

# Relational Database Report



By Timilehin Lamoriu

July 22, 2022

# Background

- Datatech Con wants a database table called DTcommerce that will load the datasets into their respective tables using SQL query.

# Goal

- Make three database tables to contain information about customers, products, and sales.
- Establish a database using the relational database management system.
- Use SQL query to load data in their respective tables.

```
1  -- using insert function to create a table--
2  create table customer(
3      customer_id varchar,
4      customer_name varchar,
5      segment varchar,
6      age int,
7      country varchar,
8      city varchar,
9      state varchar,
10     postal_code int,
11     region varchar
12 );
13
14
15 select *
16 from customer
17
18 -- using copy command function to load customer table--
19 copy customer
20 from 'C:\Users\timil\Downloads\Customer.csv' delimiter ',' csv header;
21
22
23 Copy customer
24 from 'C:\Users\timil\Downloads\Customer.csv'
```

Data Output Explain Messages Notifications

|   | customer_id<br>character varying | customer_name<br>character varying | segment<br>character varying | age<br>integer | country<br>character varying | city<br>character varying | state<br>character varying | postal_code<br>integer | region<br>character varying |
|---|----------------------------------|------------------------------------|------------------------------|----------------|------------------------------|---------------------------|----------------------------|------------------------|-----------------------------|
| 1 | CG-12520                         | Claire Gute                        | Consumer                     | 67             | United States                | Henderson                 | Kentucky                   | 42420                  | South                       |
| 2 | DV-13045                         | Darrin Van Huff                    | Corporate                    | 31             | United States                | Los Angeles               | California                 | 90036                  | West                        |
| 3 | SO-20335                         | Sean O'Donnell                     | Consumer                     | 65             | United States                | Fort Lauderdale           | Florida                    | 33311                  | South                       |
| 4 | BH-11710                         | Brosina Hoffman                    | Consumer                     | 20             | United States                | Los Angeles               | California                 | 90032                  | West                        |
| 5 | AA-10480                         | Andrew Allen                       | Consumer                     | 50             | United States                | Concord                   | North Carolina             | 28027                  | South                       |
| 6 | IM-15070                         | Irene Maddox                       | Consumer                     | 66             | United States                | Seattle                   | Washington                 | 98103                  | West                        |
| 7 | HP-14815                         | Harold Pawlan                      | Home Office                  | 20             | United States                | Fort Worth                | Texas                      | 76106                  | Central                     |

```

1  -- using insert function to create a table--
2  create table product(
3      Product_ID varchar,
4      Category varchar,
5      Sub_Category varchar,
6      Product_name varchar
7  );
8
9  --table validation
10 select *
11 from product
12
13 --code error verify--
14 SET client_encoding = 'ISO_8859_5'
15
16 --using copy command to load product table
17 copy product
18 from 'C:\Users\timil\Downloads\Product.csv' delimiter ',' csv header;
19
20 copy product
21 from 'C:\Users\timil\Downloads\Product.csv'
22

```

|   | product_id<br>character varying | category<br>character varying | sub_category<br>character varying | product_name<br>character varying                               |
|---|---------------------------------|-------------------------------|-----------------------------------|---|
| 1 | FUR-BO-10001798                 | Furniture                     | Bookcases                         | Bush Somerset Collection Bookcase                               |
| 2 | FUR-CH-10000454                 | Furniture                     | Chairs                            | Hon Deluxe Fabric Upholstered Stacking Chairs Rounded Back      |
| 3 | OFF-LA-10000240                 | Office Supplies               | Labels                            | Self-Adhesive Address Labels for Typewriters by Universal       |
| 4 | FUR-TA-10000577                 | Furniture                     | Tables                            | Bretford CR4500 Series Slim Rectangular Table                   |
| 5 | OFF-ST-10000760                 | Office Supplies               | Storage                           | Eldon Fold N Roll Cart System                                   |
| 6 | FUR-FU-10001487                 | Furniture                     | Furnishings                       | Eldon Expressions Wood and Plastic Desk Accessories Cherry Wood |
| 7 | OFF-AR-10002833                 | Office Supplies               | Art                               | Newell 322  |

|   | order_line<br>integer | order_id<br>character varying | order_date<br>date | ship_date<br>date | ship_mode<br>character varying | customer_id<br>character varying | product_id<br>character varying | sales<br>double precision | quantity<br>integer | discount<br>double precision | profit<br>double precision |
|---|-----------------------|-------------------------------|--------------------|-------------------|--------------------------------|----------------------------------|---------------------------------|---------------------------|---------------------|------------------------------|----------------------------|
| 1 | 1                     | CA-2016-152156                | 2016-11-08         | 2016-11-11        | Second Class                   | CG-12520                         | FUR-BO-10001798                 | 261.96                    | 2                   | 0                            | 41.9136                    |
| 2 | 2                     | CA-2016-152156                | 2016-11-08         | 2016-11-11        | Second Class                   | CG-12520                         | FUR-CH-10000454                 | 731.94                    | 3                   | 0                            | 219.582                    |
| 3 | 3                     | CA-2016-138688                | 2016-06-12         | 2016-06-16        | Second Class                   | DV-13045                         | OFF-LA-10000240                 | 14.62                     | 2                   | 0                            | 6.8714                     |
| 4 | 4                     | US-2015-108966                | 2015-10-11         | 2015-10-18        | Standard Class                 | SO-20335                         | FUR-TA-10000577                 | 957.5775                  | 5                   | 0.45                         | -383.031                   |
| 5 | 5                     | US-2015-108966                | 2015-10-11         | 2015-10-18        | Standard Class                 | SO-20335                         | OFF-ST-10000760                 | 22.368                    | 2                   | 0.2                          | 2.5164                     |
| 6 | 6                     | CA-2014-115812                | 2014-06-09         | 2014-06-14        | Standard Class                 | BH-11710                         | FUR-FU-10001487                 | 48.86                     | 7                   | 0                            | 14.1694                    |
| 7 | 7                     | CA-2014-115812                | 2014-06-09         | 2014-06-14        | Standard Class                 | BH-11710                         | OFF-AR-10002833                 | 7.28                      | 4                   | 0                            | 1.9656                     |
| 8 | 8                     | CA-2014-115812                | 2014-06-09         | 2014-06-14        | Standard Class                 | BH-11710                         | OFF-FU-10000837                 | 207.166                   | 1                   | 0.3                          | 60.716                     |

# Methodology

I utilized PostgreSQL to create the database

## SQL Query

- The SQL query was used to validate all the three tables, they were all done in a similar way but they all didn't use the same data types. Some data would not load properly if the right data types were not used, and we also had to make sure that the code is written in a structured way for easy debug and to avoid errors.