



Ministry of Communication and Information Technology
Information Technology Institute
Intensive Code Camp



Project Title:
Cosmetics Sales Analytics

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Abstract

In A Competitive Cosmetics Market, Understanding Customer Behavior and Product Performance Is Key to Driving Growth. This Project Delivers a Powerful Power Bi Dashboard That Turns Raw Sales Data into Actionable Insights. Through Dynamic Visuals, Trend Analysis, Branch-Level Performance Tracking, The Solution Empowers Business Users to Make Faster, Smarter Decisions. It Lays the Foundation for an Insight-Driven Culture and Sets the Stage for Future Integration with Ai-Driven Recommendations and Predictive Analytics.

INTRODUCTION

Project Description

This project presents a complete data-driven solution for a cosmetics business, combining a business intelligence dashboard and a customer-facing e-commerce website. The Power BI dashboard provides interactive analysis on sales, customer behavior, and product performance. The website serves as a user-friendly platform for showcasing cosmetics products, managing customer accounts, and enabling online purchases. Together, they provide a seamless environment for both internal stakeholders and end-users.

Business Objectives and Success Criteria

Objectives:

Provide dynamic analytics on product, branch, and customer performance.

Enable online visibility and sales of cosmetics products.

Integrate marketing insights with user behavior data from the website.

Offer stakeholders a clear and visual summary of KPIs.

Success Criteria:

Accurate, real-time Power BI dashboards.

Smooth integration between website and data model Positive feedback from both internal users and customers.

Stakeholders

| Stakeholder | Major Value | Attitudes | Major Interests | Constraints |
|-------------------------------------|---|--|---|---|
| Business Owners / Executives | Informed decision-making through reliable sales and customer insights | Supportive of analytics but expect quick ROI | Revenue growth, customer satisfaction, product visibility | Budget limitations, quick deployment |
| Sales & Marketing Team | Actionable insights to improve campaigns and boost conversions | Enthusiastic, data-hungry | Customer segmentation, high-performing products, trends | Require training, may resist dashboard UX changes |
| Web Development Team | Platform scalability, performance, and integration | Collaborative and technically oriented | Clean code, responsive UI, backend reliability | Timeline and feature creep |
| BI / Data Team | Data quality, transformation accuracy, and model scalability | Analytical and process-driven | Clean data model, refresh automation, custom DAX logic | Data inconsistencies, integration delays |
| Customers (Website Users) | Easy browsing, personalized shopping experience | Highly sensitive to UX and performance | Product search, reviews, smooth checkout | Limited tech awareness, short attention span |

Vision

“To empower decision-makers and enhance customer engagement through data-driven insights and a seamless digital experience.”

This project aims to provide a unified solution for cosmetics businesses through two core components:

- An interactive Power BI dashboard that helps internal stakeholders make smarter decisions by analyzing sales, customer behavior, and product performance.
- A user-friendly cosmetics website that showcases products, supports e-commerce functionality, and reflects brand identity.

The long-term vision is to integrate advanced analytics, customer personalization, and marketing automation into both platforms. This will enable the business to grow competitively in both physical and digital markets while building deeper customer loyalty and operational excellence.

Scope

Initial Release

- Deployment of a Power BI dashboard including:
 - Sales overview by branch, category, and date.
 - Customer segmentation and behavioral trends.
 - Product performance and inventory indicators.
- Launch of a responsive cosmetics e-commerce website

Assumptions and Dependencies

Assumptions

- Sales, customer, and product data is correct and consistent in all branches.
- Users like the sales and marketing teams can use the Power BI dashboard easily with little or no training.
- The team knows how to use tools like Power BI, SQL, and web development software.
- Customers can easily use the website to browse and shop for products.
- The internet will be available when needed to refresh data and run the website and dashboard.

Dependencies

- Data Sources: The dashboard needs clean and up-to-date data from Excel files, databases, or online sources.
- Login System: The website needs a working and secure login system so users can access their accounts safely.
- Power BI Service: The dashboard depends on Microsoft Power BI services to refresh data and share reports.
- User Participation: The project depends on users (staff and managers) using the dashboard and giving feedback.
- Browser Support: The website should work properly on popular browsers like Chrome, Edge, Safari, and Firefox.

Risks

- **Data Quality and Consistency:** Incomplete or inconsistent sales, customer, or product data could affect dashboard accuracy and insights.
- **Integration Issues:** Ensuring seamless data flow between the website, the backend database, and Power BI may present technical challenges.
- **User Adoption:** Stakeholders may be slow to adopt the dashboard or may require training to fully utilize its features.
- **Website Security:** Handling customer data and transactions online introduces cybersecurity risks that must be mitigated.
- **Timeline Constraints:** Aligning dashboard delivery with website development milestones may lead to delays if unforeseen challenges arise.
- **Market Competition:** Many cosmetics websites already exist. Our platform must differentiate through branding, UX design, and data-powered insights.

Resources

- **Team Members:**
 - o The team consists of five individuals:
 - Two members specialize in Power BI development and data modeling.
 - Two full-stack web developers experienced building responsive websites.
 - One data analyst is responsible for data cleaning, transformation, and KPI definition.
- **Hardware Resources:**
 - Personal laptops and development machines are used for dashboard design and web development.
 - External storage for maintaining project data backups.
 - Software Resources
 - Microsoft Power BI Desktop for dashboard creation and report publishing.
 - Excel and Power Query for data preparation and cleaning.
 - SQL Server / MySQL for database management and querying.
 - Visual Studio Code for frontend and backend web development.
 - HTML, CSS, JavaScript for frontend design.
 - Node.js for backend logic (based on the stack used).
 - GitHub for version control and collaboration.

Project Management Plan

- **Market Analysis**

We conducted a detailed market analysis of existing cosmetics e-commerce platforms and business intelligence dashboards. Our study focused on identifying the strengths and weaknesses of competitors, understanding user experience trends, and identifying gaps in dashboard reporting within the cosmetics industry. This helped us design a solution with better product visibility, customer interaction, and data insights.

Project Plan and Full Features List

Based on the insights gained from the market study, we outlined the core features for both the website and the dashboard. We created a timeline and broke down development tasks for each component to ensure balanced progress. The project was divided into two streams:

- Data analytics dashboard and reporting system.
- Website design and development

Time estimates were calculated for UI/UX design, database modeling, DAX measure creation, visualizations, and backend integration.

Data Collection and Cleaning:

Our first challenge was consolidating and cleaning the data. The raw data was stored across multiple Excel files, with inconsistencies in naming conventions, date formatting, and missing values.

To supplement incomplete records and enrich the dataset, we also generated additional synthetic data using Python scripts. In some cases, we used AI tools to simulate realistic values particularly where domain logic allowed for intelligent estimation. This ensured a completer and more analyzable dataset for subsequent steps in the analysis process.

Using Power Query and Excel, we standardized data across the following dimensions:

- Product Categories and Subcategories
- Branch Names and Locations
- Customer Segments
- Order Status and Payment Methods

Data Modeling:

- **Entity Relationship Diagram (ERD):**

The Entity Relationship Diagram (ERD) was created to visualize the core structure of our cosmetics database. It maps the relationships between key entities such as Customer, Product, SalesOrder, Category, Branch, and PaymentMethod. This diagram helped the team understand how data flows between different components of the system and ensured that all necessary relationships were accurately captured during development. The ERD served as a blueprint for building the database and played a critical role in both data integrity and reporting consistency.

- **Data Mapping**

Data mapping aligned fields from source files (e.g., sales, products, customers) to the correct columns in the SQL Server database. It ensured consistent data types, naming, and format across the system. Mapping also standardized values like payment methods and order statuses, and guided SSIS in transforming and loading data accurately for reporting in Power BI and SSRS.

- **Database Schema**

The database schema was designed using a star schema model, with SalesOrder acting as the central fact table and surrounding dimension tables like Customer, Product, Branch, and Category. This structure was chosen to optimize performance for analytical queries in Power BI and SSRS. Primary and foreign keys were clearly defined to maintain referential integrity, and naming conventions were standardized for clarity and ease of use. The schema design ensured that data could be easily joined, filtered, and aggregated for reporting and dashboarding purposes.

SQL Server Integration Services (SSIS)

SSIS was used to build automated ETL (Extract, Transform, Load) processes to move raw data from Excel files and other sources into the SQL Server database. Custom packages were developed to handle data cleansing, type conversions, and transformation tasks such as merging, duplication, and categorization. These packages ensured that only clean and validated data reached the reporting layer. The use of SSIS helped maintain data quality while significantly reducing manual workload and processing time.

SQL Validation and Stored Procedures

SQL Server was used to ensure clean and reliable data through schema-level constraints like NOT NULL, UNIQUE, and CHECK, along with custom scripts to identify duplicates, missing values, and inconsistencies. Additional validations were done using aggregation queries to verify totals, compare revenue across branches, and detect abnormal values. Stored procedures were developed to automate tasks such as inserting data, calculating metrics, and filtering records by date or branch. These procedures improved performance, supported dynamic queries, and were integrated with SSIS to streamline the ETL process.

SQL Server Reporting Services (SSRS)

SSRS was used to create paginated reports for internal operational needs. These reports included monthly sales summaries, customer transaction histories, and inventory snapshots. SSRS allows users to generate PDF and Excel reports that could be printed or shared with other departments. The reporting system also supported parameterized filters for date ranges and branches, making it highly flexible and user-friendly. SSRS complemented the Power BI dashboards by providing more detailed, print-ready outputs tailored to management and finance teams.

Dashboard Development

After preparing the data, we created a Snowflake schema model in Power BI. Using DAX, we defined key KPIs such as:

- Total Revenue
- Repeat Purchase Rate
- Branch Performance
- Total Freight

Interactive visuals and filters were added for better usability and analysis depth.

Dashboards:

- Overview Dashboard:

Purpose: Provide a general summary of the business's overall performance and key metrics.

- KPI Cards:
 - ✓ No. Orders.
 - ✓ No. Customers
 - ✓ No. salesperson.
 - ✓ Total Due.
 - ✓ Total Quantity.
 - ✓ No. Branches.

- Sales Dashboard:

Purpose: Monitor total sales performance over time and identify revenue trends.

- Charts:

Pie Chart: Total Subtotal by Category Name.

Line and Stacked Column Chart: Total Subtotal, Total Tax, Total freight by year and Quarter.

Line Chart: Total Due by Month and Year.

- KPI Cards:
 - ✓ No. Orders.
 - ✓ Total Due.
 - ✓ Total Tax.
 - ✓ Total Freight.
 - ✓ Total Subtotal.
- **Orders Dashboard:**

Purpose: Analyze customer ordering behavior and identify patterns related to order volume and cancellations.

 - Charts:
 - Stacked Column Chart: No. Orders by Payment Type.
 - Scatter Chart: Total Due and Total Quantity by Location.
 - Line Chart: No. Canceled orders by Month and Year.
 - KPI Cards:
 - ✓ No. Orders.
 - ✓ Total Quantity.
 - ✓ Avg Order value.
 - ✓ Canceled Orders.
 - ✓ % Canceled Orders.
- **Category Dashboard**

Purpose: Compare sales performance across product categories and assess the category.

 - Charts:
 - Donut Chart (Activity Gauge): Total Subtotal by Category Name.
 - Stacked Bar Chart: No. Subcategories by Category Name.
 - Clustered Column Chart: No. Sold Product by Category Name.
 - KPI Charts:
 - ✓ Total Due.
 - ✓ No. Orders.
 - ✓ No. Subcategories.
- **Make-up Dashboard**

Purpose: Evaluate sales and performance trends specific to makeup products.

 - Charts:
 - Stacked Bar Chart: Makeup Orders by Gender.
 - Line and stacked Column Chart: Makeup by Subcategory sales.
 - Line Chart: Total Due (Makeup) by Month and Year.

- KPI Cards:
 - ✓ Makeup Orders.
 - ✓ No. Subcategories by Makeup.
 - ✓ Makeup Subcategory Sales.
- **Skincare Dashboard**

Purpose: Focus on the sales and distribution of skincare products across customer segments

 - Charts:
 - Stacked Bar Chart: Skincare Orders by Gender.
 - Line and stacked Column Chart: Skincare by Subcategory sales.
 - line Chart: Total Due (Skincare) by Month and Year.
 - KPI Cards:
 - ✓ Skincare Orders.
 - ✓ No. Subcategories by Skincare.
 - ✓ Skincare Subcategory Sales.
- **Skin Type Dashboard**

Purpose: Understand how different skin types of influence product demand and sales.

 - Charts:
 - Stacked Bar Chart: No. Orders by Skin Type
 - Line and Stacked Column Chart: Total Quantity sold by Skin type.
 - Donut Chart (Activity Gauge): No. Products by Skin Type.
 - KPI Cards:
 - ✓ No. Products.
 - ✓ No. Skin Type.
- **Product Dashboard:**

Purpose: Assess product-level performance to support sales, pricing, and inventory decisions.

 - Charts:
 - Clustered Bar Chart: No. Products by Country of Origin
 - Donat Chart: Total Due by ProductName
 - Bar Chart (Linear Gauge): Forecast Sales (2025-2024) by ProductName
 - KPI Cards:
 - ✓ No. Products.
 - ✓ No. Products (Sold).
 - ✓ Total Quantity (Sold).
 - ✓ Avg Sales Price.
 - ✓ Avg Product Rating.

- **Customer Dashboard**

Purpose: Gain insights into customer demographics, behavior, and engagement levels.

- Charts:

Bar Chart (Linear Gauge): Customer by Age group.

Funnel Chart: Top Repeated Orders by CustomerID

Donut Chart (Activity Gauge): Count of Customers by Location.

- KPI Cards:

✓ No. Customers.

✓ Avg Customers Age.

✓ No. Cancelled by Customers.

- **Branch Dashboard**

Purpose: Measure and compare sales performance across different branch locations.

- Charts:

Map Chart: Total Due for each branch.

- KPI Cards:

✓ No. Branches.

✓ % of sales for each branch.

- **Salesperson Dashboard**

Purpose: Evaluate sales team effectiveness and achievement of targets.

- Charts:

Donut Chart: Top Total Due.

line and stacked Column Chart: Total Due and Sum of Sales Quota by FullName.

Stacked Bar Chart: Sales Quota by FullName.

- KPI Cards:

✓ No. salespersons.

✓ Target.

✓ % Target achievement 2023.

✓ % Target achievement 2024.

- **Shipping Method Dashboard**

Purpose: Understand customer preferences and trends in shipping methods.

- Charts:

Donut Chart: No. Orders by Shipment Type

Line Chart: Orders by Order Date and Orders by Ship Date by Month

- KPI Cards:
 - ✓ Pickup.
 - ✓ Standard Shipping.
 - ✓ Express Shipping.
 - ✓ No. Orders.
 - ✓ Total Freight.
 - ✓ No. Online Orders.
 - ✓ No. Pickup Orders.
 - ✓ % Online Orders.
- **Brand Performance Dashboard**

Purpose: Analyze the overall performance and market position of cosmetic brands.

 - Charts:
 - Clustered Bar Chart: Sum of Quantity Sold by Brand.
 - Clustered Column Chart: Top 5 Brands by Total Due.
 - KPI Cards:
 - ✓ No. Brands
 - ✓ Most Expensive Brand.
 - ✓ Top Country.
 - ✓ Brand With Most Product.
- **Top 3 Brands Dashboard**

Purpose: Explore detailed performance insights for the top-performing brands.

 - Charts:
 - Donut Chart: Total Due by Location.
 - Line Chart: Total Due by Month.
 - Clustered Column Chart: Count of Product by Gender.
 - KPI Cards:
 - ✓ Top Brand Name.
 - ✓ Total Due for Top Brand.
 - ✓ Total Quantity for Top Brand.
- **SSRS Reports (Static Reports)**

Purpose: Detailed tabular operational reports

 - Tabular Reports: Customers, Salesperson and Products.

Website Development

The website was developed using responsive design principles to ensure optimal viewing across all devices. Key features included:

- Product Catalog with filtering options
 - Cart and Checkout functionality
 - Contact Form and Customer Login
 - Admin panel for product and order management
-

Technologies Used

- Power BI

Used for designing and publishing interactive dashboards and reports. Power BI connects to the cleaned data model and allows stakeholders to filter and explore KPIs like sales, product performance, and customer behavior.

- Excel & Power Query

Utilized during the early stages for data cleaning, transformation, and shaping prior to loading into Power BI. It also supported preliminary analysis and prototyping.

- Python

Used to generate synthetic data, automate data enrichment, and handle specific data gaps using libraries like pandas.

- SQL Server (T-SQL)

Served as the backend data warehouse and was used to write complex queries for joining, aggregating, and preparing data for reporting.

- SQL Server Integration Services (SSIS)

ETL (Extract, Transform, Load) processes were developed using SSIS to automate the movement and transformation of data from raw sources into the data warehouse used for Power BI.

- SQL Server Reporting Services (SSRS)

Used for generating paginated operational reports, which complement the interactive dashboards and can be exported to PDF or scheduled for delivery.

- **HTML, CSS, JavaScript**

Used for building the frontend of the cosmetics website. Ensures responsive and user-friendly interface design.
- **Node.js**

Used on the backend of the website for managing business logic, product listings, and customer interactions.
- **Git & GitHub**

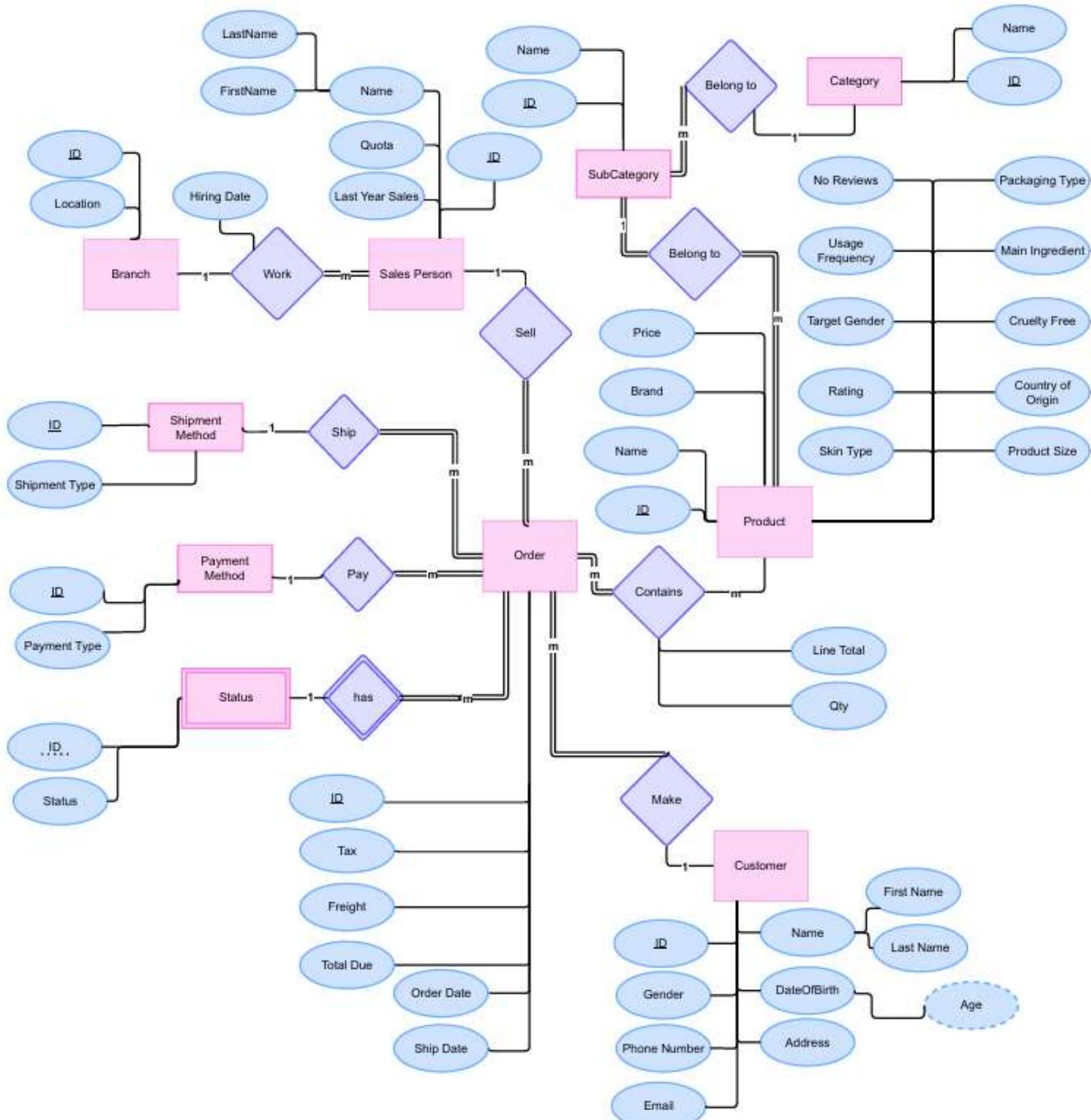
Provided version control and collaborative code management throughout the project development lifecycle.

