INFO503 – SQL Lab Practical

Total marks: 50   Contributes 5% toward the final course work.

This assessment relates to the following learning outcome(s):
1. Structured Query Language.

Time allowed: 1 week

Submission: Upload on moodle before the start of the session (week 4).

Demonstrate/explain the code to the tutor in class

INSTRUCTIONS

Fix-it-all Medical Centre have requested you to create their database in ORACLE using SQL. Create a script called ***Lab Practicals <your name>.sql*** and add in the code as requested in the questions.

Complete the tasks for INFO503 Lab Practicals and **upload it on moodle** (Under Assessments) by the due date/time.

- This is an individual project. This is **NOT** a group project.
- You will be submitting one file named ***Lab Practicals <your name>.sql*** which will contain the script to perform the tasks in the questions given.
- Please add your **name** and **student id** as comment at the start of the script.

A gentle reminder – as per the academic regulations you are not allowed to submit another student's work (either by directly copying it or by typing another students work into your script) – any such act will be deemed cheating.

You may be asked to explain how you did the work and to explain the code in the following lab session. If you are not able to satisfactory explain you will receive a mark of zero for that part. You will be awarded the mark for each question answered correctly otherwise you will score 0 marks for the question.

Fix-it-all Medical Centre are medical consultants that mainly provide GP (General practitioner) services and some emergency support. The head office is located in Hamilton and the company database contains data about staff and other aspects of the company operations.

Create a file named ***Lab Practical – <your name>.sql***

1. Write the SQL script to create 5 tables with the right attributes and constraints.

STAFF table with properties as shown below:

Field Name	Data type	Constraints
StaffId	Fixed 2 characters	Primary Key
FirstName	Upto 20 characters	
LastName	Upto 20 characters	
Role	Upto 15 characters	Should allow only GP, Surgeon, Reception, GP Intern, Nurse, Senior Nurse, Nurse Intern, Marketing
Gender	Fixed 1 character	Should allow only M, F values
DateJoined	Date	Should not allow blank
DateLeft	Date	

SPECIALITY table with properties as shown below:

Field Name	Data type	Constraints
SpecId	Fixed 4 characters	Primary Key
SpecName	Upto 25 characters	
SpecNotes	Upto 100 characters	

CHARGES table with properties as shown below:

Field Name	Data type	Constraints
ChrgCode	Fixed 7 characters	Primary Key
ChrgDescription	Upto 80 characters	Should not allow blank
Duration	Number(2)	Should not allow blank should not be over 60
HourlyRate	Number(3)	Cannot be over 399

STAFF_SPECIALITY table with properties as shown below:

Field Name	Data type	Constraints
StaffId	Fixed 2 characters	Primary Key, Foreign Key
SpecId	Fixed 4 characters	Primary Key, Foreign Key
DateQualified	Date	Should not allow blank
ValidTillDate	Date	
Details	Upto 100 characters	

CONSULTATION table with properties shown below:

Field Name	Data type	Constraints
ChrgCode	Fixed 7 characters	Primary Key, Foreign Key
StaffId	Fixed 2 characters	Primary Key, Foreign Key
DateConsulted	Date	Should not allow blank
StartTime	Number(4,2)	
PatientNo	Fixed 7 characters	

2. Write the SQL script to add rows in the table as follows.

STAFF table with the following values:

Id	First Name	Last Name	Role	Gender	Date Joined	Date Left
1	Homer	Simpson	GP	M	21-Apr-2015	
2	Marge	Simpson	Reception	F	27-Apr-2015	
3	Apu	Nahasapeemapetilon	Surgeon	M	14-May-2015	
4	Kent	Brockman	Marketing	M	14-May-2015	
5	Patty	Bouvier	Reception	F	23-Mar-2016	
6	Selma	Bouvier	Senior Nurse	F	27-Mar-2016	
7	Ned	Flanders	Nurse	M	18-Oct-2016	
8	Ralph	Wiggum	Marketing	M	23-Jan-2017	24-Jun-2017
9	Montgomery	Burns	Marketing	M	3-Feb-2017	
10	Lisa	Simpson	GP	F	4-Dec-2017	17-Aug-2018
11	Disco	Stu	Nurse Intern	M	27-Mar-2018	
12	<your name>	<your name>	Nurse Intern	<gender>	<today>	

SPECIALITY table with the following values:

Spec Id	Spec Name	Spec Notes
0123	General Consultancy	Includes all areas as a GP
0124	Emergency Care	Can perform minor surgeries
0125	Vaccination	Generally taken care of by a nurse
0126	Tests	Collect samples for testing as required by GP or Surgeon
0127	Repeat Prescription	Generally taken care of by a nurse

CHARGES table with the following values:

Chrg Code	Chrg Description	Duration (in mins)	Rate
0081	General GP consultation for registered patients	20	$180
0082	General GP consultation for casual patients	20	$360
0085	Emergency Medical Care for registered or casual patients	30	$0
0086	Vaccination or Test collection for registered patients	15	$0
0088	Vaccination or Test collection for casual patients	15	$40
0089	Repeat Prescription	5	$5

CONSULTATION table with the following values:

Chrg Code	Staff Id	Date Consulted	Start Time	Patient No
0082	1	1-Sep-2018	8.30	A012345
0085	3	4-Sep-2018	9.45	N333333
0085	7	6-Sep-2018	9.45	I445566
0086	7	6-Sep-2018	10.30	K222333
0089	12	7-Sep-2018	10.45	A343434

STAFF_SPECIALITY table with the following values:

Staff Id	Spec Id	Date Qualified	Valid Till Date	Details
1	0123	24-Apr-2014	23-Apr-2024	General Practitioner license renewed
1	0124	14-May-2016	14-Nov-2021	Certified only to assist a surgery
3	0124	01-Aug-2015	31-Jul-2020	Special certification in emergency care
6	0125	25-Jul-2017	24-Jul-2019	Renewed license
7	0124	01-Aug-2015	31-Jul-2020	Can assist a surgeon in emergency care
7	0126	17-Jul-2015	16-Jul-2020	Renewed license
11	0127	01-Aug-2017	31-Aug-2018	Intern under training
12	0127	03-Aug-2017	02-Sep-2018	Intern under training

3. Write a query to show the names of all the tables that are in the database.

4. Write a query (or queries) to show the structure of each table in the database.

5. Write a query (or queries) to show the contents of each table in the database.

6. Write a query to show the *Staff Id, Staff Full Name, Date Joined,* and *Date Left* values of all the staff in the STAFF table. List in ascending order of *First Name*

****

Lab Practical - Tentative Marking Schedule

Question	Student checklist	Marks

1	Create tables
	    Syntax for table right (1 mark each table)
	    All constraints included (1 mark for each)
		25

2	Insert rows into the tables (2 marks for each table)	10
3	tables in database	2
4	structure each table	3
5	contents each table	3
6	projection	4
	Script named correctly Comments used throughout Good scripting technique used	3
TOTAL Marks : 50 marks	Contributes 5% towards the course	