Assignment – 11 Subqueries.

1) Write a query that uses a subquery to obtain all orders for the customer named Cisneros. Assume you do not know his customer number (cnum).

Ans:

```
SELECT *
   -> FROM Orders
   -> WHERE cnum = (SELECT cnum
   -> FROM Customers
   -> WHERE cname = 'Cisneros');
```

```
mysql> SELECT *
    -> FROM Orders
    -> WHERE cnum = (SELECT cnum
    ->                FROM Customers
    ->                WHERE cname = 'Cisneros');
Empty set (0.00 sec)
```

2) Write a query that produces the names and ratings of all customers who have above-average orders.

Ans:

```
SELECT cname, rating
FROM Customers
WHERE cnum IN (
  SELECT cnum
  FROM Orders
  GROUP BY cnum
  HAVING AVG(amount) > (SELECT AVG(amount) FROM Orders)
);
```

```
mysql> SELECT cname, rating
    -> FROM Customers
    -> WHERE cnum IN (
    ->     SELECT cnum
    ->     FROM Orders
    ->     GROUP BY cnum
    ->     HAVING AVG(amount) > (SELECT AVG(amount) FROM Orders)
    -> );
Empty set (0.00 sec)
```

3) Write a query that selects the total amount in orders for each salesperson for whom this total is greater than the amount of the largest order in the table.

Ans:

```
SELECT snum, SUM(amount) AS total_sales
FROM Orders
GROUP BY snum
HAVING SUM(amount) > (SELECT MAX(amount) FROM Orders);
```

```
mysql> SELECT snum, SUM(amount) AS total_sales
    -> FROM Orders
    -> GROUP BY snum
    -> HAVING SUM(amount) > (SELECT MAX(amount) FROM Orders);
+------+-------------+
| snum | total_sales |
+------+-------------+
|   10 |      450.00 |
+------+-------------+
1 row in set (0.00 sec)
```