Future Work

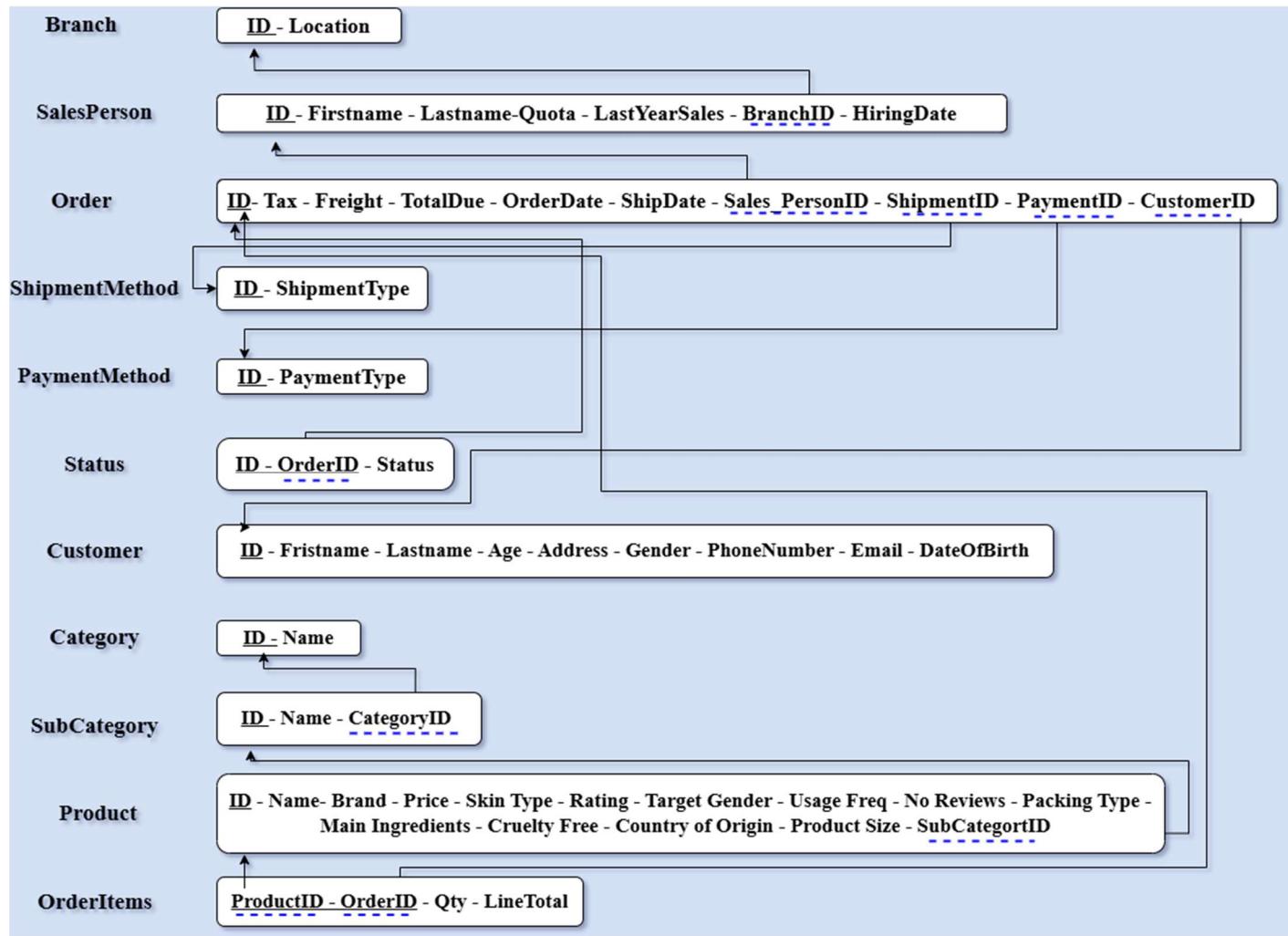
- Integrate Payment Gateways: Enable secure online payments (e.g., Visa, PayPal, Vodafone Cash).
- Recommendation Engine: Use customer history and behavior to suggest personalized products.
- Mobile App Version: Create a cross-platform app using Flutter or React Native.
- AI-based Forecasting: Add predictive sales and demand forecasting models using Power BI and Azure ML.
- Multi-language Support: Offer the website in Arabic and English for broader accessibility.
- WhatsApp Chatbot Integration: Automate customer support via WhatsApp.

Appendices

Appendix A: Data Collecting & Modeling



1 ERD



2 Mapping

```

generate_order_data.py ●
D: > ITI PowerBI Development > ITI Course Materials > GraduationProject > Data > generate_order_data.py > ...
1 import pandas as pd
2 import numpy as np
3 from datetime import datetime, timedelta
4
5 # --- 0. Mock Data Loading (REPLACE THIS SECTION WITH YOUR ACTUAL FILE LOADING) ---
6 # Generating dummy customer data based on your schema and count (3538 customers)
7
8 customers_df = pd.read_excel('D:\ITI PowerBI Development\ITI Course Materials\GraduationProject\Data\Customer.xlsx')
9 products_df = pd.read_csv('D:\ITI PowerBI Development\ITI Course Materials\GraduationProject\Data\Cosmetics1.csv')
10
11 print("--- Dummy Data Generated ---")
12 print(f"Number of Dummy Customers: {len(customers_df)}")
13 print(f"Number of Dummy Products: {len(products_df)}")
14 print("-----\n")
15
16 # --- 1. Configuration ---
17 NUM_ORDERS = 15000 # Set to 15,000 as requested
18 START_DATE = datetime(2023, 1, 1)
19 END_DATE = datetime(2024, 12, 31)
20 DATE_RANGE_DAYS = (END_DATE - START_DATE).days
21
22 TAX_RATE = 0.07 # 7% tax
23 FREIGHT_COSTS = {
24     'Pickup': 0.0,
25     'Standard Shipping': 5.0,
26     'Express Shipping': 15.0
27 }
28 SHIPPING_METHODS = list(FREIGHT_COSTS.keys())
29 SHIPPING_METHOD_PROBABILITIES = [0.15, 0.70, 0.15] # 15% pickup, 70% standard, 15% express
30
31 # --- 2. Generate Orders ---
32 all_orders_data = []
33 all_order_items_data = []
34 order_item_id_counter = 1 # To generate unique IDs for order items
35
36 print(f"Generating {NUM_ORDERS} orders and their items...\n")
37

```

3 Data Generate

```

D: > ITI PowerBI Development > ITI Course Materials > GraduationProject > Data > generate_order_data.py > ...
38 for i in range(NUM_ORDERS):
39     order_id = f'ORD-{i+1:07d}'
40
41     # Random Customer
42     customer = customers_df.sample(1).iloc[0]
43     customer_id = customer['CustomerID']
44
45     # Order Date
46     random_days_offset = np.random.randint(0, DATE_RANGE_DAYS + 1)
47     order_date = START_DATE + timedelta(days=random_days_offset)
48
49     # Shipping Method and Ship Date
50     shipping_method = np.random.choice(SHIPPING_METHODS, p=SHIPPING_METHOD_PROBABILITIES)
51     freight = FREIGHT_COSTS[shipping_method]
52
53     if shipping_method == 'Pickup':
54         ship_date = order_date
55     else:
56         ship_delay_days = np.random.randint(3, 8) # 3 to 7 days inclusive
57         ship_date = order_date + timedelta(days=ship_delay_days)
58
59     # Number of products in this order
60     num_products_in_order = np.random.randint(1, 6) # 1 to 5 different products per order
61
62     # Ensure we don't try to sample more products than available, though with 15k, unlikely to hit this for 1-5 products
63     products_for_this_order = products_df.sample(min(num_products_in_order, len(products_df)), replace=False)
64
65     total_order_linetotal = 0
66     total_order_tax = 0
67
68     # Ensure there's at least one product in the order (this loop will run if products_for_this_order is not empty)
69     if not products_for_this_order.empty:
70         for _, product in products_for_this_order.iterrows():
71             quantity = np.random.randint(1, 4) # 1 to 3 units of each product
72             unit_price = product['UnitPrice'] # Use the actual unit price from the product table
73             linetotal = round(quantity * unit_price, 2)
74             tax = round(linetotal * TAX_RATE, 2)

```

```

76     all_order_items_data.append({
77         'orderItemID': f'ITEM-{order_item_id_counter:09d}',
78         'orderID': order_id,
79         'ProductID': product['ProductID'],
80         'Quantity': quantity,
81         'unit price': unit_price,
82         'linetotal': linetotal,
83         'tax': tax
84     })
85     order_item_id_counter += 1
86
87     total_order_linetotal += linetotal
88     total_order_tax += tax
89 else:
90     # Fallback if no products were sampled (unlikely with num_products_in_order >= 1)
91     # This can happen if products_df is empty, or if min(num_products_in_order, len(products_df)) is 0
92     pass # An order with no items, total_order_linetotal and total_order_tax will remain 0
93
94 total_order_amount = round(total_order_linetotal + total_order_tax + freight, 2)
95
96 all_orders_data.append({
97     'orderID': order_id,
98     'CustomerID': customer_id,
99     'OrderDate': order_date.strftime('%Y-%m-%d %H:%M:%S'),
100    'shipDate': ship_date.strftime('%Y-%m-%d %H:%M:%S'),
101    'shipping_method': shipping_method,
102    'freight': round(freight, 2),
103    'total_linetotal_sum': round(total_order_linetotal, 2),
104    'total_tax_sum': round(total_order_tax, 2),
105    'total_amount': total_order_amount
106})

```

```

108 # Create DataFrames
109 orders_df = pd.DataFrame(all_orders_data)
110 order_items_df = pd.DataFrame(all_order_items_data)
111
112 # --- 3. Final Output and Saving ---
113 print("Generation complete.\n")
114
115 print("Orders DataFrame Head:")
116 print(orders_df.head())
117 print(f"\nTotal Orders Generated: {len(orders_df)}")
118
119 print("\nOrder Items DataFrame Head:")
120 print(order_items_df.head())
121 print(f"\nTotal Order Items Generated: {len(order_items_df)}")
122
123
124 # Save to CSV files
125 orders_df.to_csv('orders.csv', index=False)
126 order_items_df.to_csv('order_items.csv', index=False)
127
128 print("\n--- CSV Files Generated ---")
129 print("Order data saved to 'orders.csv'")
130 print("Order item data saved to 'order_items.csv'")
131 print("-----\n")

```

| | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O |
|----|-----------|---------------------|-------------------------|---------------|----------------|-----------|--------|-----------------|-------------|-------------|--------------|---------------|-----------------|--------------|-----------------|
| 1 | ProductID | ProductName | Brand | SubCategoryID | UsageFrequency | UnitPrice | Rating | NumberOfReviews | ProductSize | SkinType | GenderTarget | PackagingType | MainIngredient | CrueltyFree2 | CountryOfOrigin |
| 2 | 1 | Ultra Face Mask | Drunk Elephant | | 1 Weekly | 67.85 | 4.4 | 686 | 30ml | Sensitive | Female | Tube | Retinol | 0 | Australia |
| 3 | 2 | Ultra Lipstick | Laura Mercier | | 2 Occasional | 116.43 | 4.2 | 5483 | 250ml | Dry | Unisex | Bottle | Shea Butter | 0 | UK |
| 4 | 3 | Ultra Serum | Natasha Denona | | 3 Daily | 90.84 | 4.6 | 5039 | 100ml | Sensitive | Male | Compact | Aloe Vera | 1 | Italy |
| 5 | 4 | Divine Serum | Ilia Beauty | | 4 Occasional | 55.17 | 3.2 | 6202 | 250ml | Normal | Male | Tube | Glycerin | 1 | South Korea |
| 6 | 5 | Super Foundation | Charlotte Tilbury | | 3 Occasional | 140.56 | 4.7 | 297 | 100ml | Oily | Female | Compact | Glycerin | 0 | Germany |
| 7 | 6 | Super Eye Shadow | Danessa Myricks | | 5 Weekly | 135.82 | 3.2 | 9405 | 150ml | Sensitive | Female | Compact | Glycerin | 1 | UK |
| 8 | 7 | Super Lip Gloss | Bourjois | | 6 Monthly | 148.99 | 2.5 | 2423 | 250ml | Normal | Female | Jar | Hyaluronic Acid | 1 | Germany |
| 9 | 8 | Ultra Cleanser | Bourjois | | 7 Daily | 21.43 | 4.3 | 8032 | 200ml | Sensitive | Male | Bottle | Vitamin C | 1 | Italy |
| 10 | 9 | Magic Highlighter | IT Cosmetics | | 8 Occasional | 113.09 | 3.3 | 2468 | 200ml | Combination | Unisex | Compact | Vitamin C | 1 | Germany |
| 11 | 10 | Perfect Bronzer | Fenty Beauty | | 4 Weekly | 133.57 | 4.4 | 4127 | 150ml | Dry | Female | Compact | Hyaluronic Acid | 0 | Japan |
| 12 | 11 | Ultra Moisturizer | Sisley | | 6 Weekly | 104.91 | 4 | 8876 | 100ml | Combination | Female | Bottle | Retinol | 1 | UK |
| 13 | 12 | Divine CC Cream | Juvia's Place | | 9 Daily | 101.88 | 4.7 | 7196 | 50ml | Oily | Male | Bottle | Retinol | 0 | Italy |
| 14 | 13 | Ultra Setting Spray | NARS | | 10 Occasional | 34.2 | 1.9 | 4799 | 150ml | Oily | Unisex | Bottle | Vitamin C | 0 | Australia |
| 15 | 14 | Divine Primer | ColourPop | | 11 Occasional | 96 | 2.2 | 3557 | 150ml | Normal | Male | Spray | Salicylic Acid | 1 | Germany |
| 16 | 15 | Divine Exfoliator | Huda Beauty | | 12 Monthly | 26.21 | 4.9 | 4167 | 200ml | Sensitive | Unisex | Bottle | Shea Butter | 1 | USA |
| 17 | 16 | Perfect Blush | Tatcha | | 13 Daily | 104.06 | 3.2 | 2802 | 250ml | Dry | Unisex | Compact | Shea Butter | 0 | UK |
| 18 | 17 | Perfect Highlighter | Kiehl's | | 14 Occasional | 131.95 | 4 | 4860 | 150ml | Combination | Female | Stick | Salicylic Acid | 0 | USA |
| 19 | 18 | Super Cleanser | Huda Beauty | | 15 Monthly | 90.45 | 1.5 | 9690 | 150ml | Sensitive | Unisex | Tube | Salicylic Acid | 1 | South Korea |
| 20 | 19 | Ultra Face Oil | Tarte | | 16 Weekly | 65.13 | 2.9 | 2612 | 250ml | Sensitive | Male | Bottle | Hyaluronic Acid | 0 | Australia |
| 21 | 20 | Divine Lip Gloss | Glossier | | 17 Occasional | 55.14 | 3.8 | 9593 | 150ml | Sensitive | Male | Stick | Salicylic Acid | 0 | France |
| 22 | 21 | Perfect Blush | Make Up For Ever | | 18 Monthly | 35.33 | 3.4 | 4230 | 150ml | Normal | Unisex | Jar | Salicylic Acid | 0 | South Korea |
| 23 | 22 | Divine Foundation | Anastasia Beverly Hills | | 19 Daily | 145.37 | 2.3 | 6045 | 50ml | Combination | Male | Jar | Retinol | 1 | France |
| 24 | 23 | Divine Cleanser | Fenty Beauty | | 4 Monthly | 119.26 | 4.6 | 9425 | 100ml | Sensitive | Male | Compact | Hyaluronic Acid | 0 | Japan |
| 25 | 24 | Perfect Eyeliner | E.l.f. | | 2 Occasional | 148.69 | 3.7 | 59 | 150ml | Combination | Unisex | Jar | Retinol | 1 | Australia |
| 26 | 25 | Super Serum | Hourglass | | 5 Weekly | 96.3 | 3.2 | 7512 | 250ml | Normal | Male | Jar | Shea Butter | 1 | Australia |

