# 01-2 Exploring Data with SQL Databases - Workbook

Student Name:

Student Email:

# **Task 2: Select a Table**

* 1. Import the create\_databases.sql script in MySQL
  + See “Task 1”
* 2. Set the sql\_store database to be used
* 3. Select all data from the customers table
* 4. Select the following from the customers table
  + First\_name, last\_name and points
* 5. Using the result from step 4
  + Select from the customers table where
  + customer\_id is 2
  + Order by the last\_name
  + Optional: What happens if you change the order of the of the columns requested in step 4?

# **Task 3: Math Operators**

* Using the already imported database
* 1. Return all products in the database
  + Columns should include
    - name
    - unit price
    - new price
      * Based on (unit price \* 1.1)
  + To rename a column add the AS keyword to the end of the column name
    - Example:

A close-up of a computer code

Description automatically generated

# **Task 4: Conditional Operators**

* Using the already imported database
* 1. Using the order\_items table
  + Get the items WHERE:
    - Order #6
    - Where the total price of combined item quantity is greater than 30
      * Hint:
        + Use quantity and unit\_price

# **Task 5: Conditional Operators 2**

* Using the already imported database

1. Using the products table, get the items where quantity in stock is equal to 49, 38 or 72

* + Must use the IN operator

1a. How many products are returned? (Show results)

2. Using the customers table, return customers born between 1/1/1990 and 1/1/2000

* + Must use the BETWEEN operator

2.a How many products are returned? (Show results)

3. Get customers whose addresses contain ‘Trail’ or ‘Avenue’, and Phone numbers end with ‘9’

* + - Must use the LIKE operator

3.a How many customers are returned? (Show results)

# **Task 6: Conditional Operators 3**

* Using the already imported database, get customers who:

1. First names are ELKA or AMBUR

2. Last names end with EY or ON

3. Last names end with MY or contains SE

4. Last names containing a B, followed by R or U

5. Using the orders table

* + Get the orders that are not shipped
    - Using NULL

6. Upload in a PDF document with screenshots or each steps Query and Result to Teams

Optional: Experiment with REGEXP expressions

* + - Look up extra special characters that can be used with REGEXP

# **Task 7: Order By**

* Using the already imported database

1. Using order\_items table

* + Get all orders with order\_id 2
  + Sort in descending order
  + By the total price for each item
    - Quantity \* unit\_price

2. Get the top three loyal customers

* + More points than anyone else

5. Upload in a PDF document with screenshots or each steps Query and Result to Teams

# **Task 8: Join**

* Using the already imported database

1. Using order\_items table and products table

* + Inner Join order\_items with the products table
  + For each order
    - Return
    - The order\_id
    - The product\_id
    - The product name
    - The product quantity
    - The product unit\_price