TDS3551 – Data Management

Session 2020

Name: Click or tap here to enter text. ID: Click or tap here to enter text.

|  |
| --- |
| **LAB 10** |

This laboratory session is based on MongoDB operations, covered previously in Lab 9.

Please complete the lab exercises and show your outputs. You can take a screenshot of your terminal as your solution, or provide a list of commands or your script. Show your final outputs (screenshots).

Marks are allocated based on the rubrics below. Each question is allocated **1 mark**, total marks will be normalized to **8 marks**. Please upload this document to Google Classroom. **Late submissions will not be accepted and graded**. Please take note of the deadline and the deadline follows **Google Classroom’s system’s time**, not your PC’s time. **Do submit early** in and don’t take the risk of being cut off from the submission.

Rubrics:

|  |  |  |
| --- | --- | --- |
| No evidence  0 mark | Average  0.5 mark | Good  1 mark |
| No evidence of solution or wrong solution regardless of outputs shown. | Partially correct or incomplete solution regardless of outputs shown; or correct solution but wrong or no outputs shown. | Correct and complete solution, with all outputs shown. |

|  |
| --- |
| **EXERCISE** |

Complete the following sections and insert your answers into the spaces – all questions will refer to commands performed via CLI and **not** with Compass GUI. Please include your scripts and screenshots of your output.

1. Create a collection, named product in the existing database. Write down the syntax used for the command line. The following are three documents to be added into product collection. Write down the syntax used for the command line.

Document 1 consists of the following fields:

ProdID : U101

Name : unifiLite 8Mbps

Price : 89.00

Free : Wifi Modem, TM Wifi ID

Quota : Unlimited

Contract : 24 months

Document 2 consists of the following fields:

ProdID : U102

Name : unifi 100Mbps

Price : 129.00

Free : Set-Top-Box, Wifi Modem

Quota : 60GB

Contract : 24 months

Document 3 consists of the following fields:

ProdID : U103

Name : unifi 300Mbps

Price : 199.00

Free : Set-Top-Box, Wifi Modem, Cordless Phone

Quota : Unlimited

Contract : 24 months

Click here to enter text.

1. Using the find() function, what are the mongoDB statements that satisfy the following queries:
   1. Find product(s)that comes with a free cordless phone.

Click here to enter text.

* 1. Find product(s) that comes with unlimited quota.

Click here to enter text.

1. Count the number of individual free items given for each product.

Click here to enter text.

1. Calculate and display the min, max and average for product price.

Click here to enter text.

1. Add a new field to all products called “SST” with the value at 6% for each.

Click here to enter text.

1. Calculate and display the total price for each product (incl. SST).

Click here to enter text.