**Te Hoe Hōkai Pakihi**

Department of Business and Digital Technologies

Bachelor of Information and Communication Technologies

Graduate Diploma in Information and Communication Technologies

Database Design

BCDE103

Assignment Two

Design, Scripting, Testing, Security, Backup and Restore

Semester Two 2021

Due date: Various (4 parts in total)

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.

This paper has ***Five*** (5) pages including the cover sheet.

**Instructions**

There will be time set aside during normal classes when students may be asked to demonstrate some aspects of their assignment, receive feedback and have aspects of work marked. The scheduled tutorial times will also be used to provide further feedback and complete any outstanding marking.

**The Scenario**

Alister Lance, owner of Up-Market Hotel has hired you to:

* implement
* update
* maintain

his database management system for his business that:

* records bookings for accommodation
* retains all data for historical analysis

He is aiming at the niche luxury accommodation market. He has one hotel. He may move to on-line bookings at some stage in the future. It has been decided for the purposes of this part of the project that you will concentrate on

* tracking bookings
* maintaining guest information
* maintaining room information

**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 performed by following the requirements detailed in each of the appendices.

These tasks will be:

* + Creating the database from the supplied ERD
  + Creating and loading provided test data via script
  + Writing scripts to validate created tables and insertion of test data
  + Writing Scripts to query the data
  + Creating Views and Querying them to provide insights
  + Creating Backups and restoring from backups
  + Setting up security policies
  + Writing programs to query and analyse data

The tasks will be provided for you as the owner decides they become available. Note there may be a mixture of tasks in each appendix. You may be provided with tasks that you cannot do until later in the semester, but you will be able to do them all by the end of the semester.

At this point in time you should set up a folder that will contain your outcomes. You should make sure that you clearly name all files and scripts.

**Portfolio Final Hand-In and Marking Dates**

Appendix A Monday 20th September

Appendix B Monday 18 October

Appendix C Monday 8 November

Appendix D Friday 19 November

**BCDE103 Database Design – *To be marked by Monday 20th September***

**Assignment Two – Portfolio**

**Appendix A**

**You are to:**

* Create the provided database called GuestHouses*IoginName*.

A Database Diagram has been created for you.

**Database Creation**

* Create database schema based on the provided ERD.

**Data Insertion**

* Write scripts to bulk insert data into the respective tables.
* We will provide sample data that will match the attributes and data types in the respective tables. Do this for all the tables. Some deliberate errors may be present and you have to fix them.

**Data Testing**

* Test that the data has been inserted accurately.

For example, valid Primary and Foreign key values, constraints, relationships etc.

Verify that the created database matches the design level ERD.

**Queries**

* Create queries that will report:
  + - The total number of bookings
    - The total number of guests booked
    - List of guests by room type

Make sure that you name all scripts *sensibly and logically* – you will end up with a lot of them.

**Marks for this assessment (Appendix A)**

**(20 marks)**

Data Base Creation (10 marks)

Data Insertion (5 marks)

Data Testing (2 marks)

Queries (3 marks)

**List of Data Files for Bulk Insert**

1. booking.csv
2. calendar.csv
3. guest.csv
4. rate.csv
5. room.csv
6. room\_type.csv
7. extra.csv