4 Data Collecting & Cleaning

| 1 | CustomerID | FirstName | LastName | Gender | PhoneNumber | Address | Age | DateOfBirth | Email |
|----|------------|-----------|-----------|--------|-------------|----------|-----|-------------|------------------------------|
| 2 | 1 | Youssef | Hassan | Male | 2.01012E+11 | Egypt | 32 | 23-10-1993 | youssef.hassan@gmail.com |
| 3 | 2 | Nour | Kamal | Female | 9.7151E+11 | Emirates | 25 | 10-11-2000 | n.kamal@company.org |
| 4 | 3 | Adam | Smith | Male | 4.47123E+11 | England | 48 | 27-02-1977 | adam.smith@outlook.com |
| 5 | 4 | Leila | Miller | Female | 12125550123 | America | 29 | 22-08-1996 | leila.m@yahoo.com |
| 6 | 5 | Kai | Schmidt | Male | 4.91761E+12 | Germany | 55 | 04-02-1970 | kai.s@web.de |
| 7 | 6 | Omar | Ahmed | Male | 2.01123E+11 | Egypt | 21 | 23-07-2004 | omar.a@mail.com |
| 8 | 7 | Hannah | Davies | Female | 4.47988E+11 | England | 37 | 11-06-1988 | hannah.davies@protonmail.com |
| 9 | 8 | Diego | Rodriguez | Male | 13051234567 | America | 41 | 24-11-1984 | diego.r@gmail.com |
| 10 | 9 | Fatma | Ali | Female | 9.7153E+11 | Emirates | 30 | 12-10-1995 | fatma.ali@domain.net |
| 11 | 10 | Lina | Becker | Female | 4.91522E+12 | Germany | 28 | 17-03-1997 | lina.b@gmx.com |
| 12 | 11 | Malak | Fahmy | Female | 2.01235E+11 | Egypt | 23 | 12-08-2002 | malak.f@live.com |
| 13 | 12 | Ethan | Wilson | Male | 4.47789E+11 | England | 50 | 04-02-1975 | e.wilson@fastmail.com |
| 14 | 13 | Sophia | Garcia | Female | 14151234567 | America | 34 | 07-06-1991 | sophia.garcia@mail.com |
| 15 | 14 | Hassan | Mohammed | Male | 9.71568E+11 | Emirates | 40 | 22-06-1985 | hassan.m@mail.ae |
| 16 | 15 | Emilia | Schneider | Female | 4.9161E+12 | Germany | 31 | 13-12-1994 | emilia.s@email.com |
| 17 | 16 | Amira | Tarek | Female | 2.01099E+11 | Egypt | 27 | 08-09-1998 | amira.t@icloud.com |
| 18 | 17 | Oliver | Brown | Male | 4.47512E+11 | England | 58 | 20-11-1967 | oliver.b@aol.com |
| 19 | 18 | Mia | Davis | Female | 19179876543 | America | 20 | 23-07-2005 | mia.davis@zoho.com |
| 20 | 19 | Ahmed | Saad | Male | 9.71551E+11 | Emirates | 45 | 21-10-1980 | ahmed.saad@webmail.org |
| 21 | 20 | Lena | Weber | Female | 4.91701E+12 | Germany | 36 | 13-09-1989 | lena.w@post.com |
| 22 | 21 | Nourhan | Ashraf | Female | 2.01277E+11 | Egypt | 29 | 14-04-1996 | nourhan.a@me.com |
| 23 | 22 | Harry | Taylor | Male | 4.474E+11 | England | 60 | 01-09-1965 | harry.t@outlook.co.uk |
| 24 | 23 | Chloe | Martinez | Female | 16461234567 | America | 18 | 22-08-2007 | chloe.m@proton.me |
| 25 | 24 | Khaled | Mostafa | Male | 9.71543E+11 | Emirates | 33 | 14-10-1992 | khaled.mostafa@mail.ae |
| 26 | 25 | Julia | Fischer | Female | 4.9173E+11 | Germany | 47 | 15-02-1978 | julia.f@t-online.de |

| | A | B | C | D | E | F | G | H | I | J | K | L | M |
|----|-------------|---------------|------------|-----------|----------|-------------------|--------------|-----------------|---------|---------------|----------------|----------|---|
| 1 | OrderID | SalesPersonID | CustomerID | OrderDate | ShipDate | ShippingMethod | ShipMethodID | PaymentMethodID | Freight | TotalSubTotal | TotalTax/Order | TotalDue | |
| 2 | ORD-0000001 | 15 | 2440 | 11-09-24 | 18-09-24 | Standard Shipping | 1 | 2 | 5 | 223.33 | 15.63 | 243.96 | |
| 3 | ORD-0000002 | 3 | 1848 | 22-02-24 | 29-02-24 | Standard Shipping | 1 | 2 | 5 | 788.42 | 55.2 | 848.62 | |
| 4 | ORD-0000003 | 26 | 1925 | 12-08-23 | 19-08-23 | Standard Shipping | 1 | 2 | 5 | 285.13 | 19.95 | 310.08 | |
| 5 | ORD-0000004 | 9 | 3377 | 06-11-24 | 13-11-24 | Standard Shipping | 1 | 1 | 5 | 236.7 | 16.57 | 258.27 | |
| 6 | ORD-0000005 | 18 | 2719 | 10-06-24 | 10-06-24 | Pickup | 3 | 1 | 0 | 1187.23 | 83.11 | 1270.34 | |
| 7 | ORD-0000006 | 19 | 1082 | 30-05-24 | 02-06-24 | Express Shipping | 2 | 1 | 15 | 518.34 | 36.29 | 569.63 | |
| 8 | ORD-0000007 | 6 | 1687 | 24-06-23 | 01-07-23 | Standard Shipping | 1 | 2 | 5 | 271.72 | 19.02 | 295.74 | |
| 9 | ORD-0000008 | 7 | 3329 | 04-01-23 | 11-01-23 | Standard Shipping | 1 | 2 | 5 | 748.5 | 52.4 | 805.9 | |
| 10 | ORD-0000009 | 4 | 218 | 13-08-23 | 20-08-23 | Standard Shipping | 1 | 2 | 5 | 452.3 | 31.66 | 488.96 | |
| 11 | ORD-0000010 | 2 | 1299 | 01-09-24 | 08-09-24 | Standard Shipping | 1 | 2 | 5 | 916.92 | 64.18 | 986.1 | |
| 12 | ORD-0000011 | 26 | 187 | 18-06-24 | 25-06-24 | Standard Shipping | 1 | 1 | 5 | 275.42 | 19.28 | 299.7 | |
| 13 | ORD-0000012 | 30 | 787 | 16-06-23 | 23-06-23 | Standard Shipping | 1 | 2 | 5 | 1267.13 | 88.7 | 1360.83 | |
| 14 | ORD-0000013 | 4 | 496 | 01-08-23 | 01-08-23 | Pickup | 3 | 1 | 0 | 714.15 | 50 | 764.15 | |
| 15 | ORD-0000014 | 20 | 3193 | 07-08-23 | 07-08-23 | Pickup | 3 | 1 | 0 | 1156.03 | 80.92 | 1236.95 | |
| 16 | ORD-0000015 | 25 | 920 | 14-07-24 | 21-07-24 | Standard Shipping | 1 | 2 | 5 | 144.9 | 10.14 | 160.04 | |
| 17 | ORD-0000016 | 23 | 2730 | 22-10-24 | 29-10-24 | Standard Shipping | 1 | 1 | 5 | 344.17 | 24.09 | 373.26 | |
| 18 | ORD-0000017 | 20 | 3483 | 30-07-23 | 06-08-23 | Standard Shipping | 1 | 1 | 5 | 177.5 | 12.42 | 194.92 | |
| 19 | ORD-0000018 | 21 | 3187 | 10-11-23 | 13-11-23 | Express Shipping | 2 | 2 | 15 | 274.28 | 19.2 | 308.48 | |
| 20 | ORD-0000019 | 9 | 2877 | 12-06-23 | 12-06-23 | Pickup | 3 | 2 | 0 | 195.78 | 13.7 | 209.48 | |
| 21 | ORD-0000020 | 24 | 1763 | 13-09-24 | 20-09-24 | Standard Shipping | 1 | 1 | 5 | 86.87 | 6.08 | 97.95 | |
| 22 | ORD-0000021 | 18 | 1703 | 09-07-23 | 12-07-23 | Express Shipping | 2 | 1 | 15 | 311.68 | 21.82 | 348.5 | |
| 23 | ORD-0000022 | 27 | 982 | 29-09-23 | 06-10-23 | Standard Shipping | 1 | 2 | 5 | 891.36 | 62.4 | 958.76 | |
| 24 | ORD-0000023 | 5 | 464 | 02-02-24 | 09-02-24 | Standard Shipping | 1 | 2 | 5 | 135.43 | 9.48 | 149.91 | |
| 25 | ORD-0000024 | 26 | 1342 | 15-07-24 | 22-07-24 | Standard Shipping | 1 | 1 | 5 | 357.81 | 25.05 | 387.86 | |

| | A | B | C | D | E |
|----|-------------|-----------|----------|-----------|-----------|
| 1 | OrderID | ProductID | Quantity | UnitPrice | LineTotal |
| 2 | ORD-0000001 | 8734 | 1 | 135.15 | 135.15 |
| 3 | ORD-0000001 | 10057 | 2 | 44.09 | 88.18 |
| 4 | ORD-0000002 | 6669 | 2 | 134.77 | 269.54 |
| 5 | ORD-0000002 | 9077 | 3 | 69.41 | 208.23 |
| 6 | ORD-0000002 | 7056 | 3 | 103.55 | 310.65 |
| 7 | ORD-0000003 | 7900 | 3 | 48.07 | 144.21 |
| 8 | ORD-0000003 | 10342 | 1 | 140.92 | 140.92 |
| 9 | ORD-0000004 | 1007 | 2 | 63.52 | 127.04 |
| 10 | ORD-0000004 | 2193 | 1 | 109.66 | 109.66 |
| 11 | ORD-0000005 | 3459 | 3 | 128.01 | 384.03 |
| 12 | ORD-0000005 | 11924 | 2 | 104.05 | 208.1 |
| 13 | ORD-0000005 | 3696 | 2 | 113.22 | 226.44 |
| 14 | ORD-0000005 | 13239 | 1 | 32.66 | 32.66 |
| 15 | ORD-0000005 | 11415 | 3 | 112 | 336 |
| 16 | ORD-0000006 | 10533 | 3 | 68.27 | 204.81 |
| 17 | ORD-0000006 | 11460 | 1 | 147.89 | 147.89 |
| 18 | ORD-0000006 | 11527 | 1 | 93.68 | 93.68 |
| 19 | ORD-0000006 | 6534 | 1 | 26.11 | 26.11 |
| 20 | ORD-0000006 | 13799 | 1 | 45.85 | 45.85 |
| 21 | ORD-0000007 | 5488 | 2 | 135.86 | 271.72 |
| 22 | ORD-0000008 | 8672 | 1 | 13 | 13 |
| 23 | ORD-0000008 | 14336 | 1 | 48.95 | 48.95 |
| 24 | ORD-0000008 | 14255 | 1 | 23.27 | 23.27 |
| 25 | ORD-0000008 | 710 | 2 | 142.37 | 284.74 |
| 26 | ORD-0000008 | 893 | 3 | 126.18 | 378.54 |

```
TablesCreation.sql...AN\Tech Trick (51)) ✎ X
Create Table Branch (BranchID int , Location varchar(20))

Create Table Customer (CustomerID int, FirstName varchar(20), LastName varchar(20),
                      Gender varchar(10), PhoneNumber int, Address varchar(20),
                      Age int, Email varchar(20))

Create Table PaymentMethod (PaymentMethodID int, PaymentType varchar(10))

Create Table SalesPerson (SalesPersonID int, FirstName varchar(20), LastName varchar(20),
                         SalesQuota int, SalesLastYear int, HiringDate date, BranchID int)

Create Table ShipmentMethod (ShipMethodID int, ShipmentType varchar(20))

Create Table Status (StatusID int, StatusType varchar(15), OrderID varchar(20))

Create Table Products (ProdcutID int, ProductName varchar(20), Brand varchar(50),
                      CategoryID int, SubCategoryID int, UsageFrequency varchar(30),
                      UnitePrice float, Rating float, NumberOfReviews int, ProductSize varchar(10),
                      SkinType varchar(15), GenderTarget varchar(10), PackagingType varchar(20),
                      MainIngredient varchar(30), CrueltyFree bit, CountryOfOrigin varchar(20))

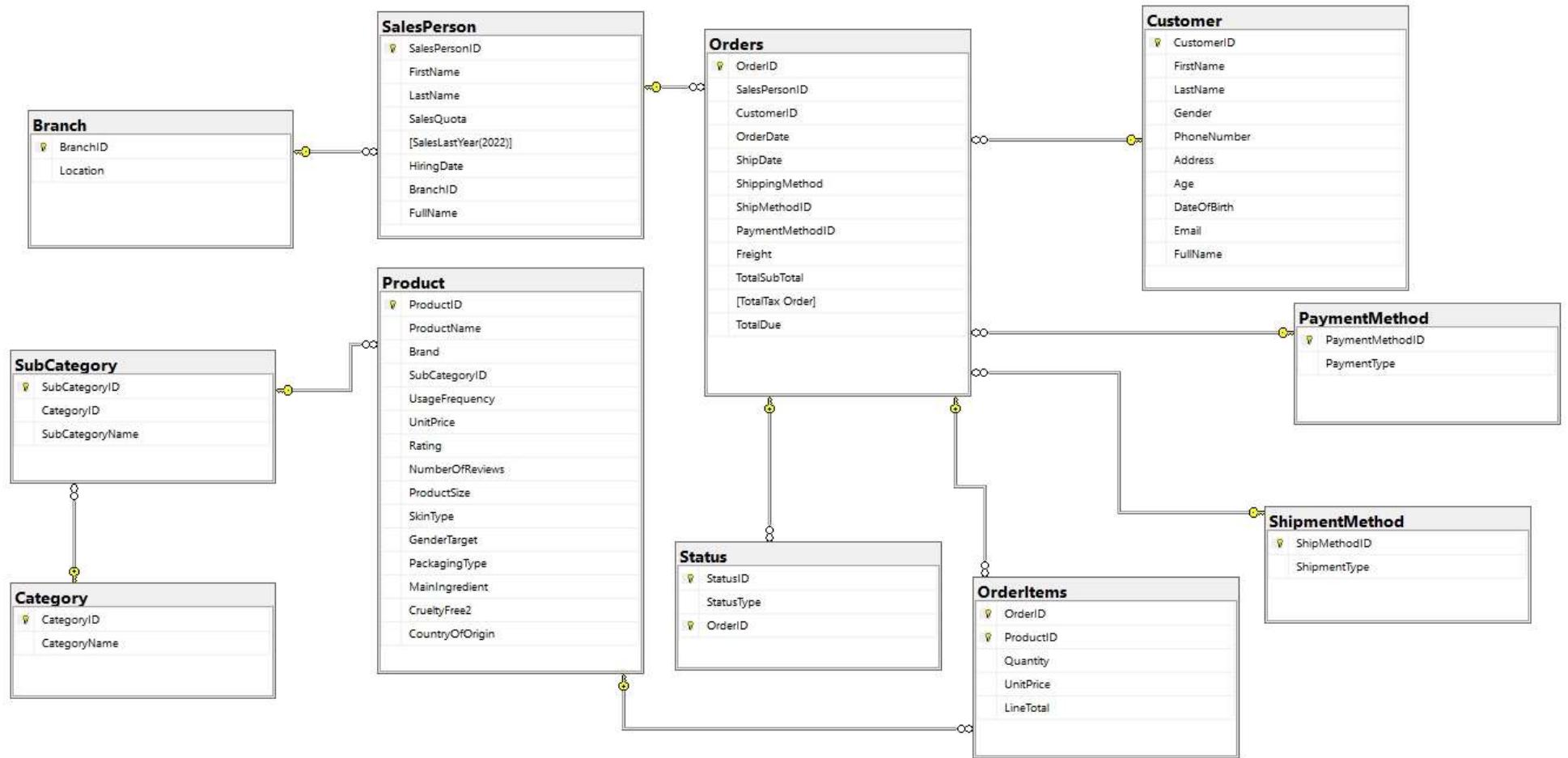
Create Table Orders (OrderID varchar(20), SalesPersonID int, CustomerID int, OrderDate date, ShipDate date,
                     ShippingMethod varchar(20), ShipMethodID int, PaymentMethodID int, Freight int,
                     TotalSubTotal float, TotalTaxPEROrder float, TotalDue float)

Create Table OrderItems (OrderID varchar(20), ProductID int, Quantity int, UnitPrice float,
                        LineTotal float, Tax float)

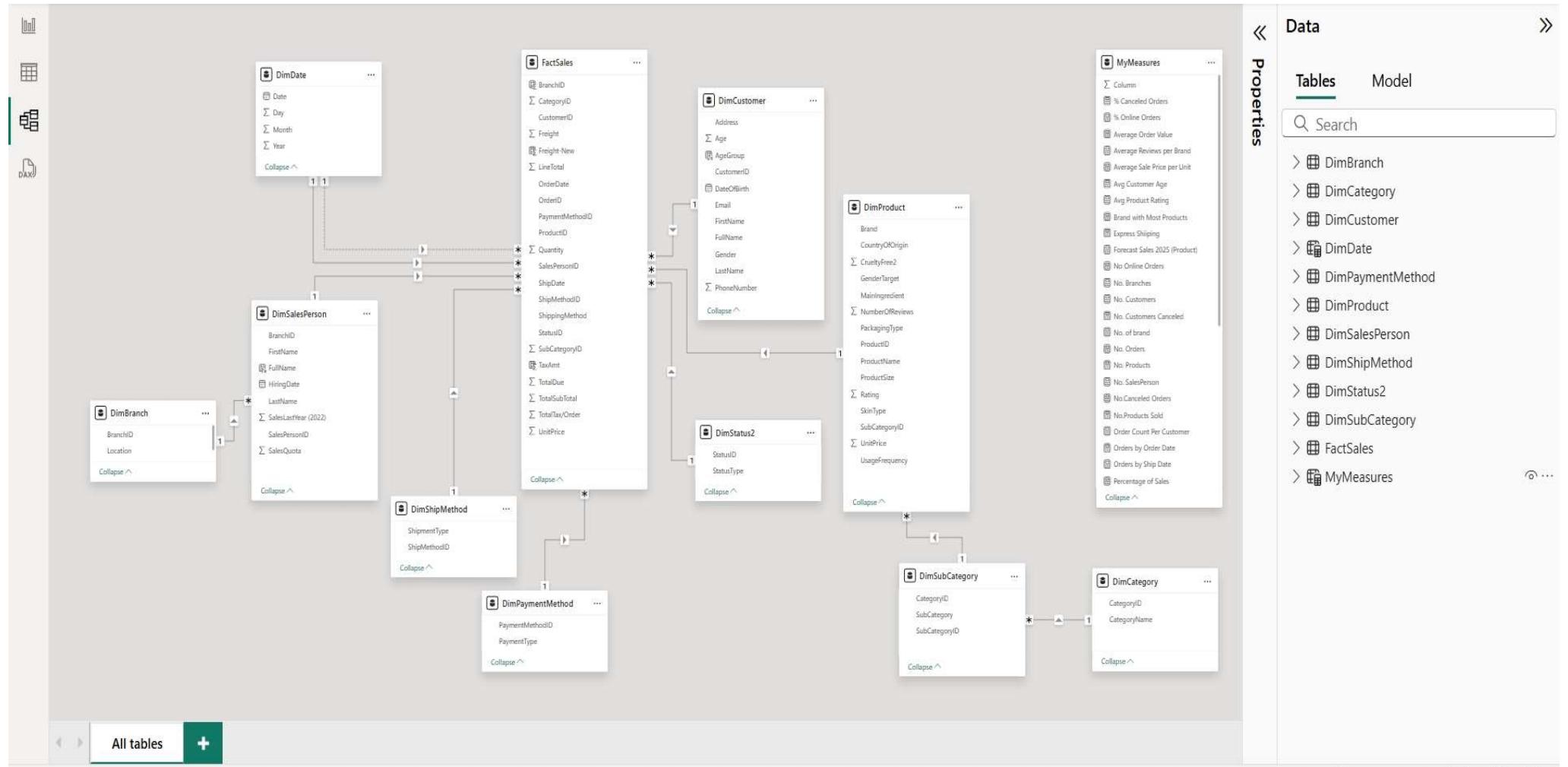
Create Table Category (CategoryID int, CategoryName varchar(25))

Create Table SubCategory (SubCategoryID int, CategoryID int, SubCategoryName varchar(25))
```

5 Tables Creation



6 Relational Database Schema



7 DWH Modeling in PowerBI

Appendix B: Data Validation

Data Validation.sql...AN\Tech Trick (53))

```
1 Select distinct Count(orderID) as [Number Of Orders]
2   From Orders
3
4 Select COUNT(CustomerID) as [Number Of Customers]
5   From DimCustomer
6
7 Select SUM(TotalDue) as [Total Due]
8   From Orders
9
10 Select SUM(Quantity) as [Number of Sold Quantity]
11  From FactSales
```

157 %

Results Messages

| | |
|-------------------------|------------------|
| Number Of Orders | 15000 |
| Number Of Customers | 3538 |
| Total Due | 7797692.59999998 |
| Number of Sold Quantity | 89765 |

Data Validation.sql...AN\Tech Trick (53))

```
1 Select Count(BranchID) as [Number of Branches]
2   From Branch
3
4 Select COUNT(SalesPersonID) as [Number of Sales Person]
5   From DimSalesPerson
6
7 Select SUM([TotalTax Order]) as [Total Tax]
8   From Orders
9
10 Select SUM(freight) as [Total Freight]
11  From Orders
```

157 %

Results Messages

| | |
|------------------------|------------------|
| Number of Branches | 5 |
| Number of Sales Person | 30 |
| Total Tax | 504476.010000001 |
| Total Freight | 86465 |

Data Validation.sql...AN\Tech Trick (53) ➔ X

```
Select SUM(lineTotal) as [Total Subtotal]
From FactSales

Select SUM(TotalDue) / COUNT(OrderID) as [Average Order Value]
From Orders

Select COUNT(SubCategoryID) as [Number of Subcategories]
From DimSubCategory

Select COUNT(SubCategoryID) as [Number of Makeup Subcategories]
From DimSubCategory
Where CategoryID = 1
```

