**Te Hoe Rorohiko**

**Department of Business and Digital Technologies**

Bachelor of Information and Communication Technologies

Database Administration

BCDE214

Assignment Two

Portfolio

Semester Two, 2023

Due date: 10 November 2023 with intermediate dates to be advised

Time: 5.00pm

Instructions:

Hand in a zipped portfolio of scripts, screen shots and other documents as requested during the semester.

**TOTAL MARKS: 100**

Student Name/ID

*Ara and its faculty members reserve the right to use electronic means to detect and help prevent plagiarism. Students agree that when submitting this assignment, it may be subject to submission for textual similarity review to Turnitin.com.*

Submissions received late will be subject to a penalty of 10% of the student’s mark per working day.

This assignment is worth **50%** of the total marks for this course.

You must achieve at least **50%** in this assessment to pass the course

This paper has ***two*** (2) pages including the cover sheet.

**INSTRUCTIONS**

There will be time set aside during normal class time during which students may be asked to demonstrate some aspects of their assignment.

**The Scenario**

You will be modifying and administering a database that will be the back-end for running a fictional vaccination program. This is to keep track of all appointments people make, and whether they keep them or not. Your task is to make sure the system is secure, backed up properly, and provide enhancements as required.

**System Description**

* People will make appointments to be vaccinated through some sort of interface. Multiple vaccinations are required. The interface may let them make multiple bookings at once, and for these bookings to be at different places. It is not your job to create the interface, but you are expected to create stored procedures that the interface may use.
* People will wish to change their appointments. This has currently not been tested.
* When a person keeps their appointment, who vaccinates them, and which specific vial of vaccine they received needs to be recorded.
* Vaccines are administered at sites, during specific times. A site may have more than one slot where people can receive their vaccine.

**Files Provided**

* A back up file of a development version of the database (VaccinationsDev2021.bak) has been provided that contains the current database, along with four weeks of dummy data in it.
* There are also some stored procedures in the database. As the developer/administrator it will be your job to understand them, and if necessary, modify and/or test them. Based on those various stored procedures you will create and test some new ones.
* SQL files that were used to create the stored procedures.
* Data files that were loaded using the provided stored procedures. There is also some files for generating some of the dummy data.

**The Tasks**

During the next few months you will be asked to perform various DB Admin tasks. These tasks will be provided as appendices to this document. By the due date you will have a portfolio of scripts and other proof of tasks.

These tasks will include:

* Designing, implementing and testing design changes, queries, views, triggers and stored procedures
* You also need to create and test various stored procedures in the database. As the developer/administrator it will be your job to create, test and maintain them, and if necessary, modify and test them.
* Designing, implementing and demonstrating DBA tasks including and not limited to security, role management and indexing
* Using non-relational databases and methodologies