PROG2220: S.Q.L. (MySQL)
Assignment 5

Assignment Type: INDIVIDUAL

Due Date: Week 11

Note: Review the output files provided (XXA05*.out). *Display the question headers in your output files.*

Topic: Data Types, Functions and Views

Warm Up: Textbook Exercises

Do all the **Chapter 8** textbook exercises (page 239), **Chapter 9** textbook exercises (pages 272-273), and **Chapter 12** textbook exercises (page 370). Compare your solution to the textbook exercise solutions under G:\mysql\ex_solutions. Do not submit your textbook exercise solution.

Task 1. My Guitar Shop (MGS) Database

Save your solution to **XXA05Task1.sql**. Redirect your output to **XXA05Task1.out**.

Assumption: You have MGS database created from G:\mysql\mgs_ex_starts\create_my_guitar_shop.sql (part of Lab 2).

Q1. MGS Exercise 8-1 [5 points]

Write a SELECT statement that returns these columns from the Products table:

- A column that uses the FORMAT function to return the list_price column with 2 digits to the right of the decimal point
- A column that uses the CAST function to return the discount_percent column as an integer
- A column named discount_amount that uses the list_price and discount_percent columns to calculate the discount amount and uses the ROUND function to round the result so it has 2 decimal digits
- A column named month_day_added that uses the DATE_FORMAT function (as part of your solution) to return the date_added column in this format: MM-DD.

Hint: Refer to the Textbook Exercises 8-01 and 8-02 (page 239).

Q2. MGS Exercise 9-2 [5 points]

Write a SELECT statement that returns these columns from the Orders table:

- The order_date column
- A column that uses the DATE_FORMAT function to return the four-digit year that's stored in the order_date column
- A column that uses the DATE_FORMAT function to return the order_date column in this format: Mon-DD-YYYY.
- A column that uses the DATE_FORMAT function to return the order_date column with only the hours, minutes and seconds on a 12-hour clock with an am/pm indicator.
- A column that uses the DATE_FORMAT function to return the order_date column in this format: MM/DD/YY HH:MI.

Q3. MGS Exercise 9-3 [5 points]

Write a SELECT statement that returns these columns from the Orders table:

- The card_number column
- The length of the card_number column
- The last four digits of the card_number column

When you get that working right, add a column that displays the last four digits of the card_number column in this format: XXXX-XXXX-XXXX-1234. In other words, use Xs for the first 12 digits of the card number and actual numbers for the last four digits of the number.

Q4. MGS Exercise 9-4 [5 points]

Write a SELECT statement that returns these columns from the Orders table:

- The order_id column
- The order_date column
- A column named est_ship_date that's calculated by adding 2 days to the order_date column
- The ship_date column, substituting 'Not Shipped' for NULL ship_date values
- A column named days_to_ship that shows the number of days between the order date and the ship date

When you have this working, add a WHERE clause that retrieves just the orders for April 2015. Do not use the UNION operator.

Task 2. Software Expert (SWE) Database

Save your solution to **XXA05Task2.sql**. Redirect your output to **XXA05Task2.out**.

Important: Your output must be formatted and aligned properly.

Assumption: You have SWE database created from G:\mysql\swexpert\swexpert.sql (part of Lab 3).

Q1. SWE Exercise 1 [5 points]

Display the average evaluation score for consultant 'Janet Park'. You must use 'Janet Park' name in your solution (Hint: Use the CONCAT_WS function). Round the retrieved value to two decimal places.

Q2. SWE Exercise 2 [5 points]

Write a SELECT statement that returns these columns from the Project Consultant table:

- project id: Pad spaces to align the output values with the column heading
- consultant id: Pad spaces to align the output values with the column heading
- months: Number of months between ROLL_OFF date and ROLL_ON date. Use 30.4 days in a month to convert number of days to number of months. Truncate the total months. Align to the right (Hint: use LPAD function).

Q3. SWE Exercise 3 [5 points]

Write a SELECT statement that returns the consultant, skill and certification status by displaying these columns:

- c_id
- consultant full name (include the last name and first name separated by a comma)
- skill_id
- certification: Use CASE function to display 'Certified' for 'Y', 'Not Certified' for 'N', otherwise 'Unknown'.

Important: ***For all columns, pad spaces to align the output values with the column heading***

Task 3. Chapter 12 (Views) My Guitar Shop (MGS) Database

Save your solution to **XXA05Task3.sql**. Redirect your output to **XXA05Task3.out**.

Assumption: You have MGS database created from G:\mysql\mgs_ex_starts\create_my_guitar_shop.sql (part of Lab 2).

Q1. MGS Exercise 12-3 [5 points]

a. Create a view named **XX_order_item_products** (where XX is your initials in upper case) that returns columns from the Orders, Order_Items, and Products tables. This view should return these columns from the **Orders** table: order_id, and order_date. This view should return these columns from the **Order_Items** table: item_price, discount_amount, final_price (the discount amount subtracted from the item price), quantity, and item_total (the calculated total for the item). This view should return the product_name column from the **Products** table.

b. Display all the records using the newly created view.

Q2. MGS Exercise 12-4 [3 points]

Write a SELECT statement that returns the order_id, product_name and item_total columns from the **XX_order_item_products** view ordered by the product_name first and order_id second, both ordering in ascending order.

Q3. MGS Exercise 12-5 [4 points]

Create a view named **XX_product_summary** that uses the **XX_order_item_products** view. This view should return summary information about each product. Each row should include product_name, order_count (the number of times the product has been ordered) and order_total (the total sales for the product).

Q4. MGS Exercise 12-6 [3 points]

Write a SELECT statement that uses the **XX_product_summary** view to get total sales for the five best selling products.

Assignment Submissions

Please follow the instructions below for **both the hard copy and soft copy submission**.

1. **Hard Copy Submission**

Reminder: All printouts must be stapled and submitted **in the correct sequence**!

1. Download and print the **IT Assignment Coversheet.pdf** (Assignment Cover Page and Standards Marking Sheet) posted in eConestoga. **All the sections** of the Cover page must be filled.
2. A printout of **A5Marking.pdf**
3. A printout of **XXA05Task1.sql**, where XX is your initials in upper case letters
4. A printout of **XXA05Task1.out**
5. A printout of **XXA05Task2.sql**
6. A printout of **XXA05Task2.out**
7. A printout of **XXA05Task3.sql**
8. A printout of **XXA05Task3.out**

2) **Soft Copy Submission**

1. Zip XXA05Task1.sql, XXA05Task1.out, XXA05Task2.sql, XXA05Task2.out, XXA05Task3.sql, and XXA05Task3.out **into a single zip or rar file**. You do not need to include the coversheet or A5Marking pages in the soft copy zip.
2. Submit this zip file on the Assignment 5 submission folder on eConestoga.