**Exercise 1**

SELECT c.customer\_id,

c.customer\_fname AS [customer\_first\_name],

c.customer\_lname AS [customer\_last\_name],

COUNT(1) AS [customer\_order\_count]

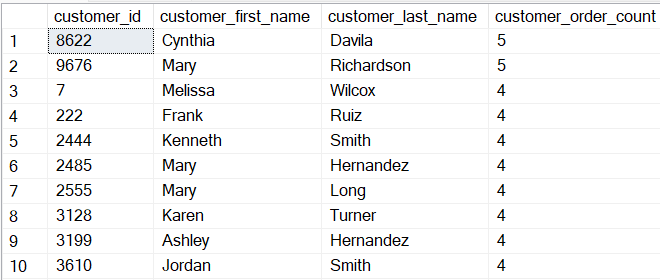
FROM customers c JOIN orders o ON

c.customer\_id = o.order\_customer\_id

WHERE FORMAT(o.order\_date, 'yyyy-MM') LIKE '2014-01'

GROUP BY c.customer\_id, c.customer\_fname, c.customer\_lname

ORDER BY customer\_order\_count DESC, c.customer\_id;



**Exercise 2**

SELECT DISTINCT c.\*

FROM customers c JOIN orders o ON

c.customer\_id = o.order\_customer\_id

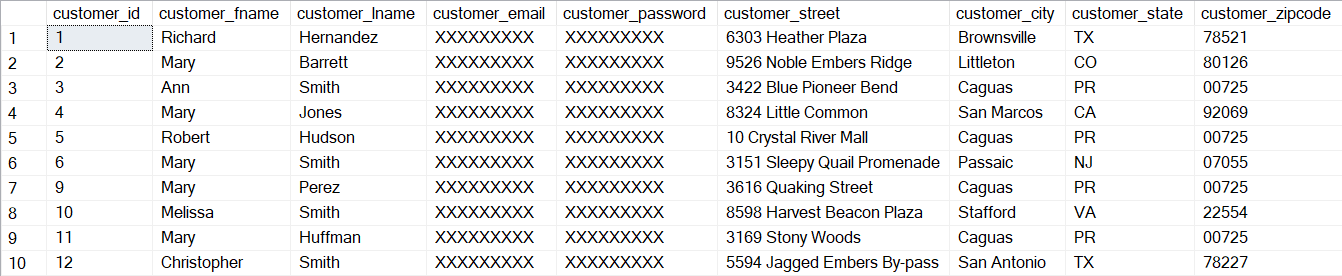
WHERE o.order\_customer\_id NOT IN (SELECT order\_customer\_id

FROM orders

WHERE FORMAT(order\_date, 'yyyy-MM') LIKE '2014-01')

ORDER BY c.customer\_id

;



**Exercise 3**

SELECT c.customer\_id, c.customer\_fname AS [customer\_first\_name],

c.customer\_lname AS [customer\_last\_name],

CASE WHEN SUM(oi.order\_item\_subtotal) IS NOT NULL

THEN SUM(oi.order\_item\_subtotal)

ELSE 0 END AS [customer\_revenue]

FROM customers c LEFT JOIN orders o ON

c.customer\_id = o.order\_customer\_id

LEFT JOIN order\_items oi ON

o.order\_id = oi.order\_item\_order\_id

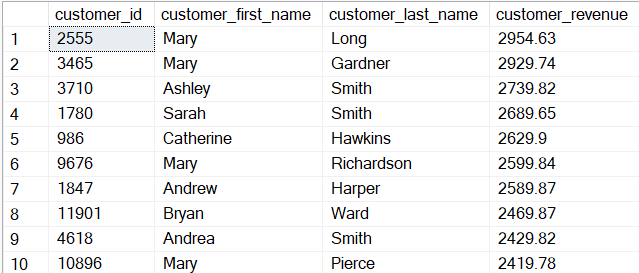
AND FORMAT(o.order\_date, 'yyyy-MM') LIKE '2014-01'

AND o.order\_status IN ('COMPLETE', 'CLOSED')

GROUP BY c.customer\_id, c.customer\_fname, c.customer\_lname

ORDER BY customer\_revenue DESC, c.customer\_id;

;



**Exercise 4**

SELECT c.category\_id, c.category\_department\_id, c.category\_name,

ROUND(SUM(oi.order\_item\_subtotal), 2) AS [category\_revenue]

FROM orders o JOIN order\_items oi ON

o.order\_id = oi.order\_item\_order\_id

JOIN products p ON

oi.order\_item\_product\_id = p.product\_id

JOIN categories c ON

p.product\_category\_id = c.category\_id

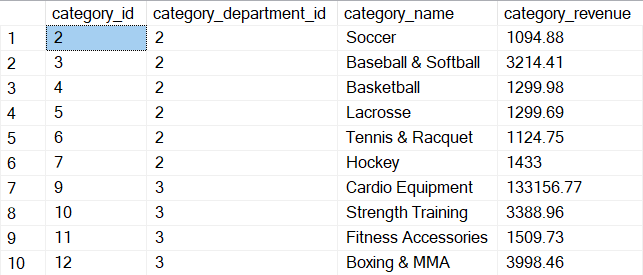
WHERE FORMAT(o.order\_date, 'yyyy-MM') LIKE '2014-01'

AND o.order\_status IN ('COMPLETE', 'CLOSED')

GROUP BY c.category\_id, c.category\_department\_id, c.category\_name

ORDER BY c.category\_id

;



**Exercise 5**

SELECT d.department\_id, d.department\_name,

COUNT(p.product\_id) AS [product\_count]

FROM products p JOIN categories c ON

p.product\_category\_id = c.category\_id

RIGHT JOIN departments d ON

c.category\_department\_id = d.department\_id

GROUP BY d.department\_id, d.department\_name

ORDER BY d.department\_id

;

