

# MSCDA613 GROUP ASSIGNMENT DUE DATE- 20 MARCH 2020

## 150 MARKS

### Instructions

Use SSIS and SQL Server to do the task.

You are free to use python scripts if you feel they are needed somewhere.

Take screenshots of every step that you do to answer the questions.

Where you have used a query, write it down.

Presentations using your BI platform will be scheduled on a later date to defend your project where every group member is required to present and additional marks will be awarded individually.

### Task

You are a freelance BI Developer who has just got a lucrative contract to develop a BI platform remotely for a certain company in DRC. The company uses one transactional system which logs its transactions into MySQL database called retail\_db. The company database administrator has extracted a database dump for retail\_db which you will use for the project.

1. **Create a database namely retail\_db in SQL Server [2 MARKS]**
2. **Create the required tables and show the queries that you have used [12 MARKS]**
3. **Load the data into the tables you just created [50 MARKS]**
4. **Write queries to show the total number of records in each table and take screenshots together with the results. [6 MARKS]**
5. **Create another database called MSCDA\_DW which will be your data warehouse [2 MARKS]**
6. **During your logical data modelling phase, model a star schema which will be part of your data warehouse showing the source tables and suggested names for your facts and dimensions [5 MARKS]**
7. **Create the tables for the star schema in MSCDA\_DW and draw the database diagram [15 MARKS]**
8. **Develop the ETL jobs that will populate data into the model. [20 MARKS]**
9. **Think of any 2 BI questions that can be answered by your star schema. After that, answer the questions using a query. Please note that your queries should have at least one join. [10 MARKS]**
10. **Design a very beautiful dashboard using QlikSense and try to capture all the possible KPIs that the company might need to know. [25 MARKS]**