

## Higher Computing Science

### Database Implementation: Computed Fields and Aliases

#### Exercise 8

##### Task 1

Open the file called SimpleBreaks Database. This database has two tables, Holiday and Hotel.

Holiday	
	Field Name
🔑	Title
	Destination
	Country
	dateOfDeparture
	Nights
	hotelRef

Hotel	
	Field Name
🔑	hotelRef
	hotelName
	City
	starRating
	pricePerNight
	kilometresFromAirport

Create SQL queries to display the required details. An alias should be used to display a meaningful heading for each computed field.

1. Due to the opening of a new bypass, the travel distance between each hotel in the city of Madrid and the airport has been reduced by 2.8Km.

A query is used to list the title of all holidays affected together with the name of the hotels used, the original distance from the airport and the updated distance due to the new bypass.

2. Rome has introduced a new city tax that costs £7.25 per night.

A query is used to list the name of each hotel in Rome, the cost per night together with the tax inclusive price per night and the equivalent tax inclusive cost in Euros. The hotels should be listed from dearest tax inclusive cost to least (£1 is equivalent to €1.13).

3. Due to their popularity, the duration of all holidays with 'budget' in their title has been increased by 1 night and the price per night of the hotels used for these holidays has been increased by 10%

A query is used to list the title of each affected holiday and the name of the hotels used, the duration of each holiday and the original price per night of the hotels used. The query should also show the updated duration and price per night.

4. A query is used to list the title of all holidays to Spain, the name of the hotels used, the duration of each holiday and the price per night. The query should show the total cost of each holiday. The holidays should be listed from dearest to cheapest; holidays that cost the same should be listed in alphabetical order of holiday title.

- A query is used to list the details of all holidays to hotels with at least 4 stars that have a total cost less than £200. The holiday details should include the title of each holiday, the name of each hotel, the country and city of each destination, the star rating and the total cost of the holiday.

## 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

CustomerOrder	
	Field Name
🔑	orderNumber
	orderDate
	customerID

OrderProduct	
	Field Name
🔑	orderNumber
🔑	productID
	quantity

Product	
	Field Name
🔑	productID
	supplierID
	name
	price
	description
	stockLevel

Supplier	
	Field Name
🔑	supplierID
	name
	address
	city
	postcode

Create SQL queries to display the required details. An alias should be used to display a meaningful heading for each computed field.

- List the name of each product included in order 20006 with its price and the quantity ordered. The order number and total cost of each item should be shown.
- List all of the products supplied by the supplier called 'Fun and Games'. The listing should show the name of each product together with its price and discounted price (Fun and Games plans to offer a seasonal discount of 10% on all of its products).
- List each of the products included in order 20007 with its productID and quantity ordered. The query should show the increased quantity should the customer increase the quantity of all 'bean bag' products in the order by 20.
- The shop called 'The Toy Shop' wants to increase the number of each type of bean bag in its order by 25.

Use a query to list the name of the shop with the name of its contact person, the original quantity, price, description and the updated quantity of all bean bags in the order.