Application of NoSQL Cassandra in Big Data Analytics Assessment

Instructions

- Your laptop should be in Airplane mode during the assessment.
- Put away your mobile phone. You will not use your phone for anything during the assessment.
- Copy and paste **ALL YOUR CQL COMMANDS** and **OUTPUT SCREENSHOTS** onto a Word document.
- Save the document as **CQL ASSESSMENT_YOUR NAME** in Word format.
- Number your work clearly.
- Work independently and quietly.
- Use any values on Product Cost.
- Use any relevant product descriptions/names that conform to the categories and sub-categories.
- The entire assessment carries **50** marks.

1. Create a keyspace for a retail business called YOURNAME_RetailDB_STET. [5]
2. Create a table called Products that keeps record of all products sold by the business as follows:
   - Product Code as a uuid.
   - Product Description.
   - Product Category_Subcategory - Category and Sub-Category as a map collection.

- Product Cost.
- Product Price - Normal Price and Promotional Price as a list collection. [5]

3. Create a batch to introduce records of any 10 products in the Products table considering the following:
   - Product Categories:
     - Household (3 products fall under this category),
     - Agricultural (3 products fall under this category),
     - Clothing (4 products fall under this category).
   - Product Sub-Categories:
     - Electronics.
     - Garden.
     - Babywear.

   - Product Prices:
     - Household (Normal - R3500, Promo - R3200), (Normal - R4100, Promo - R3800), (Normal - R2500, Promo - R2200).
     - Agricultural (Normal - R500, Promo – R350), (Normal - R680, Promo – R590), (Normal - R700, Promo – R610).
     - Clothing (Normal - R1700, Promo – R1500), (Normal - R900, Promo – R850), (Normal - R1200, Promo – R1100), (Normal - R500, Promo - R450). [15]

4. Retrieve and display the total number of products in the table. [2]

5. Create indexes on the following columns of the Products table:
   - Product Category_Subcategory – create an index on the Entries only. [2]
   - Product Price. [2]

6. Retrieve and display the following records from the Products table:
   - All products falling under the Garden sub-category. [3]
   - All products falling under the Clothing category. [3]

7. The Normal and Promo prices of the items in the Clothing category have increased by 8%. Write CQL statement(s) to make the necessary adjustments to the Products table to reflect this change. [8]

8. Given a product price (any price), retrieve and display the record(s) of the product(s). [5]