Question 2

(a)   How many orders were shipped by Speedy Express in total?

We need to find the number of orders that are shipped by the shipper – Speedy Express.
To select orders corresponding to the mentioned shipper we can first join the 2 tables – orders and shippers on shipper id and then only select the rows where shipper name is Speedy Express and then the order IDs can be counted.

```
select count(distinct OrderID) AS orders_by_speedify from Orders as orders
join shippers AS shippers
on orders.ShipperID = shippers.ShipperID
where ShipperName = 'Speedy Express';
```

Result

orders_by_speedify

54

The answer is - **54**

(b)   What is the last name of the employee with the most orders?

For this we can merge the orders and employees table on employee id and get the employee with max orders by grouping and ordering.

```
emp.LastName as LastName,
count(orders.EmployeeID) as TotalOrders from orders orders
left join Employees emp on orders.EmployeeId = emp.EmployeeID
group by orders.EmployeeID
order by count(orders.EmployeeId) desc
limit 1;
```

Result

EmployeeID	LastName	TotalOrders
4	Peacock	40

The answer is - **Peacock**

(c)   What product was ordered the most by customers in Germany?

Since, we need the product name, therefore it is a good idea to start with the products table and then keep joining other tables to it to get the final result. We ultimately want to select

customers residing in Germany from the customers table and then map those customers to corresponding orders. Now in this subset of orders we want to find the products and their quantities that were a part of specific order. Finally, we can group the rows in orderdetails by product id which will help us in adding the individual order quantities. The result can be achieved by ordering the total quantities of the products.

```
select p.ProductId, p.ProductName, sum(ord.quantity) as TotalQuantity from products p
left join orderdetails ord on p.ProductID=ord.ProductID
left join orders o on ord.OrderID=o.OrderID
left join customers c on o.CustomerID=c.CustomerID
where c.country="Germany"
group by p.ProductID
order by TotalQuantity desc
limit 1;
```

Result

ProductID	ProductName	TotalQuantity
40	Boston Crab Meat	160

The answer is – **Boston Crab Meat**