157 %

Results Messages

| | Total Subtotal |
|---|----------------|
| 1 | 7206751.59 |

| | Average Order Value |
|---|---------------------|
| 1 | 519.846173333332 |

| | Number of Subcategories |
|---|-------------------------|
| 1 | 24 |

| | Number of Makeup Subcategories |
|---|--------------------------------|
| 1 | 16 |

Data Validation.sql...AN\Tech Trick (53) ➔ X

```
Select COUNT(SubCategoryID) as [Number of Skincare Subcategories]
From DimSubCategory
Where CategoryID = 2

Select C.CategoryName, COUNT(DISTINCT FS.OrderID) as NumberofOrders
From FactSales FS
Join DimProduct DP ON FS.ProductID = DP.ProductID
Join DimSubCategory DSC ON DP.SubCategoryID = DSC.SubCategoryID
Join DimCategory C ON DSC.CategoryID = C.CategoryID
Group By C.CategoryName

Select SkinType, COUNT(ProductID) as [Number Of Products]
From DimProduct
Group By SkinType
```

157 %

Results Messages

| | Number of Skincare Subcategories |
|---|----------------------------------|
| 1 | 8 |

| | CategoryName | NumberofOrders |
|---|--------------|----------------|
| 1 | Makeup | 13465 |
| 2 | SkinCare | 9884 |

| | SkinType | Number Of Products |
|---|-------------|--------------------|
| 1 | Combination | 3060 |
| 2 | Sensitive | 2965 |
| 3 | Dry | 2965 |
| 4 | Normal | 2991 |
| 5 | Oily | 3009 |

Data Validation.sql...AN\Tech Trick (53) ▾ X

```

Select count(Distinct ProductID) as [Number Of sold Products]
From OrderItems

Select AVG(Rating) as [Average Products Rating]
From Product

Select AVG(Age) as [Average Customers Age]
From Customer

Select Sum(SalesQuota) as [Sales Target]
From DimSalesPerson

Select COUNT(Distinct brand) as [Number Of Brands]
From Product

```

157 % ▾

Results Messages

| Number Of sold Products | 14245 |
|-------------------------|------------------|
| Average Products Rating | 3.00232666666668 |
| Average Customers Age | 38 |
| Sales Target | 3684800 |
| Number Of Brands | 40 |

Appendix C Stored Procedures Creation

SP final project.sql...MAN\Tech Trick (56) ▾ X

```

Create procedure InsProduct
@ProductID int,
@ProductName Varchar(50),
@Brand Varchar(50),
@SkinType Varchar(50),
@GenderTarget Varchar(50),
@SubCategoryID int
As
Begin
    insert into Product(ProductID,ProductName,Brand,SkinType,GenderTarget,SubCategoryID)
    Values(@ProductID,@ProductName,@Brand,@SkinType,@GenderTarget,@SubCategoryID)
End

CREATE PROCEDURE UpProduct
    @ProductID INT,
    @NewRating FLOAT
AS
BEGIN
    UPDATE Product
    SET Rating = @NewRating
    WHERE ProductID = @ProductID
END

Create Procedure DelProduct

```

157 % ▾

Connected. (1/1) AHMEDAYMAN\SQLEXPRESS (16.0...) AHMEDAYMAN\Tech Trick ... master 00:00:00 0 rows

```
SP final project.sql...MAN\Tech Trick (56) ✎ X
=====
Create Procedure DelProduct
@ProductID int
AS
Begin
    Delete from Products
    Where ProductID = @ProductID
End
=====
Create Procedure GetAllProducts
    @ProductID int = NULL
AS
BEGIN
    IF @ProductID IS NULL
        SELECT * FROM Products
    ELSE
        SELECT * FROM Products WHERE ProductID = @ProductID
END
=====
```

```
SP final project.sql...MAN\Tech Trick (56) ✎ X
=====
Create Procedure InsOrders
@OrderID varchar(50),
@SalesPersonID int,
@CustomerID int,
@OrderDate Date,
@PaymentMethodID int,
@TotalDue float
AS
IF NOT EXISTS (select OrderID from Orders where OrderID=@OrderID)
    Insert into Orders(OrderID,SalesPersonID,CustomerID,OrderDate,PaymentMethodID,TotalDue)
    Values(@OrderID,@SalesPersonID,@CustomerID,@OrderDate,@PaymentMethodID,@TotalDue)
Else
    Select 'Duplicate Data'
=====
Create Procedure UpOrders
@OrderID varchar(50),
@NewTotalDue float
As
Begin
    Update Orders
    Set TotalDue=@NewTotalDue
    Where OrderID=@OrderID
End
=====
```

```
SP final project.sql...MAN\Tech Trick (56) ✎ X
=====
Create Procedure DelOrders
@OrderID varchar(50)
AS
Begin
    Delete from Orders where OrderID = @OrderID
End
=====
Create Procedure GetAllOrders
AS
Begin
    Select * from Orders
End
=====
Create Procedure InsCustomers
@CustomerID int,
@FirstName varchar(30),
@LastName varchar(30),
@Gender varchar(10),
@PhoneNumber bigint,
@Address varchar(100),
@Age int,
@email varchar(200)
AS
Begin
    Insert into Customer (CustomerID,FirstName, LastName, Gender, PhoneNumber, Address, Age, Email)
    values (@CustomerID,@FirstName, @LastName, @Gender, @PhoneNumber, @Address, @Age, @Email)
End
=====
```

```
SP final project.sql...MAN\Tech Trick (56)  ↗ X
-----
Create Procedure UpCustomers
    @CustomerID int,
    @NewEmail varchar(200)
AS
Begin
    if NOT EXISTS (select * from Customer where CustomerID = @CustomerID)
        Begin
            Print 'Customer not found.'
            Return
        End
    Declare @CurrentEmail Nvarchar(100);
    Select @CurrentEmail = Email from Customer where CustomerID = @CustomerID;

    if @CurrentEmail = @NewEmail
        Begin
            Print 'No change in email address.'
        End
    Else
        Begin
            Update Customer
            Set Email = @NewEmail
            Where CustomerID = @CustomerID
            Print 'Email updated successfully.'
        End
End
-----
```

```
SP final project.sql...MAN\Tech Trick (56)  ↗ X
-----
Create Procedure DelCustomers
    @CustomerID int
AS
Begin
    Declare @Age int
    Select @Age = Age from Customer Where CustomerID = @CustomerID

    IF @Age < 18
        Print 'underage or age not recorded.'
    else
        Begin
            Delete From Customer Where CustomerID = @CustomerID
            Print 'Customer deleted successfully.'
        End
End
-----
```

```
Create Procedure GetAllCustomers
    @CustomerID INT = NULL
AS
BEGIN
    IF @CustomerID IS NULL
        SELECT * FROM Customer
    ELSE
        SELECT * FROM Customer WHERE CustomerID = @CustomerID
END
=====
```

```
SP final project.sql...MAN\Tech Trick (56)  ↗ X
=====
Create Procedure InsSalesPersons
    @FirstName varchar(50),
    @LastName varchar(50),
    @SalesQuota int,
    @SalesLastYear int,
    @HiringDate date,
    @BranchID int
AS
Begin
    Insert into SalesPerson (FirstName, LastName, SalesQuota, [SalesLastYear(2022)], HiringDate, BranchID)
    Values (@FirstName, @LastName, @SalesQuota, @SalesLastYear, @HiringDate, @BranchID)
End
=====
```

SP final project.sq...MAN\Tech Trick (56) ▾ X

```
Create Procedure UpSalesPerson
    @SalesPersonID int,
    @NewQuota int
AS
Begin
    Declare @CurrentQuota int
    Select @CurrentQuota = SalesQuota From SalesPerson Where SalesPersonID = @SalesPersonID

    if @NewQuota <= @CurrentQuota
        print 'New quota must be higher than the current quota.'
    else
        Begin
            Update SalesPerson
            set SalesQuota = @NewQuota
            Where SalesPersonID = @SalesPersonID

            Print 'Sales quota updated successfully.'
        End
End
```

SP final project.sq...MAN\Tech Trick (56) ▾ X

```
Create Procedure DelSalesPerson
    @SalesPersonID int
AS
Begin
    Declare @HiringDate Date
    Select @HiringDate = HiringDate from SalesPerson where SalesPersonID = @SalesPersonID

    IF @HiringDate IS NULL
        Print 'Sales person not found.'
    else if DATEDIFF(DAY, @HiringDate, GETDATE()) < 365
        Print 'Cannot delete. Employee must be hired more than 1 year ago.'
    else
        Begin
            Delete From SalesPerson where SalesPersonID = @SalesPersonID
            Print 'Sales person deleted successfully.'
        End
End
```

CREATE PROCEDURE GetAllSalesPerson
 @SalesPersonID Int = NULL
AS
BEGIN
 IF @SalesPersonID IS NULL
 SELECT * FROM SalesPerson
 ELSE
 SELECT * FROM SalesPerson WHERE SalesPersonID = @SalesPersonID
END

130 % ▾ Connected. (1/1)

AHMEDAYMAN\SQLEXPRESS (16.0... AHMEDAYMAN\Tech Trick... master | 00:00:00 | 0 rows

SP final project.sq...MAN\Tech Trick (56) ▾ X

```
=====CREATE PROCEDURE InsBranch
    @BranchID INT,
    @Location NVARCHAR(200)
AS
BEGIN
    INSERT INTO Branch (BranchID, Location)
    VALUES (@BranchID, @Location)
END
```

```
=====CREATE PROCEDURE UpBranch
    @BranchID INT,
    @NewLocation NVARCHAR(200)
AS
BEGIN
    UPDATE Branch
    SET Location = @NewLocation
    WHERE BranchID = @BranchID
END
```

```
=====CREATE PROCEDURE DelBranch
    @BranchID INT
AS
BEGIN
    DELETE FROM Branch
    WHERE BranchID = @BranchID
END
```

```
SP final project.sql...MAN\Tech Trick (56)  ↗ X
=====
CREATE PROCEDURE GetAllBranch
    @BranchID INT = NULL
AS
BEGIN
    IF @BranchID IS NULL
        SELECT * FROM Branch
    ELSE
        SELECT * FROM Branch WHERE BranchID = @BranchID
END
=====
CREATE PROCEDURE InsSubCategory
    @SubCategoryID INT,
    @CategoryID INT,
    @SubCategoryName NVARCHAR(200)
AS
BEGIN
    INSERT INTO SubCategory (SubCategoryID, CategoryID, SubCategoryName)
    VALUES (@SubCategoryID, @CategoryID, @SubCategoryName)
END
```

```
SP final project.sql...MAN\Tech Trick (56)  ↗ X
=====
CREATE PROCEDURE UpSubCategory
    @SubCategoryID INT,
    @NewCategoryID INT,
    @NewSubCategoryName NVARCHAR(200)
AS
BEGIN
    UPDATE SubCategory
    SET CategoryID = @NewCategoryID,
        SubCategoryName = @NewSubCategoryName
    WHERE SubCategoryID = @SubCategoryID
END
=====
CREATE PROCEDURE DelSubCategory
    @SubCategoryID INT
AS
BEGIN
    DELETE FROM SubCategory
    WHERE SubCategoryID = @SubCategoryID
END
```

```
=====
CREATE PROCEDURE GetAllSubCategory
    @SubCategoryID INT = NULL
AS
BEGIN
    IF @SubCategoryID IS NULL
        SELECT * FROM SubCategory
    ELSE
        SELECT * FROM SubCategory WHERE SubCategoryID = @SubCategoryID
END
```

Appendix D Stored Procedures Execution

```
-----  
      InsSalesPersons "Ahmed", "Ayman", 45000, 30000, "5-7-2022", 2  
117 %  
-----  
 Messages  
  
(1 row affected)  
  
Completion time: 2025-06-26T21:54:10.6272161+03:00
```

```
-----  
      UpSalesPerson 32, 50000  
200 %  
-----  
 Messages  
  
(1 row affected)  
Sales quota updated successfully.  
  
Completion time: 2025-06-26T21:56:30.3151830+03:00
```

```
-----  
      UpSalesPerson 32, 20000  
%  
-----  
 Messages  
  
New quota must be higher than the current quota.  
  
Completion time: 2025-06-26T21:57:36.2748089+03:00
```

```
-----  
      DelSalesPerson 31  
137 %  
-----  
 Messages  
  
Sales person not found.  
  
Completion time: 2025-06-26T22:03:58.2554484+03:00
```

```
InsCustomers "Ahmed", "Gomaa", "male", 01080200208, "Egypt", 27, "Ahmed Gomaa", "ahmedgomaa@gmail.com"
```

37 % Messages

(1 row affected)

Completion time: 2025-06-26T22:01:48.2929250+03:00

```
InsCustomers "Ahmed", "Gomaa", "male", 01080200208, "Egypt", 27, "Ahmed Gomaa", "ahmedgomaa@gmail.com"
select * from customer where CustomerID = 3540
```

137 % Results Messages

| | CustomerID | FirstName | LastName | Gender | PhoneNumber | Address | Age | DateOfBirth | Email | FullName |
|---|------------|-----------|----------|--------|-------------|---------|-----|-------------|-------------------|-------------|
| 1 | 3540 | ahmed | ahmed | male | 1275536508 | ps | 25 | NULL | ahmedahme@gma.com | Ahmed ahmed |

UpCustomers 3540, "ahmed@gmail.com"

137 % Messages

```
(1 row affected)
Email updated successfully.
```

Completion time: 2025-06-26T22:07:40.3333849+03:00

DESKTOP-AMTD4VO\...tics - dbo.Orders

test.sql - DESKTOP-AMTD4VO\...Dell (58)* SP final project.sq...-AMTD4VO\...D

```
InsSubCategory 1, "Beauty Blender"
```

137 % Messages

(1 row affected)

Completion time: 2025-06-26T22:11:39.9518124+03:00

GetAllSubCategory 26

137 %

Results Messages

| | SubCategoryID | CategoryID | SubCategoryName |
|---|---------------|------------|-----------------|
| 1 | 26 | 1 | Beauty Blender |

```
UpSubCategory 26,1,"Brush"
137 % < Messages
(1 row affected)

Completion time: 2025-06-26T22:13:58.7968006+03:00
```

GetAllSubCategory 26

| | SubCategoryID | CategoryID | SubCategoryName |
|---|---------------|------------|-----------------|
| 1 | 26 | 1 | Brush |

