**Part 1: SQL Database and Analysis**

**1a. Create the tables with the schemas given below. (20pt)**

You are required to create the following tables:

- Clients Table:

- client\_id (Primary Key)

- client\_name (NOT NULL)

- contact\_email

- phone\_number

- address

- Products Table:

- product\_id (Primary Key)

- product\_name (NOT NULL)

- unit\_price

- Description

- Transactions Table:

- transaction\_id (Primary Key)

- transaction\_date

- client\_id (Foreign Key referencing Clients table)

- product\_id (Foreign Key referencing Products table)

- salesrep\_id (Foreign Key referencing SalesRep table)

- quantity (NOT NULL)

- total\_price

- type

- Description

- SalesRep Table:

- salesrep\_id (Primary Key)

- salesrep\_firstname (NOT NULL)

- salesrep\_lastname

- contact\_email

- phone\_number

- Address

**1.b: Insert Data into Tables(20pts)**

There are several issues in the raw data provided to you. Your task is to identify and fix these

errors.

1. Insert the data provided in the table\_data.txt file into your database tables using the

“Insert”queries.

2. During the insertion process, errors will occur due to issues in the raw data (e.g.,

missing values, invalid data types, or duplicate primary keys).

4. After cleaning the data, reattempt the insertion process until all data is successfully

loaded into the database.

**1c. Perform Analysis with SQL Queries: (60pts)**

Using the cleaned data, you will need to find the following information using SQL Queries:

1. Retrieve the total number of clients in the database.

2. Find the average unit price of products.

3. List the names of the products which have been returned.

4. Find the number of transactions that occurred on each date, and order the results by the

number of transactions in descending order.

5. List all sales representatives along with the number of products they handled.

6. Find the sales representative who has generated the highest total revenue