CS 315 Modern Database Management Fall 2016

Northeastern Illinois University

SQL Exercise Sheet

Create the following tables in your local MySQL database and write the queries in your SQL editor.

Aggregate Function Exercises

Table name: customers

| customer_id | cust_name | city | grade | ${\tt salesman_id}$ |
|-------------|--------------|------------|-------|----------------------|
| | | | | |
| 3002 | Nick Rimando | New York | 100 | 5001 |
| 3005 | Graham Zusi | California | 200 | 5002 |
| 3001 | Brad Guzan | London | | 5005 |
| 3004 | Fabian Johns | Paris | 300 | 5006 |
| 3007 | Brad Davis | New York | 200 | 5001 |
| 3009 | Geoff Camero | Berlin | 100 | 5003 |

- 1. Create SQL code that shows how many customer have listed their names.
- 2. Create SQL code that selects the highest grade for each of the cities of the customers.
- **3.** Create SQL code that find the number of customers who gets at least a gradation for his/her performance.

Table name: orders

| ord_no | purch_amt | ord_date | customer_id | salesman_id |
|--------|-----------|------------|-------------|-------------|
| | | | | |
| 70001 | 150.5 | 2012-10-05 | 3005 | 5002 |
| 70009 | 270.65 | 2012-09-10 | 3001 | 5005 |
| 70002 | 65.26 | 2012-10-05 | 3002 | 5001 |
| 70004 | 110.5 | 2012-08-17 | 3009 | 5003 |
| 70007 | 948.5 | 2012-09-10 | 3005 | 5002 |
| 70005 | 2400.6 | 2012-07-27 | 3007 | 5001 |

- 4. Create SQL code that finds the total purchase amount of all orders.
- **5.** Create SQL code that finds the average purchase amount of all orders.

- **6.** Create SQL code that to finds the number of salesmen currently listing for all of their customers.
- 7. Create SQL code that gets the maximum purchase amount of all the orders.
- **8.** Create SQL code that gets the minimum purchase amount of all the orders.
- **9.** Create SQL code that finds the highest purchase amount ordered by the each customer with their ID and highest purchase amount.
- **10.** Create SQL code that finds the highest purchase amount ordered by the each customer on a particular date with their ID, order date and highest purchase amount.
- **11.** Create SQL code that finds the highest purchase amount on a date '2012-08-17' for each salesman with their ID.
- **12.** Create SQL code that finds 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.
- **13.** Create SQL code that finds 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.
- **14.** Create SQL code that finds the highest purchase amount with their ID, for only those customers whose ID is within the range 3002 and 3007.

Table name: salesman

| salesman_id | name | city | commission |
|-------------|------------|----------|------------|
| | | | |
| 5001 | James Hoog | New York | 0.15 |
| 5002 | Nail Knite | Paris | 0.13 |
| 5005 | Pit Alex | London | 0.11 |
| 5006 | Mc Lyon | Paris | 0.14 |
| 5003 | Lauson Hen | | 0.12 |
| 5007 | Paul Adam | Rome | 0.13 |

- 16. Create SQL code that counts the number of different non NULL city values for salesmen.
- **17.** Create SQL code that counts the number of salesmen with their order date and ID registering orders for each day.

Joins Exercises

| salesman_id | name | city | commission |
|-------------|------------|----------|------------|
| | | | |
| 5001 | James Hoog | New York | 0.15 |
| 5002 | Nail Knite | Paris | 0.13 |
| 5005 | Pit Alex | London | 0.11 |
| 5006 | Mc Lyon | Paris | 0.14 |
| 5003 | Lauson Hen | | 0.12 |
| 5007 | Paul Adam | Rome | 0.13 |

| customer_id | cust_name | city | grade | ${\tt salesman_id}$ |
|-------------|--------------|------------|-------|----------------------|
| | | | | |
| 3002 | Nick Rimando | New York | 100 | 5001 |
| 3005 | Graham Zusi | California | 200 | 5002 |
| 3001 | Brad Guzan | London | | 5005 |
| 3004 | Fabian Johns | Paris | 300 | 5006 |
| 3007 | Brad Davis | New York | 200 | 5001 |
| 3009 | Geoff Camero | Berlin | 100 | 5003 |

| ord_no | purch_amt | ord_date | customer_id | salesman_id |
|--------|-----------|------------|-------------|-------------|
| | | | | |
| 70001 | 150.5 | 2012-10-05 | 3005 | 5002 |
| 70009 | 270.65 | 2012-09-10 | 3001 | 5005 |
| 70002 | 65.26 | 2012-10-05 | 3002 | 5001 |
| 70004 | 110.5 | 2012-08-17 | 3009 | 5003 |
| 70007 | 948.5 | 2012-09-10 | 3005 | 5002 |
| 70005 | 2400.6 | 2012-07-27 | 3007 | 5001 |

- **1.** Create SQL code that makes a list with order no, purchase amount, customer name and their cities for those orders which order amount between 500 and 2000.
- 2. Create SQL code that shows which salesman are working for which customer.
- **3.** Create SQL code that finds the list of customers who appointed a salesman for their jobs who gets a commission from the company is more than 12%.

| 4. Create SQL code that finds the list of customers who appointed a salesman for their jobs who does not live in same city where there customer lives, and gets a commission is above 12%. |
|---|
| 5. Create SQL code that makes a list in ascending order for the customer who works either through a salesman or by own. |