Appendix E Constraints

```
Constraints.sql - A...AN\Tech Trick (55)* Constraints.sql - A...AN\Tech Trick (52)
----- NOT NULL columns -----
ALTER TABLE [dbo].[Orders] ALTER COLUMN OrderDate DATETIME NOT NULL;
ALTER TABLE [dbo].[Customer] ALTER COLUMN FullName VARCHAR(100) NOT NULL;
ALTER TABLE [dbo].[Product] ALTER COLUMN ProductName VARCHAR(100) NOT NULL;
ALTER TABLE [dbo].[Status] ALTER COLUMN StatusType NVARCHAR(50) NOT NULL;
ALTER TABLE [dbo].[PaymentMethod] ALTER COLUMN PaymentType NVARCHAR(50) NOT NULL;
ALTER TABLE [dbo].[OrderItems] ALTER COLUMN Quantity INT NOT NULL;
ALTER TABLE [dbo].[OrderItems] ALTER COLUMN UnitPrice float NOT NULL;
ALTER TABLE [dbo].[Category] ALTER COLUMN CategoryName NVARCHAR(50) NOT NULL;

----- UNIQUE Constraints -----
-- Category Name
ALTER TABLE [dbo].[Category]
ADD CONSTRAINT UQ_Category_CategoryName UNIQUE (CategoryName);

----- CHECK Constraints -----
-- Order date before ship date
ALTER TABLE [dbo].[Orders]
ADD CONSTRAINT CK_Order_Date_Validation
CHECK (OrderDate <= ShipDate OR ShipDate IS NULL);

-- Non-negative Freight
ALTER TABLE [dbo].[Orders]
ADD CONSTRAINT CK_Order_Freight
CHECK (Freight >= 0);

-- Non-negative SubTotal
ALTER TABLE [dbo].[Orders]
ADD CONSTRAINT CK_Order_TotalSubTotal
CHECK (TotalSubTotal >= 0);

-- Product rating between 1-5
ALTER TABLE [dbo].[Product]
ADD CONSTRAINT CK_Product_Rating
CHECK (Rating BETWEEN 1 AND 5);
```

```
-- OrderItems quantity positive
ALTER TABLE [dbo].[OrderItems]
ADD CONSTRAINT CK_OrderItems_Quantity
CHECK (Quantity > 0);

-- OrderItems unit price non-negative
ALTER TABLE [dbo].[OrderItems]
ADD CONSTRAINT CK_OrderItems_UnitPrice
CHECK (UnitPrice >= 0);

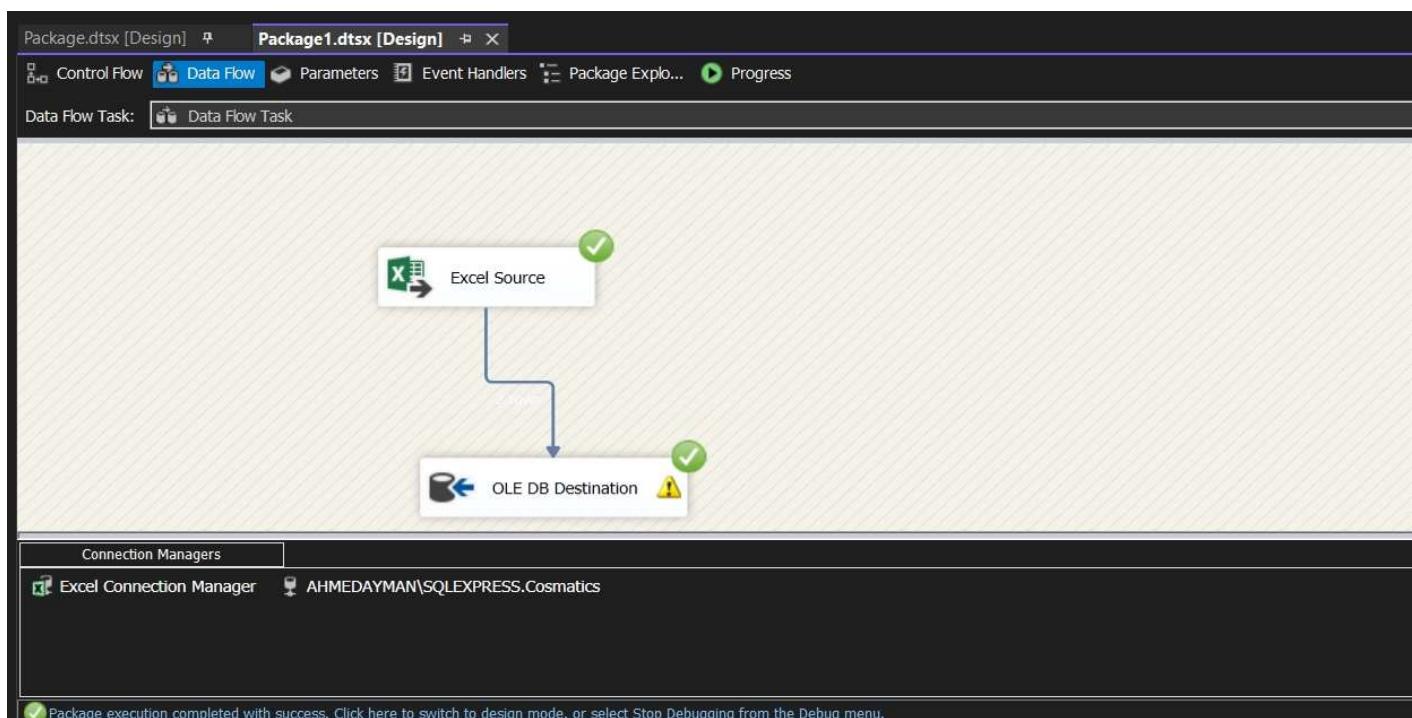
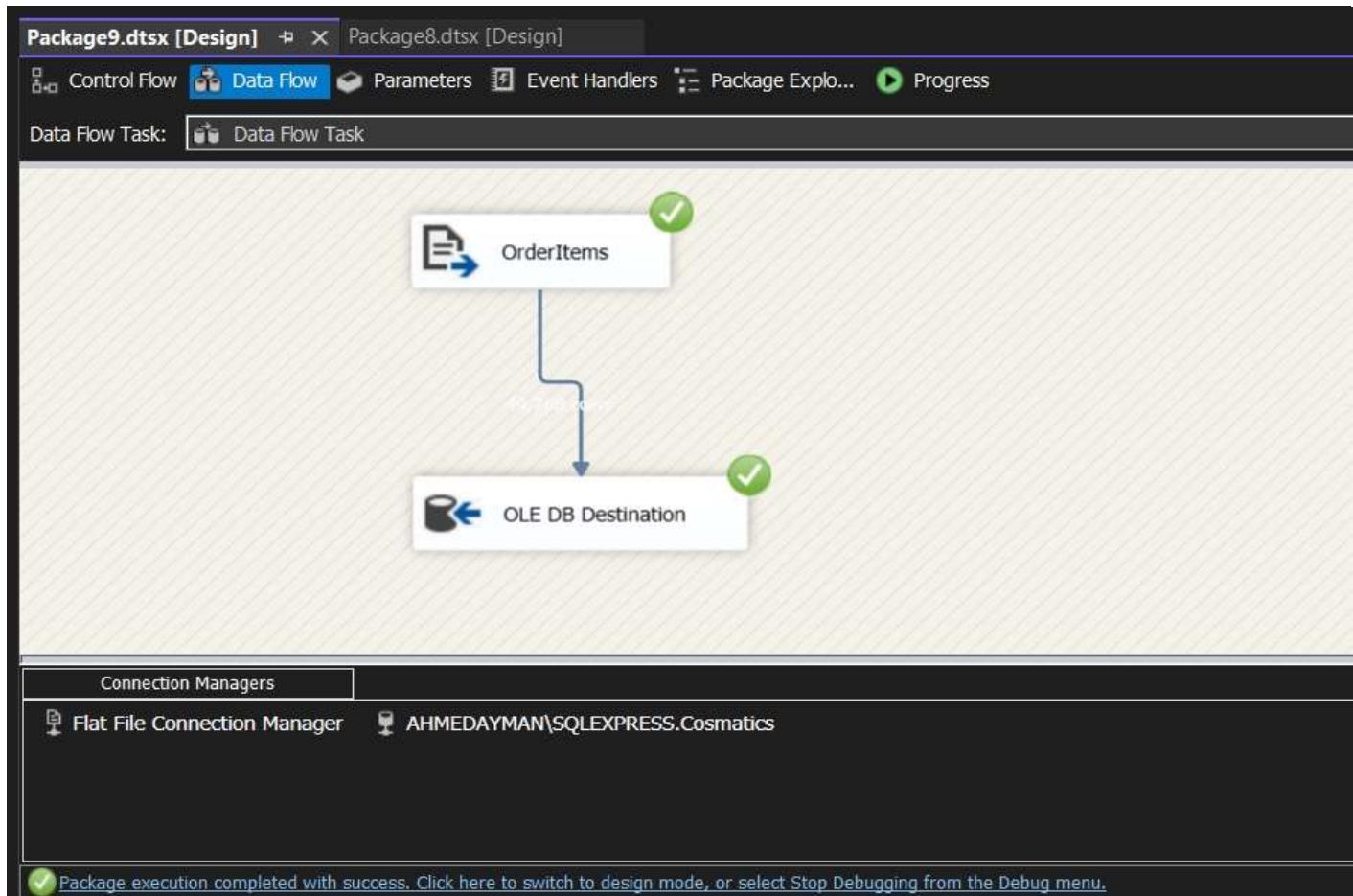
-- LineTotal calculation
ALTER TABLE OrderItems ADD CONSTRAINT CK_OrderItems_LineTotal
CHECK (ABS(LineTotal - (Quantity * UnitPrice)) < 0.01);
----- DEFAULT Values -----
-- Default order date to current date/time
ALTER TABLE [dbo].[Orders]
ADD CONSTRAINT DF_Orders_OrderDate
DEFAULT GETDATE() FOR OrderDate;

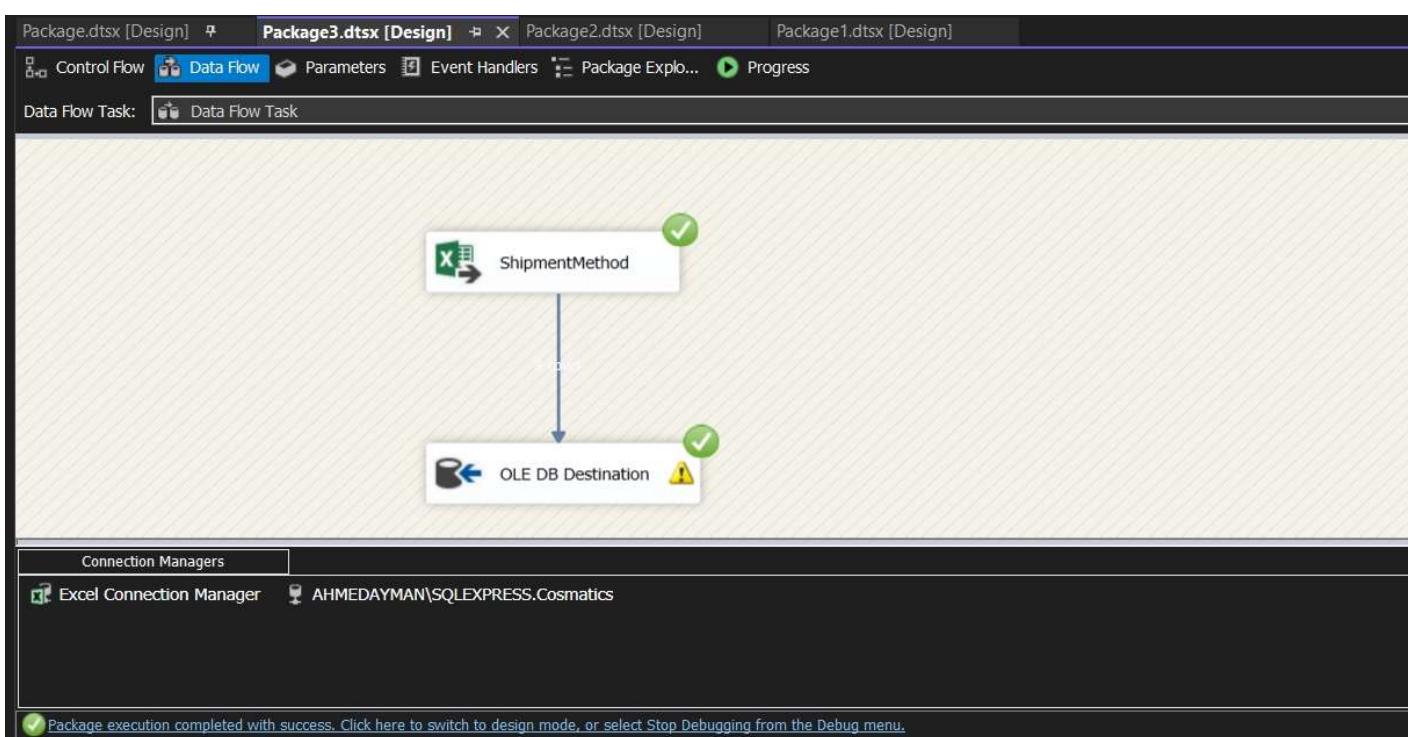
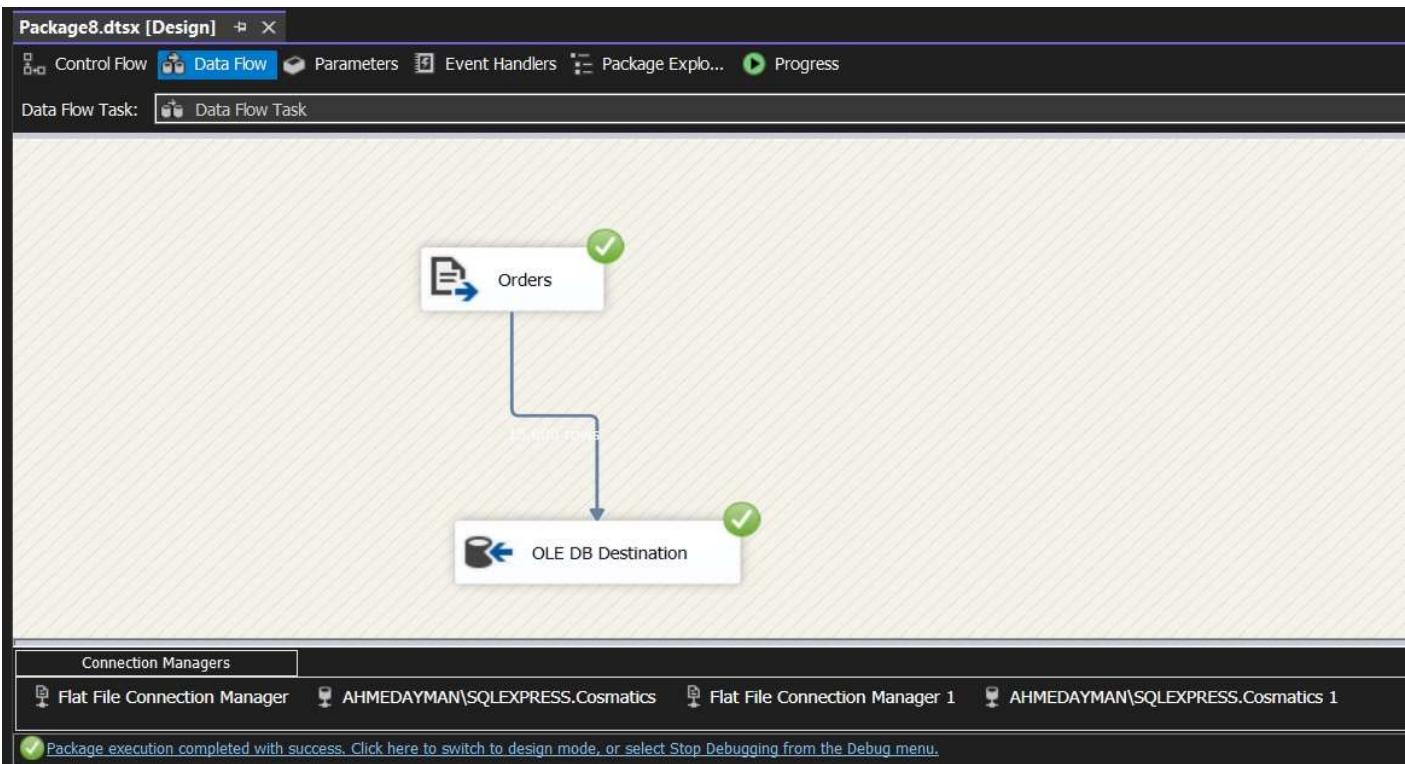
-- Default status to 'Pending'
ALTER TABLE [dbo].[Status]
ADD CONSTRAINT DF_Status_StatusType
DEFAULT 'Pending' FOR StatusType;

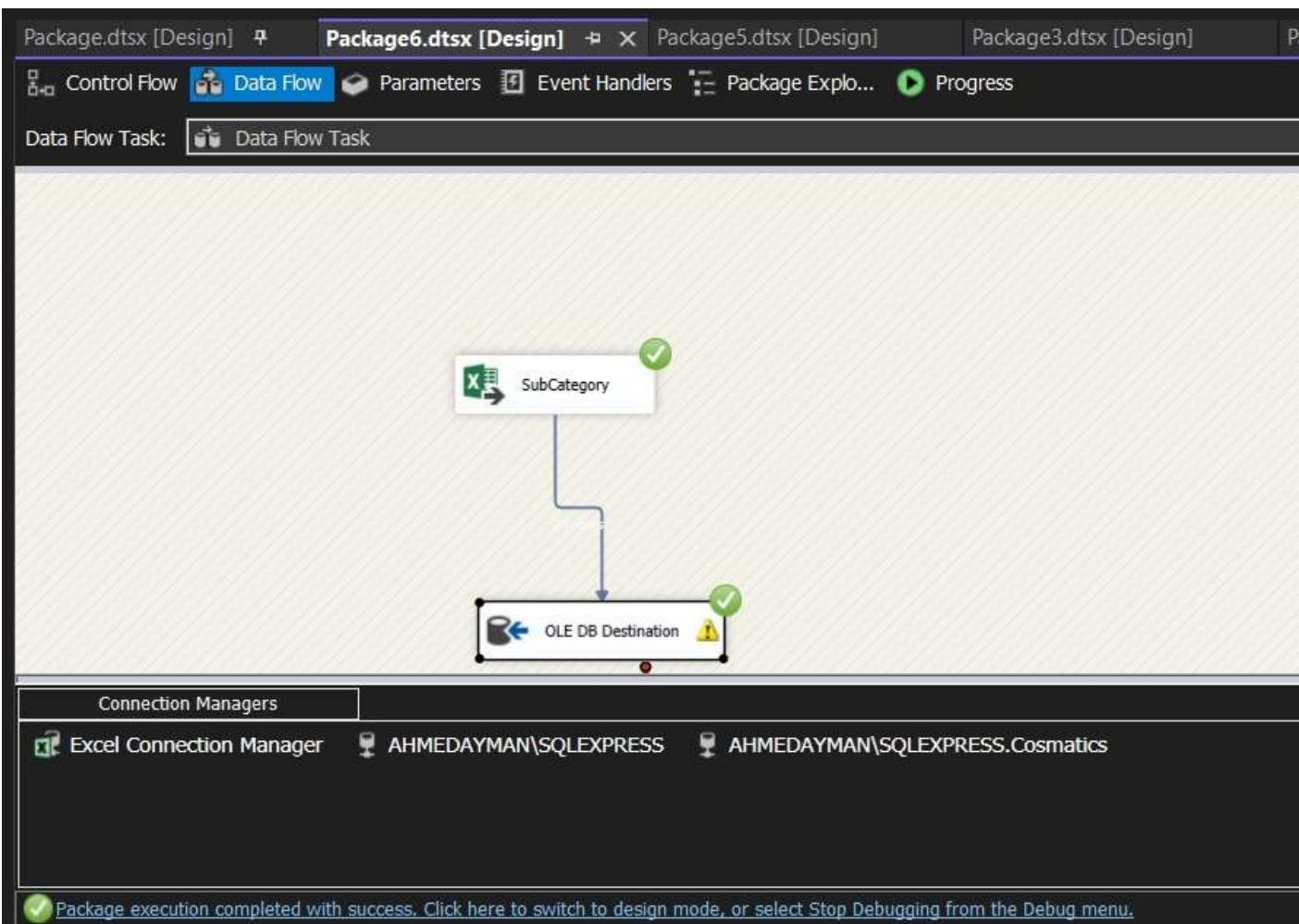
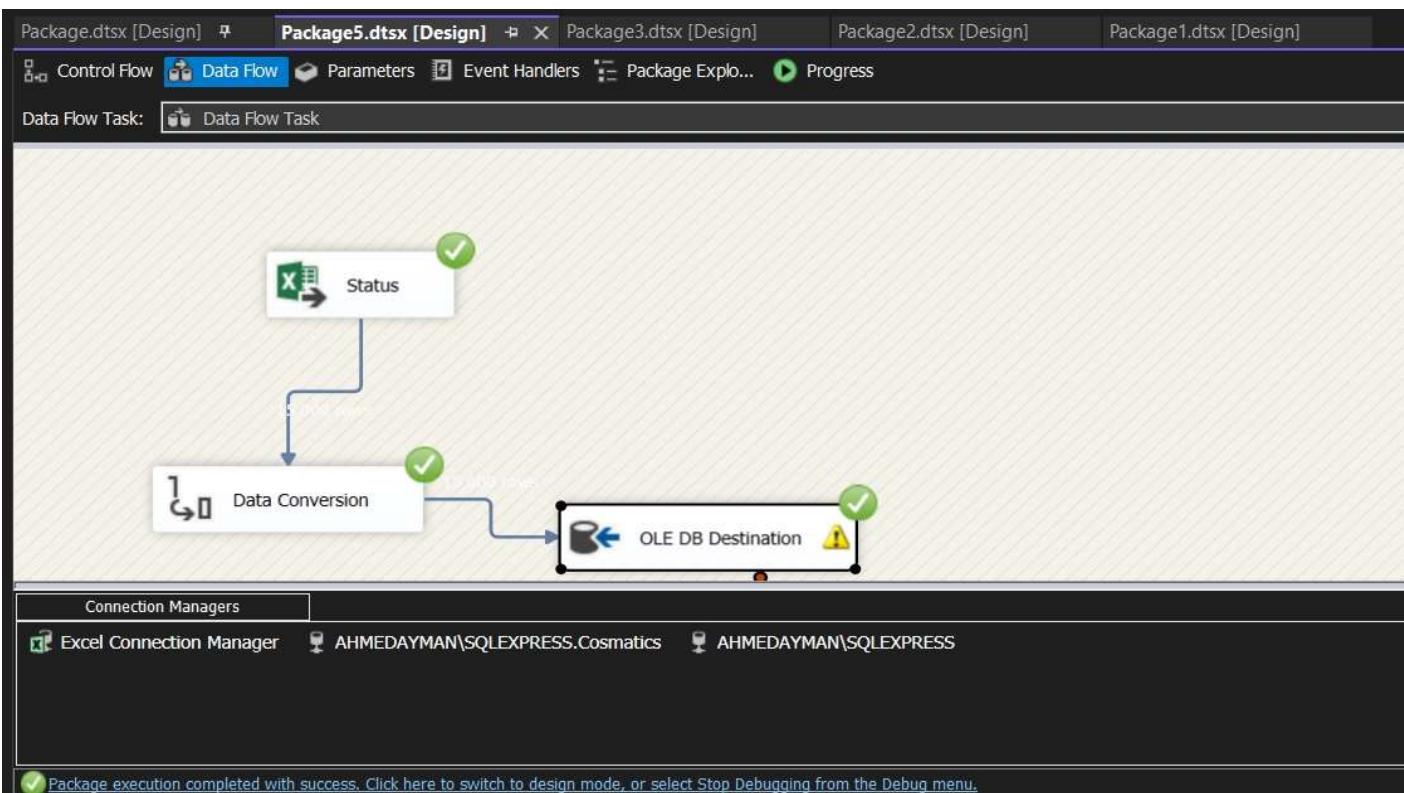
-- Default product rating to 0
ALTER TABLE [dbo].[Product]
ADD CONSTRAINT DF_Product_Rating
DEFAULT 0 FOR Rating;

-- Default number of reviews to 0
ALTER TABLE [dbo].[Product]
ADD CONSTRAINT DF_Product_NumberOfReviews
DEFAULT 0 FOR NumberOfReviews;
-- Gender Validation
ALTER TABLE [dbo].[Customer]
ADD CONSTRAINT CK_Customer_Gender
CHECK (
    Gender IN ('Male', 'Female')
```

