

PROG8081 Database Management
Spring 2024 Assignment 3

#	Question	Table(s)	Marks
	Assignment 3 (A3) requirements		
(a)	Before you begin A3, complete section C (Subqueries) of <i>PROG8081 Individual Exercise 3 (ex3)</i> and <i>PROG8081 Individual Exercise 4 (ex4)</i> first.		
(b)	Use the same SQL Coding Rules specified in <i>PROG8081 Assignment 1</i> .		
(c)	Remember to recreate the SIS database before you rerun your entire A3 solution. To recreate a database, drop all active connections first (see ex4.pdf or restart SSMS).		
	Subqueries		
1.	<p>List person <i>number</i> and <i>birth date</i> for the youngest person. <i>Use a subquery to produce your result.</i></p> <pre> number birthdate ----- 2517621 1992-12-14 00:00:00.000 </pre> <p><i>Hint: Use an aggregate function in your subquery.</i></p>	Person	3
2.	<p>List the students whose home (permanent) country is USA or Canada, but not from Ontario, Canada. Include the student number, last name, first name, province and country in the result. Display the first 20 characters of last name and first name. Order your answer by last name and first name ascending. <i>Use a subquery to produce your result.</i></p> <pre> Student Number Last Name First Name Province Country ----- 1352236 COSBY GENE NS CAN 5123120 FLOYD YOLANDA CA USA 4512125 LAGERBERG VALERIE AB CAN </pre>	Person, Student	4
3.	<p>List the courses that are offered in the first semester in the ITSS program. Include the course number, credit hours, credits, and course name in the result. Order your answer by course number ascending. Use only subqueries to produce your answer. The only literal string constant you can use is "ITSS". <i>Use subqueries to produce your result.</i></p> <pre> Course Number Hours Credits Course name ----- COMM1180 45 3 Effective Technical Communication I COMP1380 45 3 Advanced User Applications INFO1570 60 4 Technology Infrastructure: Fundamentals MATH1910 45 3 Mathematics for IT I PROG1780 90 6 Programming: Fundamentals </pre> <p><i>Hint: Examples 9a to 9d of SUBQUERY.pdf to code a subquery in the SELECT list.</i></p>	Program, Course, ProgramCourse	7
4.	<p>List the names of the international students who are <i>actively</i> enrolled in any college program that leads to a post-graduate certificate. Order the result by student number. Use the literal string constant credential name "Ontario College Graduate Certificate" as part of your solution. <i>Use subqueries to produce your result. Number of rows expected: 32</i></p> <pre> studentNumber First Name Last Name ----- 1448422 SARDAR SINGH 1524560 RAJKUMAR RAYCHAUDHURI 1525872 XIAO-LAN HE ... </pre>	Person, Student, StudentProgram, Program, Credential	6

Note: You will now create DML statements (insert, update, delete). You can recreate the **SIS** tables to restart at any time. To confirm the rows that you added, updated or removed, search using the **primary key** in your **WHERE** clause. Report file should include record you added, deleted and updated.

Use the following information to answer the remaining questions:

Name	Joe Joe
Person Number	7424478
Home Street Address	Use college Street address
Home City	Guelph
Home Province	ON
Home Country	Canada
Home Postal Code	Use college PC
Local Street Address	445 GIBSON ST N
Local City	Kitchener
Local Postal Code	N2M 4T4
Main Phone	001-1111111111
Other Phone	001-2222222222
Local Phone	(226) 147-2985
College Email	xyz@conestogac.on.ca
Personal Email	abc@gmail.com
Birth Date	October 7, 2002
International student?	Yes
Account balance	\$1,130.00
Academic Status	No problems
Financial Status	Has arranged with the Registrar's office to pay the remainder of her tuition by the end of October
Program	Computer Applications Development
Program Status	Currently studying and enrolled in the first semester
Sequential Number	0 (zero)

