

**-> GROUP BY city**;

1. Write a SQL statement to find the highest purchase amount ordered by the each customer with their ID and highest purchase amount.

**SELECT customer\_id, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> GROUP BY customer\_id;**

1. Write a SQL statement to find the highest purchase amount ordered by the each customer on a particular date with their ID, order date and highest purchase amount.

**SELECT customer\_id, ord\_date, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> GROUP BY customer\_id, ord\_date;**

1. Write a SQL statement to find the highest purchase amount on a date '2021-08-17' for each salesman with their ID.

**SELECT salesman\_id, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> WHERE ord\_date = '2021-08-17'**

**-> GROUP BY salesman\_id;**

1. Write a SQL statement to find the highest purchase amount with their ID and order date, for only those customers who have highest purchase amount in a day is more than 2000.

**SELECT customer\_id, ord\_date, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> GROUP BY customer\_id, ord\_date**

**-> HAVING MAX(purch\_amt) > 2000;**

1. Write a SQL statement to find the highest purchase amount with their ID and order date, for those customers who have a higher purchase amount in a day is within the range 2000 and 6000.

**SELECT customer\_id, ord\_date, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> GROUP BY customer\_id, ord\_date**

**-> HAVING MAX(purch\_amt) BETWEEN 2000 AND 6000;**

1. Write a SQL statement to find the highest purchase amount with their ID and order date, for only those customers who have a higher purchase amount in a day is within the list 2000, 3000, 5760 and 6000.

**SELECT customer\_id, ord\_date, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> GROUP BY customer\_id, ord\_date**

**-> HAVING MAX(purch\_amt) IN (2000, 3000, 5760, 6000);**

1. Write a SQL statement to find the highest purchase amount with their ID, for only those customers whose ID is within the range 3002 and 3007.

**SELECT customer\_id, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> WHERE customer\_id BETWEEN 3002 AND 3007**

**-> GROUP BY customer\_id;**

1. Write a SQL statement to display customer details (ID and purchase amount) whose IDs are within the range 3002 and 3007 and highest purchase amount is more than 1000.

**SELECT customer\_id, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> WHERE customer\_id BETWEEN 3002 AND 3007**

**-> GROUP BY customer\_id**

**-> HAVING MAX(purch\_amt) > 1000;**

1. Write a SQL statement to find the highest purchase amount with their ID, for only those salesmen whose ID is within the range 5003 and 5008.

**SELECT salesman\_id, MAX(purch\_amt) AS highest\_purchase\_amount**

**-> FROM orders**

**-> WHERE salesman\_id BETWEEN 5003 AND 5008**

**-> GROUP BY salesman\_id;**

1. Write a SQL statement that counts all orders for a date August 17th, 2021.

**SELECT COUNT(\*) AS order\_count**

**-> FROM orders**

**-> WHERE ord\_date = '2021-08-17';**

1. Write a SQL statement that count the number of salesmen for whom a city is specified. Note that there may be spaces or no spaces in the city column if no city is specified.

**SELECT COUNT(DISTINCT salesman\_id)**

**-> FROM salesman**

**-> WHERE TRIM(city) <> '';**

1. Write a query that counts the number of salesmen with their order date and ID registering orders for each day.

**SELECT ord\_date, salesman\_id, COUNT(DISTINCT salesman\_id) AS num\_salesmen**

**-> FROM orders**

**-> GROUP BY ord\_date, salesman\_id;**