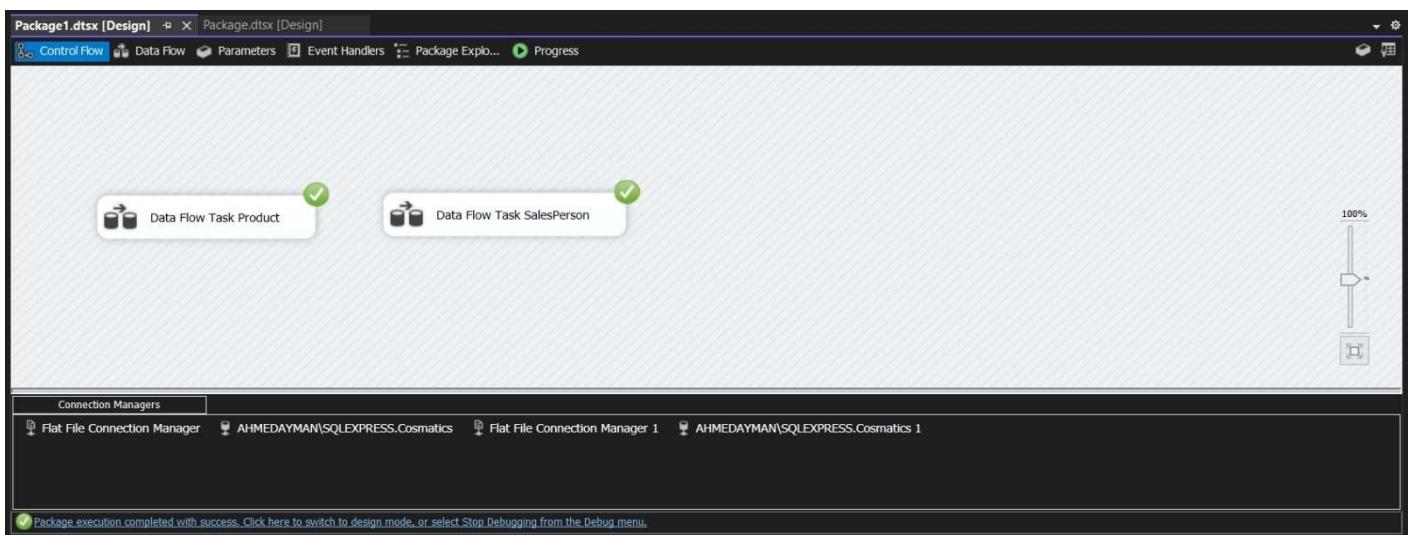
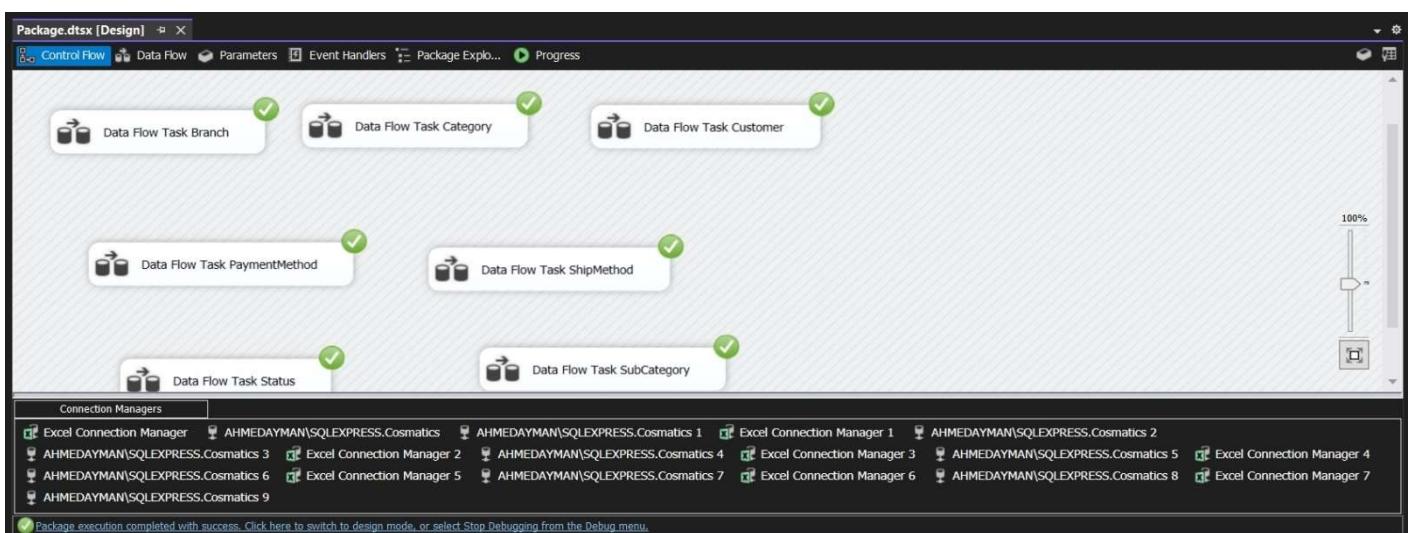
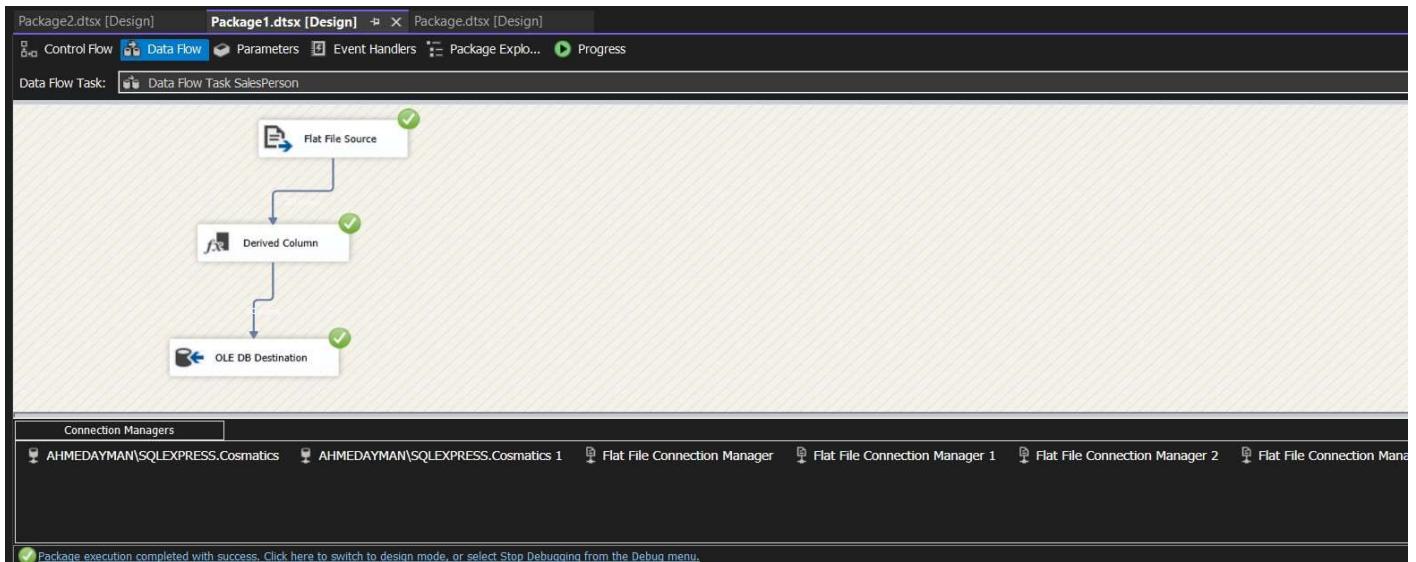
Appendix F: SQL Server Integration Services (SSIS) DB

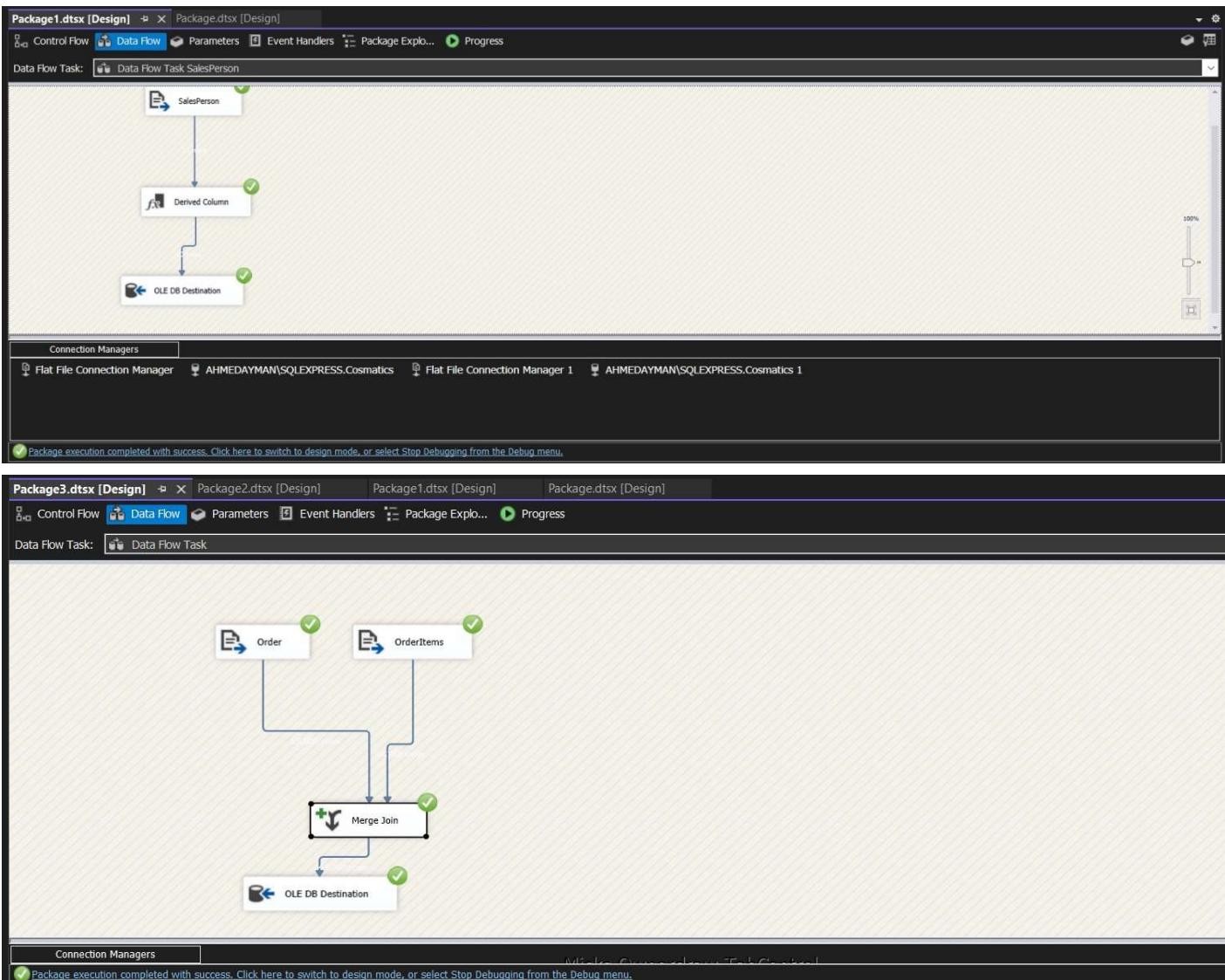






SQL Server Integration Services (SSIS) DWH





Appendix G SQL Server Reporting Services (SSRS)

File Edit View Git Project Build Debug Test Analyze Tools Extensions Window Help Search PREVIEW

Report Data | Customer-SSRS.rdl [Design] | SSRS-Sales Person.rdl [Design]

Customer

| Name | Gender | Age | Phone Number | Address | Email | Order |
|------------|----------|-------|---------------|-----------|---------|--------------|
| [FullName] | [Gender] | [Age] | [PhoneNumber] | [Address] | [Email] | [OrderCount] |

Row Groups: =(table1_Details_Group)

Column Groups:

Error List: 0 Errors, 0 Warnings, 0 Messages

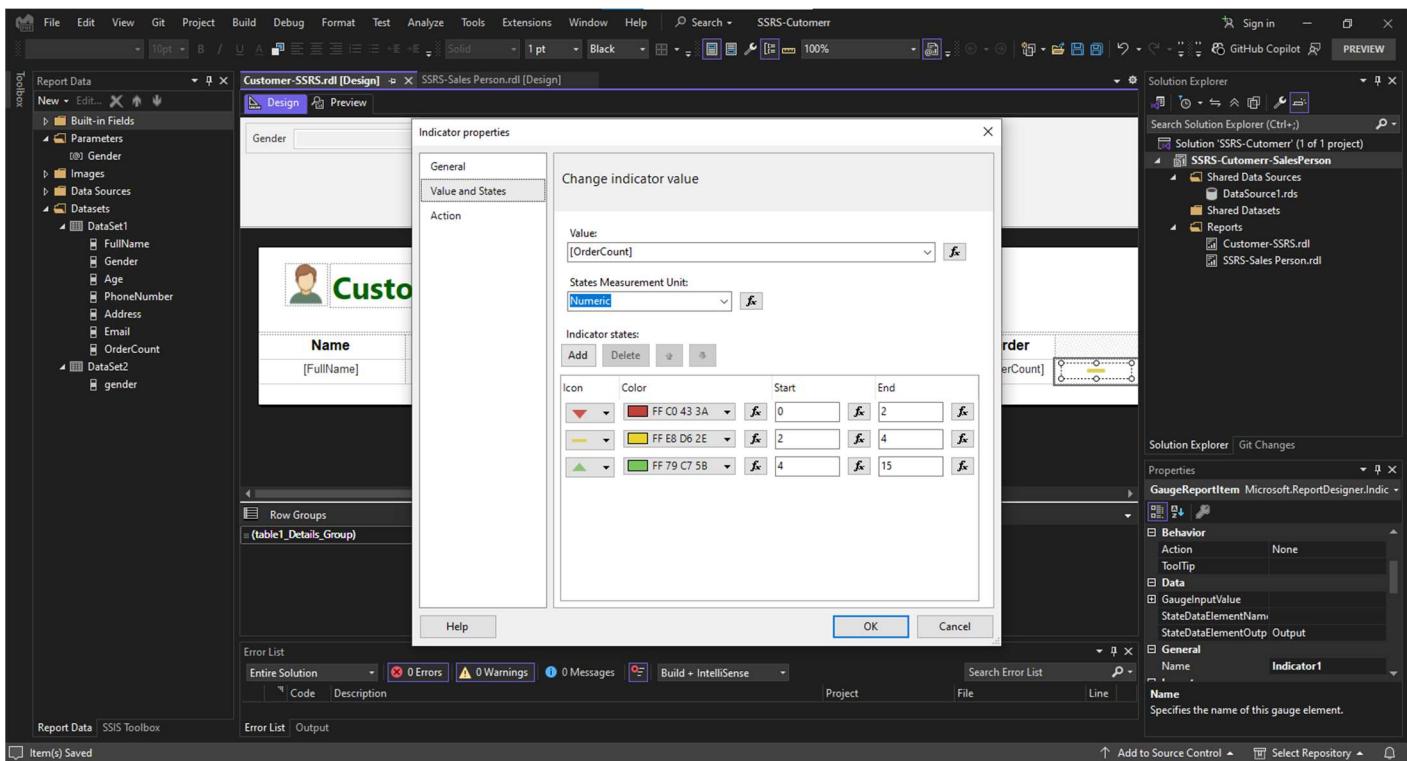
Solution Explorer

- SSRS-Customer-SalesPerson
 - Shared Data Sources
 - DataSource1.rds
 - Shared Datasets
 - Reports
 - Customer-SSRS.rdl
 - SSRS-Sales Person.rdl

Properties

- BorderColor: Black
- BorderStyle: None
- BorderWidth: 1pt
- Columns
- InteractiveSize: 8.5in, 11in
- Margins: 1in, 1in, 1in, 1in
- PageSize: 8.5in, 11in
- References
- Assemblies
- Assemblies

Specifies the assemblies that the report references.



| Name | Gender | Age | Phone Number | Address | Email | Order Count |
|----------------|--------|-----|--------------|----------|-------------------------|-------------|
| Daniel Moore | Male | 20 | 14071234567 | America | daniel.m@outlook.co.uk | 1 |
| Daniel Moore | Male | 20 | 14071234568 | America | daniel.m@post.com | 4 |
| Mansour Nasser | Male | 20 | 971506543211 | Emirates | mansour.n@proton.me | 5 |
| Mansour Nasser | Male | 20 | 971506543210 | Emirates | mansour.n@t-online.de | 7 |
| Samuel Wilson | Male | 20 | 19179876544 | America | samuel.w@mail.ae | 4 |
| Daniel Moore | Male | 21 | 14071234569 | America | daniel.m@protonmail.com | 6 |
| Daniel Moore | Male | 21 | 14071234572 | America | daniel.m@protonmail.com | 5 |
| Jack Adams | Male | 21 | 447456789012 | England | jack.a@outlook.co.uk | 4 |
| Jack Adams | Male | 21 | 447456789013 | England | jack.a@post.com | 5 |
| Mansour Nasser | Male | 21 | 971506543212 | Emirates | mansour.n@aol.com | 5 |
| Mansour Nasser | Male | 21 | 971506543215 | Emirates | mansour.n@aol.com | 4 |
| Omar Ahmed | Male | 21 | 201123456789 | Egypt | omar.a@mail.com | 3 |
| Samir Lutfi | Male | 24 | 14070876546 | America | samir.l@outlook.com | 1 |

8 Customer Report

Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Report Product

- Shared Data Sources
 - DataSource1.rds
 - DataSource2.rds
 - DataSource3.rds
 - DataSource4.rds
- Shared Datasets
- Reports
 - product2.rdl

Properties

Report

- BorderColor: Black
- BorderStyle: None
- BorderWidth: 1pt
- Columns
- InteractiveSize: 8.5in, 11in
- Margins: 1in, 1in, 1in, 1in
- PageSize: 8.5in, 11in
- References
- Assemblies

Assemblies

Specifies the assemblies that the report references.

Selected Category Name

Expression

Set expression for: Value

```
=SWITCH(  
    Fields!Rating.Value >= 4.5, "★★★★★",  
    Fields!Rating.Value >= 4.0, "★★★★*",  
    Fields!Rating.Value >= 3.0, "★★★*",  
    Fields!Rating.Value >= 2.0, "★★*",  
    Fields!Rating.Value >= 1.0, "*",  
    TRUE, "X"  
)
```

100 % No issues found

Category:

- Constants
- Built-in Fields
- Parameters
- Fields (DataSet1)
- Datasets
- Variables
- Operators
- Common Functions

Item: <All>

No constants are available for this property.