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5.	<p>Delete the Person record for Joe Joe</p> <p>Why delete this record now? Because as soon as you add the code to INSERT the record below, it will fail if the record already exists. When you delete the record at the beginning of the script, you can run the script as many times as you need to without this error.</p> <p>Note how ON DELETE CASCADE uses <i>number</i> to delete references to Joe joe in related tables.</p> <p>Delete Course records for 'BUS9070' and 'LIBS9010';</p>	<p>Person</p> <p>Course</p>	5
6.	<p>Insert a Person record for Joe Joe.</p> <p>Show all columns for the person record you just added.</p>	Person	4

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7.	<p>Insert a Student record for Joe Joe.</p> <p>Show these columns of the student record you just added:</p> <ul style="list-style-type: none"><i>number, isInternational, academicStatusCode, financialStatusCode</i><i>sequentialNumber, balance, localStreet, localCity and localPostalCode</i>	Student	3			
8.	<p>Inspect the Program table to find the program <i>code</i> for the CAD program.</p> <p>Insert a StudentProgram record that puts Joe Joe in the CAD program. Use the Program <i>code</i> that you looked up.</p> <p>Show <i>studentNumber, programCode, semester</i> and <i>programStatusCode</i> for Joe Joe.</p>	Program StudentProgram	3			
9.	<p>Inspect the CourseOffering table and find the <i>id</i> for INFO8000 in the Winter 2024 (W24) session.</p> <p>Insert a CourseStudent record that puts Joe Joe in INFO8000 in the Winter 2024 session. Use the CourseOffering <i>id</i> that you looked up.</p> <p>Show <i>courseOfferingId, studentNumber</i> and <i>finalMark</i> for Joe Joe.</p>	CourseOffering CourseStudent	3			
10.	<p>Insert a Course record for LIBS9010. Use a column list in your INSERT statement.</p> <p>Show all columns for LIBS9010.</p> <table><tr><td>LIBS9010</td><td>Critical Thinking Skills Pensée Critique</td><td></td></tr></table> <p>Description: This course is designed to provide students with knowledge and skills to make decisions based on carefully focused and deliberately determined ways of thinking. The course will take a balanced approach to learning critical thinking skills and will include theory, analysis and experiential applications.</p> <p>Hours: 45</p> <p>Credits: 3</p> <p>Pre-Requisites:</p> <p>CoRequisites:</p>	LIBS9010	Critical Thinking Skills Pensée Critique		Course	3
LIBS9010	Critical Thinking Skills Pensée Critique					

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11.	<p>Insert a Course record for BUS9070. Do not use a column list in your INSERT statement.</p> <p>Show all columns for BUS9070.</p> <div> <div>BUS9070</div> <div> <div>Introduction To Human Relations</div> <div>Introduction aux relations humaines</div> </div> </div> <div> <p>Description: This course provides students with an introduction to human relations, focusing on self-development and interpersonal effectiveness. Students will develop various interpersonal skills by examining theories relevant to those skills. The following topics constitute the specific areas of study in the course: developing self-awareness, building and maintaining relationships, communicating with others, coping with stress, managing one's feelings, and resolving interpersonal conflicts.</p> <p>Hours: 45</p> <p>Credits: 3</p> <p>Pre-Requisites:</p> <p>CoRequisites:</p> </div>	Course	3
12.	<p>Inspect the IncidentalFee table to find the <i>id</i> for the 'Technology Enhancement Fee'.</p> <p>Update the 'Technology Enhancement Fee' to \$100.00.</p> <p>Begin a transaction.</p> <p>Update the 'Technology Enhancement Fee' to set <i>amountPerSemester</i> to \$120.00.</p> <p>Rollback the transaction.</p> <p>Show the 'Technology Enhancement Fee'. The <i>amountPerSemester</i> should revert to the original amount.</p>	IncidentalFee	3
13.	<p>Begin a transaction.</p> <p>Update the 'Technology Enhancement Fee' to set <i>amountPerSemester</i> to \$190.00.</p> <p>Commit the transaction.</p> <p>Show the 'Technology Enhancement Fee'. The <i>amountPerSemester</i> should be \$190.00.</p>	IncidentalFee	3
			50