**Te Hoe Rorohiko**

**Department of Enterprise and Digital Innovation**

Bachelor of Information and Communication Technologies

Database Administration

BCDE214

Assignment Two

Portfolio

Semester Two, 2020

Due date: 20 November 2020 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 creating, modifying and administering a database for running a fictional stock sales yards. A stock sales yard auctions off animals on behalf of clients. There are various ways that these sales run. You will be provided with a database with some data. During this semester you will maintain and enhance this database.

**System Description**

* A sales yard sells animals by auction. There are multiple auctions held in a month
* Animals to be sold are supplied by farmers. The farmers may be individuals but are more likely to be a company. The seller must have an agent, who will work for one of the stock agencies in the area.
* Animals are sold in lots. There is usually more than one animal in a lot. The animals in each lot will also be of the same breed, sex and age.
  + Cows are sold per kg live weight per animal. A lot has a total weight of all the animals in it. A part of the overall system that is not currently modelled is that cows can be individually tracked.
  + Sheep are sold per head, and are not weighed.
* A lot is auctioned by an auctioneer, who will be employed by the stock agency of the seller of the lot. The lot may have a reserve price on it. If the reserve is not reached, the lot is passed in.
* The lot is purchased by a buyer. Buyers must register and be given a number at the start of each auction, or they cannot bid. Some, but not all, buyers retain the same buyer number from auction to auction. Some sellers will also be buyers.

A script (StockAuctionsCreateWithData.sql) has been provided that creates the current database, and has two weeks of sales data in it.

**The Tasks**

During the next few months you will be asked to perform 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 views, triggers and stored procedures
  + Designing, implementing and demonstrating DBA tasks including and not limited to security, role management and indexing
  + Designing, implementing and testing stock tracking
  + Using non-relational databases and methodologies