Help OK Cancel

Selected Category Name: Makeup [View Report](#)

1 of 2 | Print | Back | Next | 100% | Grid | List

Product

| Brand | ProductID | Product Name | Main_Ingredient | Rating | |
|-------------------------|-----------|----------------------|-----------------|--------|--|
| Anastasia Beverly Hills | | | | | |
| | 22 | Divine Foundation | Retinol | 2.3 | |
| | 54 | Ultra Serum | Salicylic Acid | 2.5 | |
| | 230 | Magic Cleanser | Shea Butter | 3.8 | |
| | 245 | Ultra Makeup Remover | Salicylic Acid | 2.2 | |
| | 301 | Ultra CC Cream | Hyaluronic Acid | 4.5 | |
| | 305 | Super Blush | Retinol | 3.4 | |
| | 322 | Divine Highlighter | Shea Butter | 1.6 | |
| | 453 | Magic Lip Liner | Retinol | 1.9 | |
| | 492 | Perfect Blush | Retinol | 1.9 | |
| | 518 | Perfect Contour | Vitamin C | 4.4 | |
| | 521 | Ultra Mascara | Shea Butter | 1.1 | |
| | 570 | Ultra Serum | Glycerin | 3.1 | |

9 Product Report (Makeup)

Selected Category Name: SkinCare [View Report](#)

1 of 2 | Print | Back | Next | 100% | Grid | List

Product

| Brand | ProductID | Product Name | Main_Ingredient | Rating | |
|-------------------------|-----------|----------------------|-----------------|--------|--|
| Anastasia Beverly Hills | | | | | |
| | 73 | Super Bronzer | Retinol | 4.8 | |
| | 93 | Divine Concealer | Glycerin | 1.7 | |
| | 185 | Super Makeup Remover | Retinol | 1.1 | |
| | 556 | Divine Mascara | Glycerin | 3.2 | |
| | 685 | Divine BB Cream | Hyaluronic Acid | 1.5 | |
| | 802 | Ultra Makeup Remover | Shea Butter | 3.1 | |
| | 876 | Super CC Cream | Hyaluronic Acid | 1.7 | |
| | 1179 | Magic Concealer | Hyaluronic Acid | 3.3 | |
| | 1421 | Super Face Mask | Retinol | 4.7 | |
| | 1609 | Ultra Eyeliner | Retinol | 1.4 | |
| | 1806 | Super Primer | Glycerin | 1.4 | |
| | 1826 | Perfect Serum | Retinol | 2.6 | |

10 Product Report (SkinCare)

Screenshot of the SSRS Report Designer in Visual Studio. The report is titled "Customer-SSRS.rdl [Design]". The main pane shows a table with columns: Sales Person ID, FullName, Sales Quota, Sales Last Year 2022, Hiring Date, and Branch. A parameter "location" is defined at the top. The Properties panel on the right shows settings for a table element.

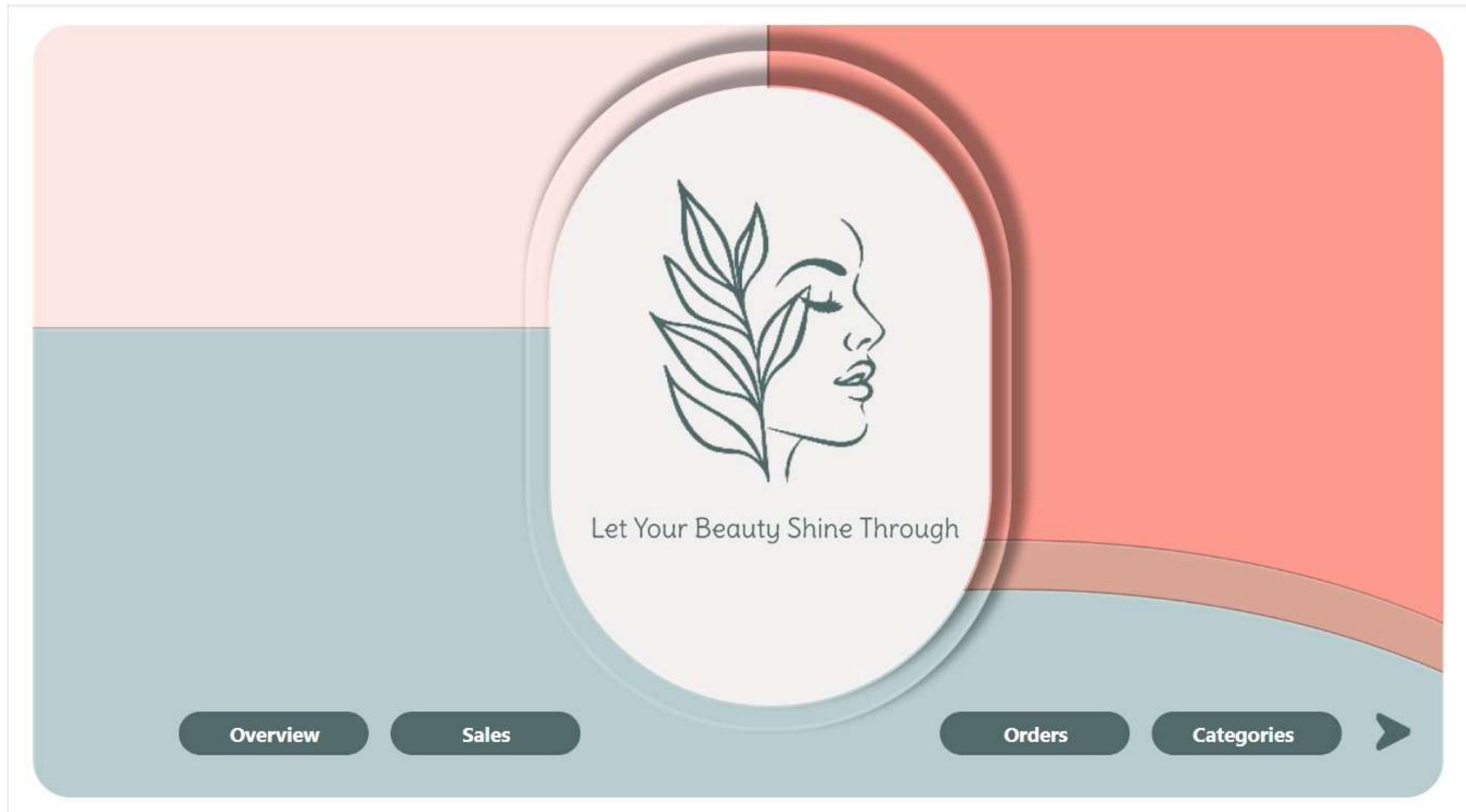
| Sales Person ID | FullName | Sales Quota | Sales Last Year 2022 | Hiring Date | Branch |
|-----------------|------------|--------------|----------------------|--------------|------------|
| [SalesPersonID] | [FullName] | [SalesQuota] | [SalesLastYear_2022] | [HiringDate] | [Location] |

Screenshot of the SSRS Report Designer in Visual Studio. The report is titled "Customer-SSRS.rdl [Design]". The main pane shows a table with the same columns as the previous screenshot, but the "Branch" column now displays the value "Emirates, England, Egypt, Au". The Properties panel on the right shows settings for a table element.

| Sales Person ID | FullName | Sales Quota | Sales Last Year 2022 | Hiring Date | Branch |
|-----------------|-------------------|-------------|----------------------|------------------------|----------|
| 1 | Mohamed Hamed | 130400 | 116592 | 3/17/2021 12:00:00 AM | Emirates |
| 2 | Layla Ali | 153600 | 137008 | 6/27/2021 12:00:00 AM | Emirates |
| 3 | Rashed Hussien | 81600 | 130104 | 10/8/2019 12:00:00 AM | Emirates |
| 4 | Khalid Al-rashidi | 102400 | 83368 | 1/18/2020 12:00:00 AM | Emirates |
| 5 | Aisha Al-mansouri | 141600 | 144968 | 4/30/2018 12:00:00 AM | Emirates |
| 6 | Salem Mostafa | 132000 | 125408 | 8/10/2021 12:00:00 AM | Emirates |
| 7 | Edmond Feest | 158400 | 140040 | 11/20/2020 12:00:00 AM | England |
| 8 | Rick Beahan | 98400 | 86360 | 3/2/2020 12:00:00 AM | England |
| 9 | Rachel King | 104000 | 90904 | 6/13/2019 12:00:00 AM | England |
| 10 | Neil Pfannerstill | 104000 | 127640 | 9/23/2018 12:00:00 AM | England |
| 11 | Nathaniel Marks | 123200 | 126072 | 1/3/2018 12:00:00 AM | England |
| 12 | Sandy Carter | 159200 | 132288 | 4/15/2017 12:00:00 AM | England |
| 13 | Karim Shehab | 129600 | 129136 | 7/26/2016 12:00:00 AM | Egypt |
| 14 | Nour El-Adawy | 131200 | 105728 | 11/6/2015 12:00:00 AM | Egypt |
| 15 | Rodina Mohamed | 148000 | 110288 | 2/16/2015 12:00:00 AM | Egypt |
| 16 | Sara ALi | 90400 | 153128 | 5/29/2018 12:00:00 AM | Egypt |

11 Salesperson Report

Appendix H Dashboards:



Dashboard 1 HomePage

No. Orders

15K

No. Customers

3538

Total Due

\$7.8M

Total Quantity

89.8K

Branches

5

No. Sales Person

30



Overview



Dashboard 2 Overview



Sales

Year

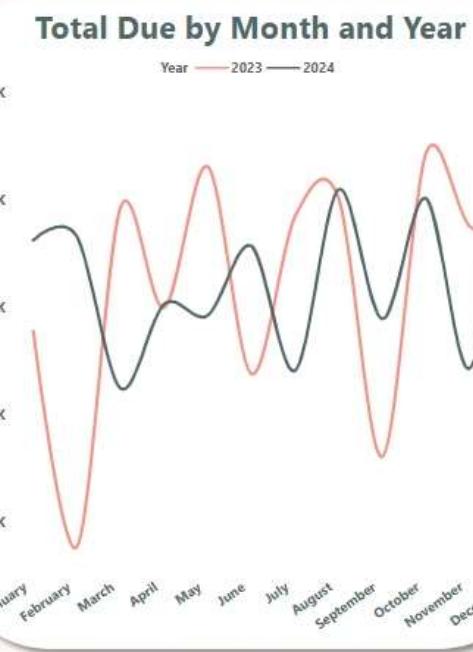
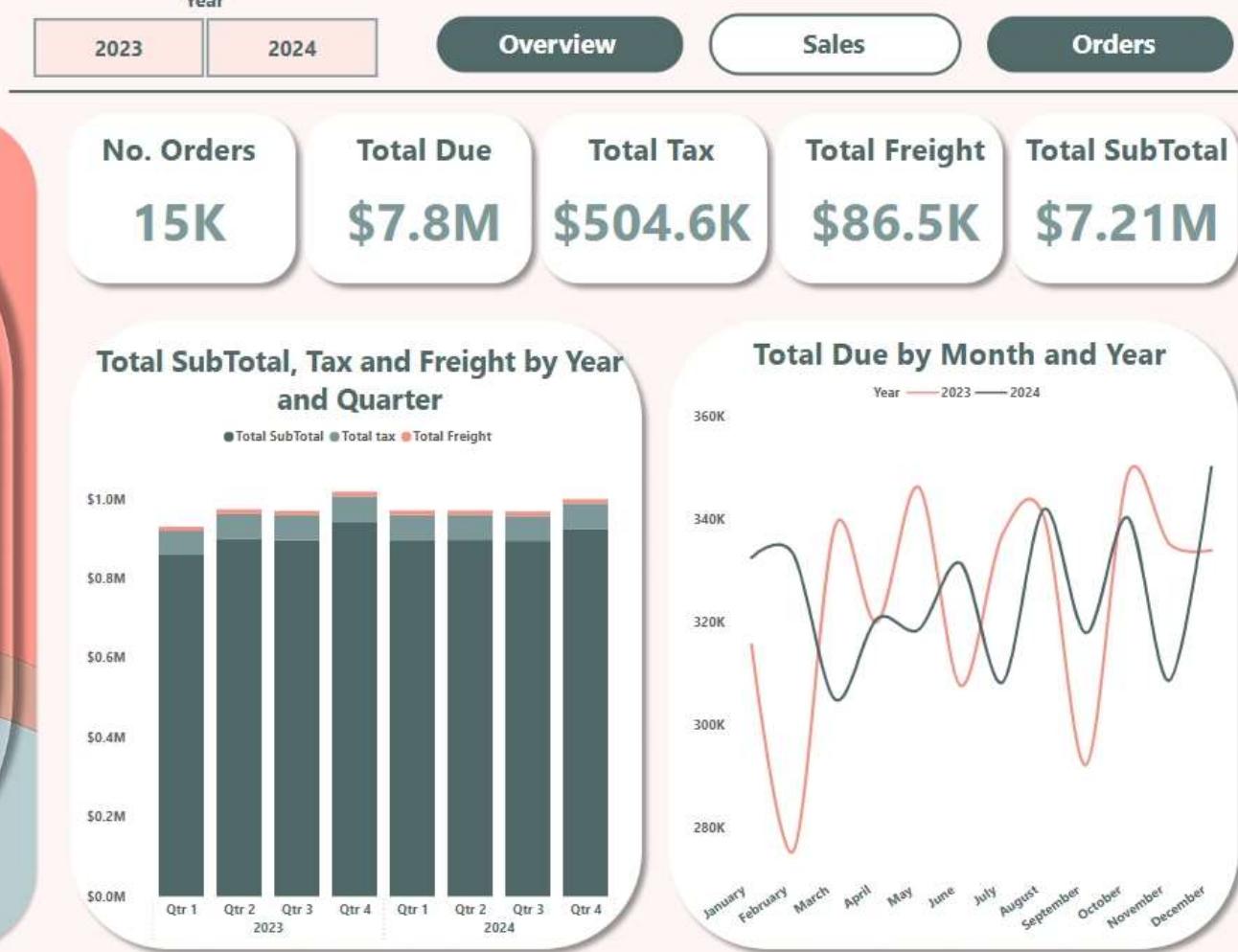
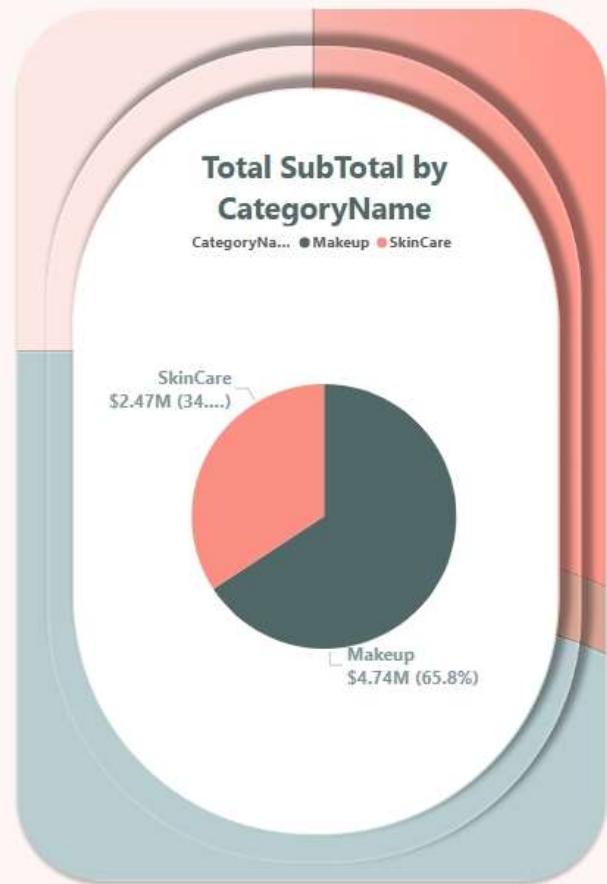
2023

