

# Generating insights from data

*Example answers to the assignment. You are encouraged to discuss if these differ from your answers. Yours might be better....*

## 1) Customer names from orders

```
SELECT customers.firstName, customers.lastName
FROM orders
INNER JOIN customers ON orders.customer_id = customers.id
GROUP BY customers.lastName
ORDER BY customers.lastName
```

## 2) Customer without orders

```
SELECT customers.firstName, customers.lastName, orders.id
FROM customers
LEFT JOIN orders ON customers.id = orders.customer_id
WHERE orders.id IS NULL
```

## 3) Count the countries the customers are from

```
SELECT COUNT(*) AS Rows, country
FROM customers
GROUP BY country
ORDER BY country
```

## 4) Who bought the most products (optional)

```
SELECT COUNT(products.name) AS qty, customers.firstName,
customers.lastName, customers.email, products.name,
products.description

FROM customers

JOIN orders
ON orders.customer_id = customers.id
```

```
JOIN products_in_orders
ON products_in_orders.order_id = orders.id

JOIN products
ON products.id = products_in_orders.product_id

GROUP BY products.name, customers.email
ORDER BY qty DESC
```

## 5) Most valuable customer (optional)

```
SELECT COUNT(products.name) AS qty,
COUNT(products.name)*products.price AS value,
customers.firstName, customers.lastName, customers.email,
products.name, products.description, products.price

FROM customers

JOIN orders
ON orders.customer_id = customers.id

JOIN products_in_orders
ON products_in_orders.order_id = orders.id

JOIN products
ON products.id = products_in_orders.product_id

GROUP BY products.name, customers.email
ORDER BY value DESC
```