

Aggregate Functions

Task 1

Open the file called **Countries** Databases –This database has two tables called City and Country.

Field Name
countryName
countryCode
capital
area
totalPopulation

Field Name
cityID
cityName
countryCode
population
longitude
latitude

Use SQL queries to display each set of required details.

1. List the largest, smallest and average area of all the countries (the average should be rounded to 1 decimal place).
2. List the number of countries that have an area over one million kilometres squared.
3. List the combined area of all countries with a name that starts with 'D'.
4. List the combined population of all the cities located in Germany.
5. List each country code together with the total population of the cities in that country. The only country codes listed should be those that have exactly two letters ending with the letter 'a'.
6. List the total population of the capital cities of any country that has the pattern 'am' in its country name.
7. List the name of each country that has at least two words in its name together with the combined population of the cities in each country. The only countries that should be listed are those with a total country population which is over 11 million.
8. List the name of each country and the number of cities in that country (the countries that are listed should be those that contain the letter 'i' somewhere in the name of the country which also ends with the letter 'a'). This list of countries should be displayed in descending order of number of cities; where this is equal, the results should be displayed in alphabetical order of country name.

Task 2

Open the file called **Product Supplier** Database – This database has five tables, Customer, CustomerOrder, OrderProduct, Product and Supplier.

Customer	
	Field Name
🔑	customerID
	shopName
	address
	city
	postcode
	contactName
	email

Product	
	Field Name
🔑	productID
	supplierID
	name
	price
	description
	stockLevel

Supplier	
	Field Name
🔑	supplierID
	name
	address
	city
	postcode

CustomerOrder	
	Field Name
🔑	orderNumber
	orderDate
	customerID

OrderProduct	
	Field Name
🔑	orderNumber
🔑	productID
	quantity

Use SQL queries to display each set of required details.

1. List the name of each supplier together with the average price of the products that they supply (round the average to 2 decimal places).
2. List the name of each shop together with the largest and the average number of products ordered by the shop (round the average to 1 decimal place).
3. List the name of each shop and the number of orders that the shop has placed. The shop with the largest number of orders should be listed first; shops with the same number of orders should be listed alphabetically.
4. List each order number together with the number of different products ordered in each order.
5. List the name of each supplier together with the total value of the products that they supply. These details should be listed from largest to smallest value.
6. List the name of each product that has been ordered with the combined total quantity of the product that has been ordered. The products should be listed from largest combined total to smallest; product with the same combined total should be listed alphabetically by product name.
7. List the name of each shop and the total number of bears that have been ordered by the shop. The shop that has ordered the smallest number of bears should be listed first.
8. List the name of each shop, the order number of any orders placed by the shop, the date and the total cost of those orders. Arrange these details in alphabetical order of shop name; where a shop has placed two or more orders, the most recent order should be listed first.

