

## Higher Computing Science

### Database Implementation: Calculations and Computed Fields

Make a second copy of the original database called Calculations.

Use SQL queries to amend the required data in the tables of this database.

1. The table called Question1 stores the test results of several pupils.

Field Name
pupilID
Forename
Surname
test1
test2
test3
test4

All of the test 3 results have been totalled incorrectly.

Use a SQL query to add 1 to each of the test 3 results.

2. The table called Question2 stores the hours worked and hourly rate of some staff members.

Field Name
staffID
Forename
Surname
hourlyRate
hoursWorked

Members of staff who earn less than £7 per hour are due to receive a 10% pay rise.

Use a SQL query to amend the required details of the relevant records.

3. The table called Question3 stores the details of students and the marks they achieved in monthly tests.

Field Name
Forename
Surname
test1
test2
test3
test4
test5

Both students whose surname starts with the letter 'J' have found errors in their test results for test 2 and test 4.

Use a single SQL query to increase each of their test 2 results by 2 marks and each of their test 4 results by 1 mark.

4. The table called Question4 stores details of items for sale in the school tuckshop. All price shown are in pence.

Field Name
productID
productName
buyingPrice
sellingPrice

The buying price of the product with a product name ending in 'e', has been reduced by 3 pence. At the same time, the selling price is being updated to make a profit of 45% of the revised buying price.

Use a single SQL query to alter the buying price and selling price of the relevant product.

5. The table called Question5 stores details of products and their UK prices.

Field Name
productName
productID
priceUK

Some of the product names in this table contain the letter 'a' followed by another letter which in turn, is followed by a space. The price of these products is to be increased by 5%.

Use a SQL query to amend the relevant records.

6. The table called Question6 stores details of fish sales for a fish wholesaler.

Field Name
fishType
pricePerKilo
numberOfKilos

Every week, the wholesaler reduces the price of some of the fish.

This week, the second letter of each type of fish reduced is the letter 'o' and each type of reduced fish has at least 4 letters.

Use a single SQL query to reduce the price of these fish by 10% but at the same time, double to number of kilos of the fish sold.