LaSalle College
Montréal

Simulation Final Evaluation: 40%

Course Identification

Name of programs– Codes:	COMPUTER SCIENCE TECHNOLOGY - PROGAMMING (420.BP) INFORMATION TECHNOLOGY PROGRAMMERANALYST (LEA.3Q)
Course title:	**DATABASE II**
Course number:	420-BD2-AS
Group:	
Teacher's name:	Huu Con Nguyen
Duration:	2 periods (100 minutes)
Semester:	

Student Identification

Name: _____ Student number: _____

Date: Result: _____

☐ I declare that this is an original work, and that I credited all content sources of which I am not the author (online and printed, images, graphics, films, etc.), in the required quotation and citation style for this work.

Standard of the Evaluated Competency

Statement of the evaluated competency – Code
Use a database management system - 00Q7

Evaluated elements of the competency

3. Ensure data confidentiality and consistency
4. Program automated data processing operations.

Instructions

- Permitted equipment: Your computer (BYOD)
- This is an open book exam (online).
- Please take picture of your answer of PART I and submit them using LEA
- Please submit both scripts file and spool file of PART2 using LEA
- It is the teacher's responsibility to identify language errors. If such errors are found, teachers may apply a penalty of up to 10% of the grade (IPEL – Article 5.7).
- Plagiarism, attempts at plagiarism or complicity in plagiarism during a summative evaluation results in a mark of zero (0). In the case of recidivism, in the same course or in another course, the student will be given a grade of '0' for the course in question. (IPEL – Article 5.16).
  Please write clearly.

Mark Breakdown

This examination is calculated on 100 points distributed equally on 5 questions

Part I (on paper) (40 minutes)

Question 1: (20 mark)

The structure of table inventory is as follow:

INVENTORY(InventoryID, price, size, color, quantity_on_hand)

Create a function called **your_name_f1** that accepts the inventory ID, price, and quantity_on_hand to calculate the value of the inventory using the formula:

value = price X quantity on hand

Create a procedure called **your_name_p1** that accepts inventory ID, price, size, color, and quantity_on_hand to INSERT or UPDATE table inventory (If the Inventory ID is exist, it is an UPDATE. Otherwise, it is an INSERT)

For an UPDATE, the value of the quantity on hand can be positive or negative. BUT, for an INSERT, a negative quantity on hand is considered an ERROR, please handle this kind of error.

After the UPDATE or INSERT is committed, please display the confirmation of the action performed (record updated OR record inserted) and use the function your_name_f1
to display the value of the inventory in one sentence EXACTLY as follow:
The value of inventory number **X** is **Y** dollar.
Where **X** is the inventory ID, and **Y** is the value returned from the function.

PART 2 (use computer) (120 minutes)

Question 2: (script 7clearwater)

Create a function called your_name_find_value that accepts the inventory ID, price, and quantity_on_hand to calculate the value of the inventory using the formula:

value = price X quantity on hand

Create a procedure called **your_name_p1** that accepts inventory ID, price, size, color, and quantity_on_hand to INSERT or UPDATE table inventory (If the Inventory ID is exist, it is an UPDATE. Otherwise, it is an INSERT)

For an UPDATE, the value of the quantity on hand can be positive or negative. BUT, for an INSERT, a negative quantity on hand is considered an ERROR, please handle this kind of error.

After the UPDATE or INSERT is committed, please display the confirmation of the action performed (record updated OR record inserted) and use the function your_name_find_value to display the value of the inventory in one sentence EXACTLY as follow:
The value of inventory number **X** is **Y** dollar.
Where **X** is the inventory ID, and **Y** is the value returned from the function.

Question 3: (use script 7 clearwater)

We need to display all item and inventories.
Create procedure to display all columns of table item except item_image. Under each item, display all the inventory belonged to the item (display any 4 columns of table inventory).

Question 4: (use script 7 clearwater)
Create a table to audit the table INVENTORY as follow:
CREATE TABLE audit_inventory(audit_id NUMBER, inv_id NUMBER, color VARCHAR2(25), inv_qoh NUMBER);
Create a trigger for the table inventory used to record the old inv_id, old color and old inv_qoh when the table inventory is updated.

Question 5: (run both script 7clearwater and 7software in one user's schemas for this question)
Create a package specification and package body (name the package: your_name_final) with all the procedures and functions of question 2,3
Execute the package's procedure of question 2.

Handle error when needed!

Evaluated elements of the competency	**Performance criteria**	**Question**	**Excellent 20-18**	**Highly satisfactory 18-16**	**Satisfactory 16-14**	**Minimal 14-12**	**Unsatisfactory 11.9-0**
3. Ensure data confidentiality and consistency 4. Program automated data processing operations.	4.1 Accurate identification of data processing operations to be automated	Question 1 (20 points)	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:
	4.2 Appropriate creation of stored procedures and scripts	Question 2 (20 points)	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:
	4.2 Appropriate creation of stored procedures and scripts	Question 3 (20 points)	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:
	3.4 Appropriate use of referential integrity constraints, triggers and transactions.	Question 4 (20 points)	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:
	4.1 Accurate identification of data processing operations to be automated	Question 5 (20 points)	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:	Comments: Grade:

SubTotalout of 100 (before deduction due to the errors)	/100
Deduction due to the spelling and grammar mistakes (0.5 for each mistake / maximum 10%)	/100
Total of the evaluation out of 100	/100
Total of the evaluation out of 40	/40

CORRECTION GRID FOR LANGUAGE

Clear Communication	Clear Communication, **most of the time**	Vague Communication	Unclear Communication
- 0	- 0,5	- 1,5	- 2
(Word Choice) Use of precise and rich vocabulary	(Word Choice) Use of precise vocabulary	(Word Choice) Use of imprecise vocabulary	(Word Choice) Use of inappropriate vocabulary
- 0	- 0,5	- 1,5	- 2
(Format/Type of work) Respect of norms	(Format/Type of work) Respect of **most of the** norms	(Format/Type of work) Non-respect of the norms	(Format/Type of work) Inappropriate in relation to the required norms
- 0	- 0,5	- 1,5	- 2
(Linguistic Code) (≤2 mistakes / page)	(Linguistic Code) (3-7 mistakes/page)	(Linguistic Code) (8-10 mistakes/ page)	(Linguistic Code) (>10 mistakes/ page)
- 0	- 0,5 - 2.5	- 2.5 - 3.5	- 4