2024

Overview

Sales

Orders



Dashboard 3 Sales



Orders

Year

2023

2024

Sales

Orders

Categories

No. Orders

15K

Total Quantity

89.8K

Average Order Value

519.85

Canceled Orders

299

% Canceled Orders

1.99%

No. Orders by PaymentType

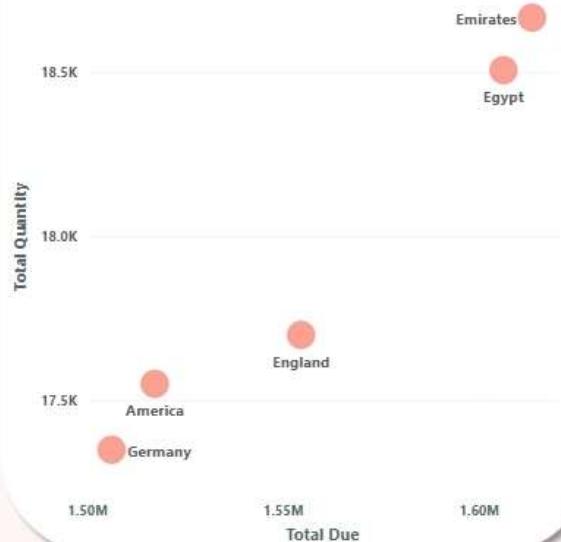
7.6K

7.4K

Credit

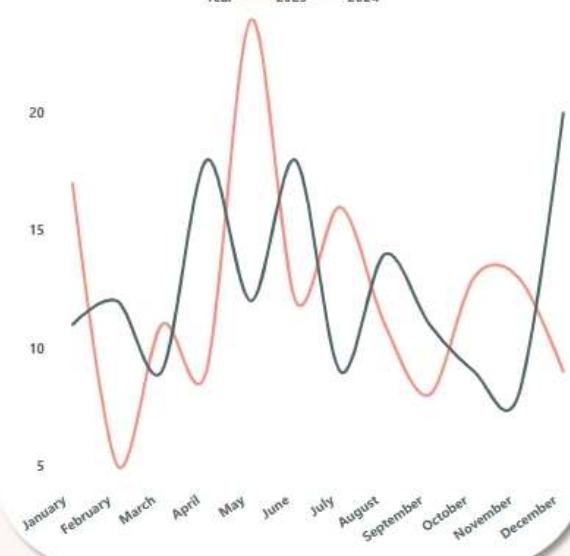
Cash

Total Due and Total Quantity by Location



No.Canceled Orders by Month and Year

Year — 2023 — 2024



Dashboard 4 Orders



Categories

Year

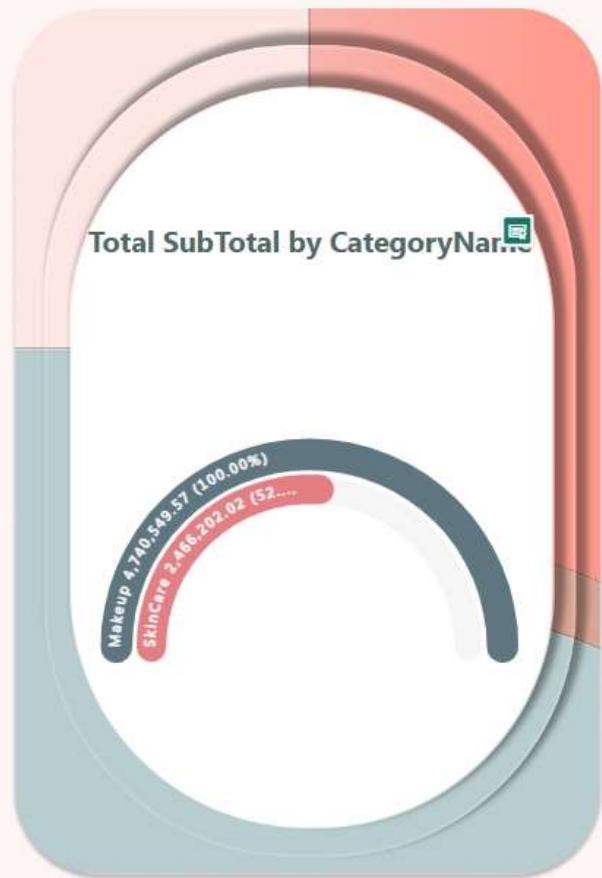
2023

2024

Orders

Categories

Makeup



Total Due

7.80M

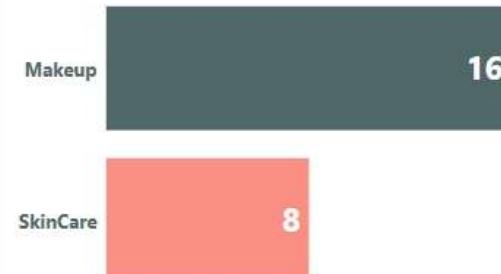
No.Orders

15K

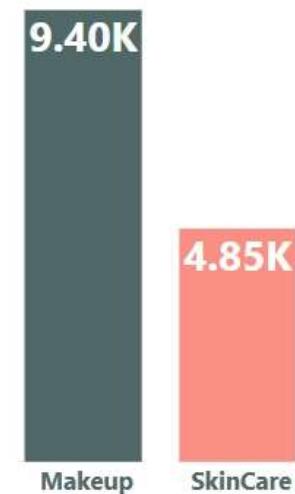
No.SubCategories

24

No.Subcategories by CategoryName



No.Sold Products by Categories



Dashboard 5 Categories



Makeup

Year

2023

2024

Categories

Makeup

Skincare



Makeup Orders

13.47K

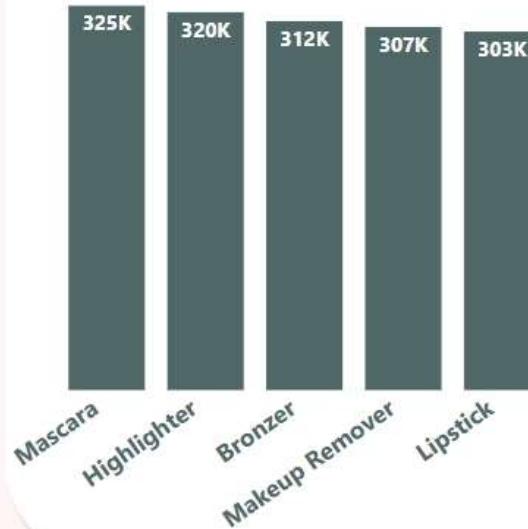
No. SubCategories

16

Makeup Sales

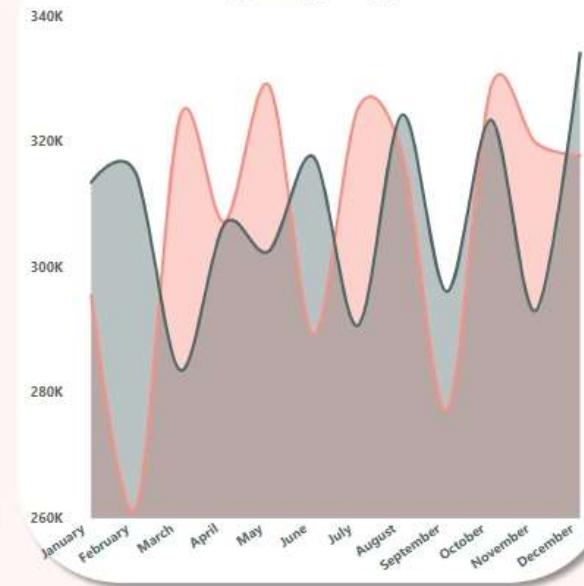
4.74M

Makeup SubCategory Sales



Total Due by Month and Year

Year — 2023 — 2024



Dashboard 6 Makeup



SkinCare

Year

2023

2024

Makeup

Skincare

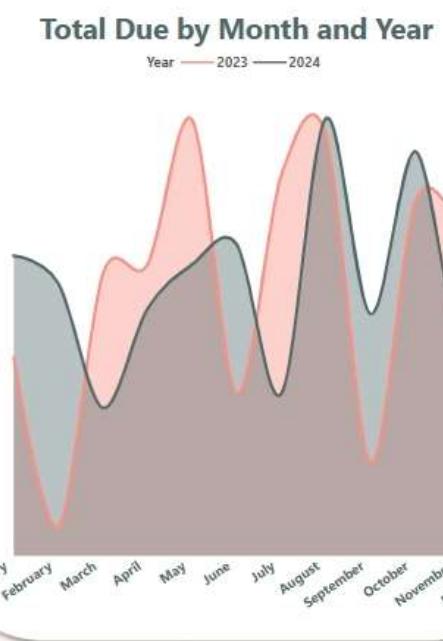
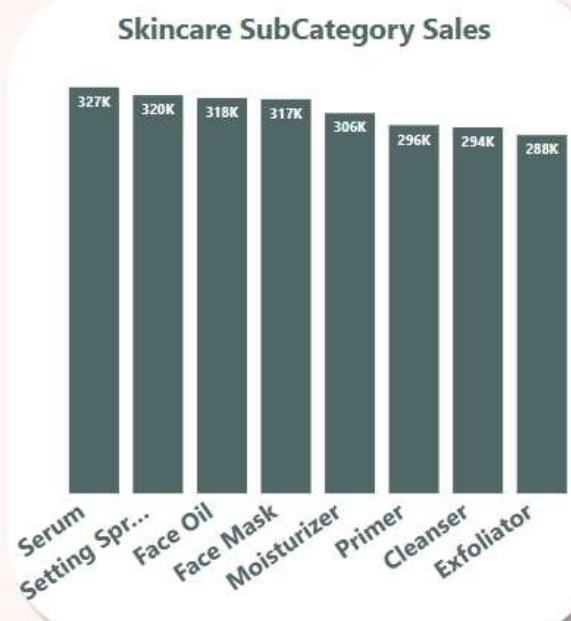
Skin Type



SkinCare Orders
9884

No. SubCategories
8

SkinCare Sales
2.47M



Dashboard 7 Skincare



SkinType

Year

2023

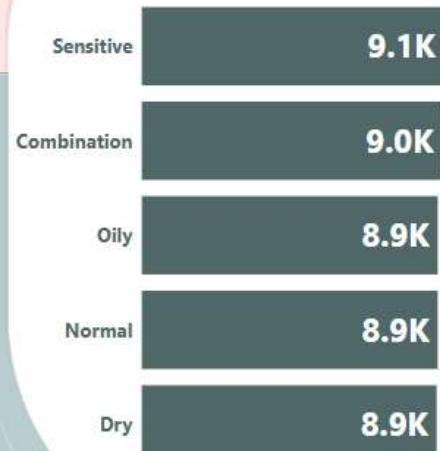
2024

Skincare

Skin Type

Product

No.Orders Items by SkinType



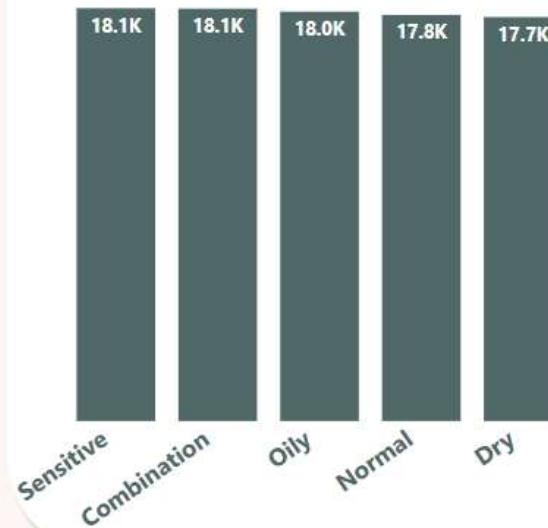
No.Products

15K

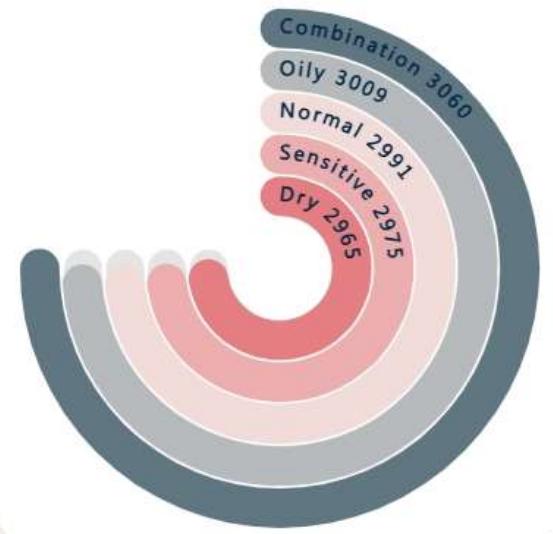
No.SkinType

5

Total Quantity Sold by SkinType



No. Products by Skin Type



Dashboard 8 Skin Type



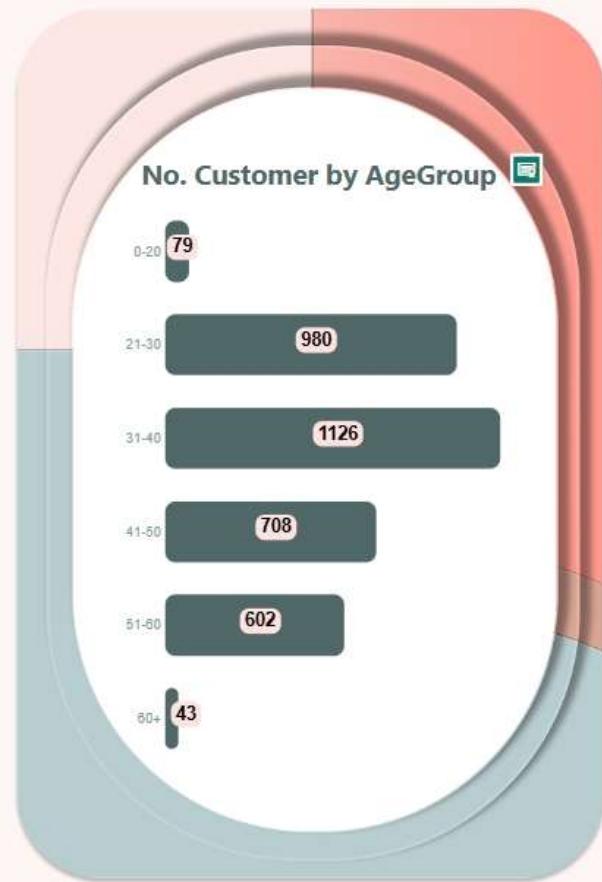
Customer



Product

Customer

Branch



No. Customers

3538

Avg. Customer Age

38

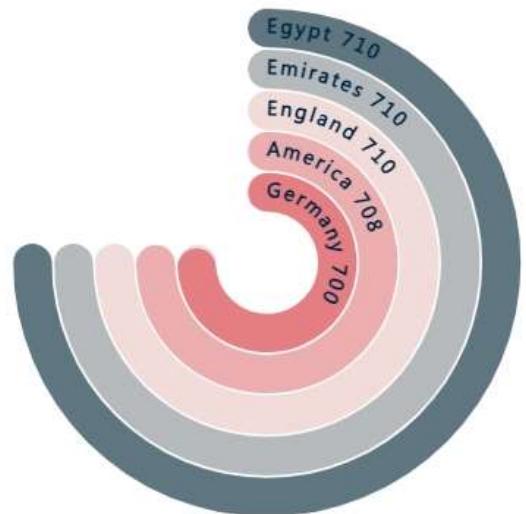
No. Cancelled by
Customers

286

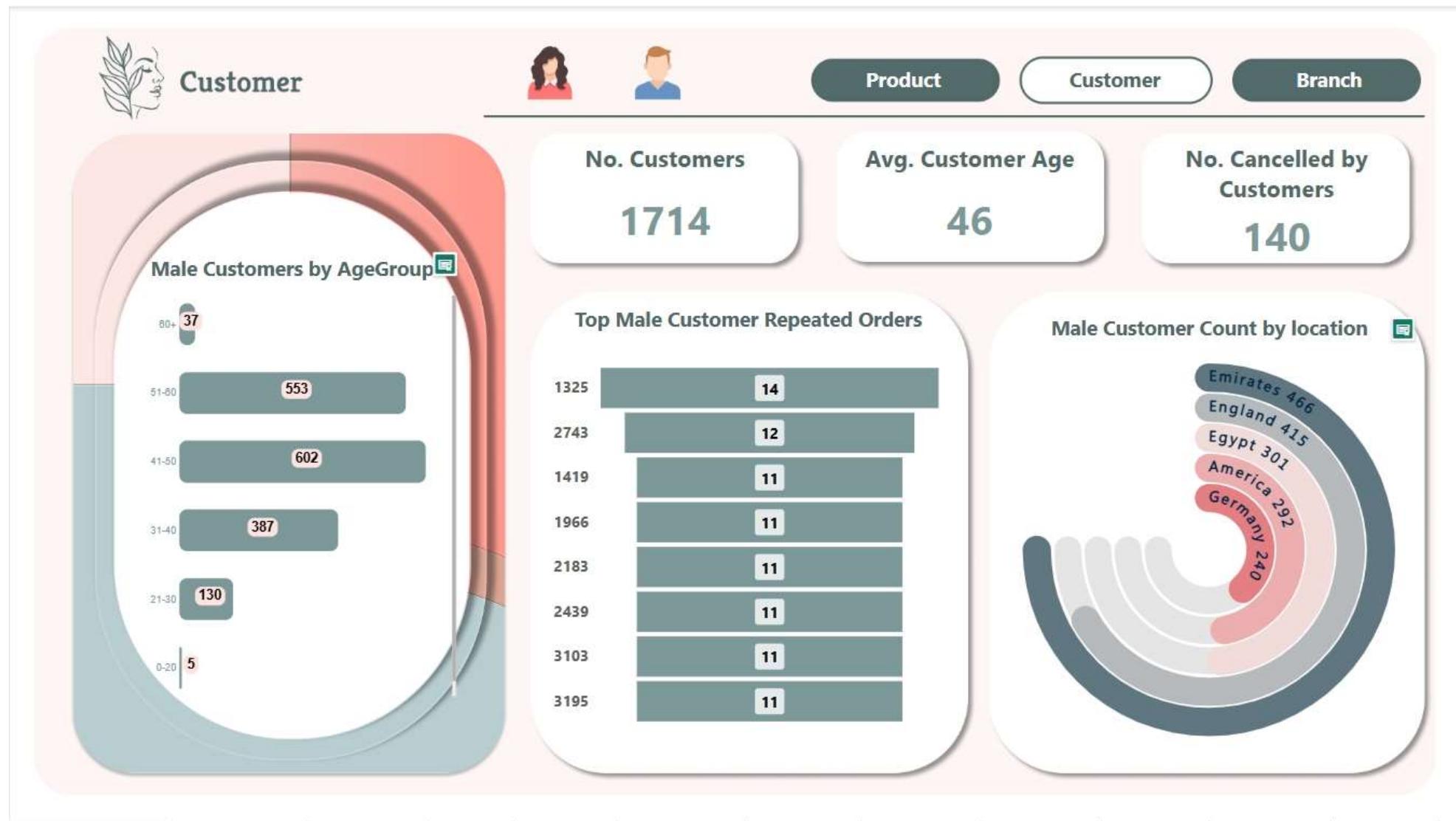
Top Customers Repeated Orders

| | |
|------|----|
| 1325 | 14 |
| 2428 | 12 |
| 2507 | 14 |
| 2743 | 12 |

Customer Count by location



Dashboard 9 Customer



Dashboard 10 Males Customers



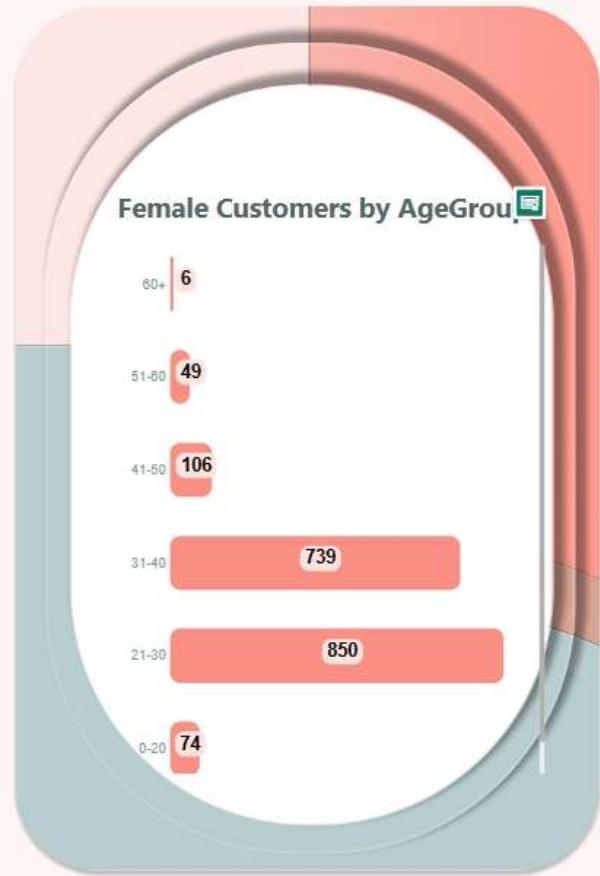
Customer



Product

Customer

Branch



No. Customers

1824

Avg. Customer Age

31

No. Cancelled by
Customers

146

Top Female Repeated Orders

| | |
|------|----|
| 2507 | 14 |
| 2428 | 12 |
| 143 | 11 |
| 270 | 11 |
| 485 | 11 |
| 843 | 11 |
| 2394 | 11 |
| 2713 | 11 |

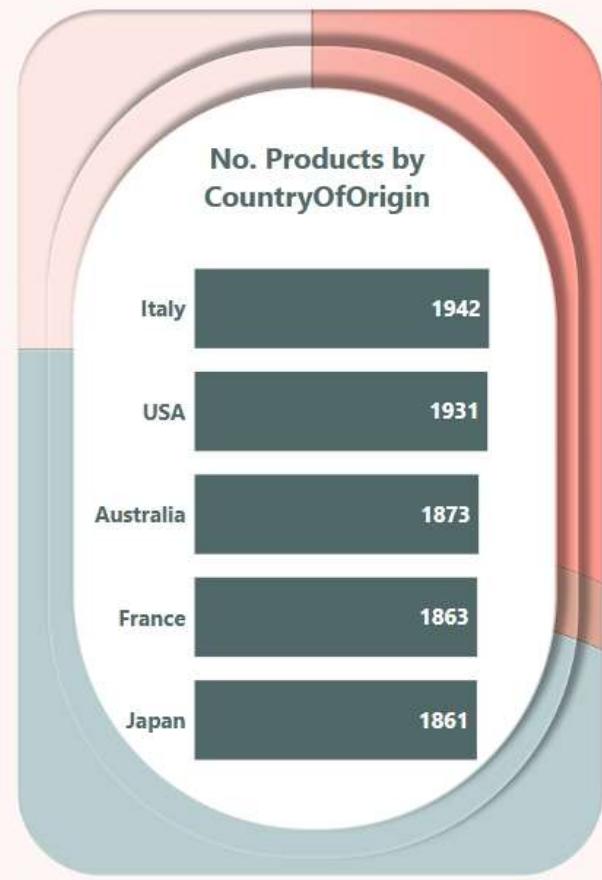
Female Customers by location



Dashboard 11 Female Customers



Product



No. Products

15K

No. Products sold

14.2K

Total Quantity Sold

90K

Avg Price

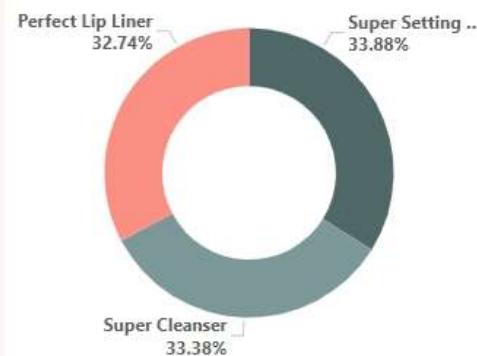
86.87

Avg Rating

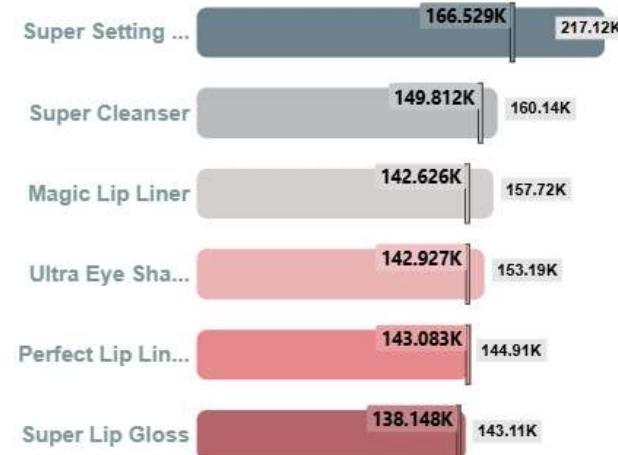
3.00

Top Product by Total Due

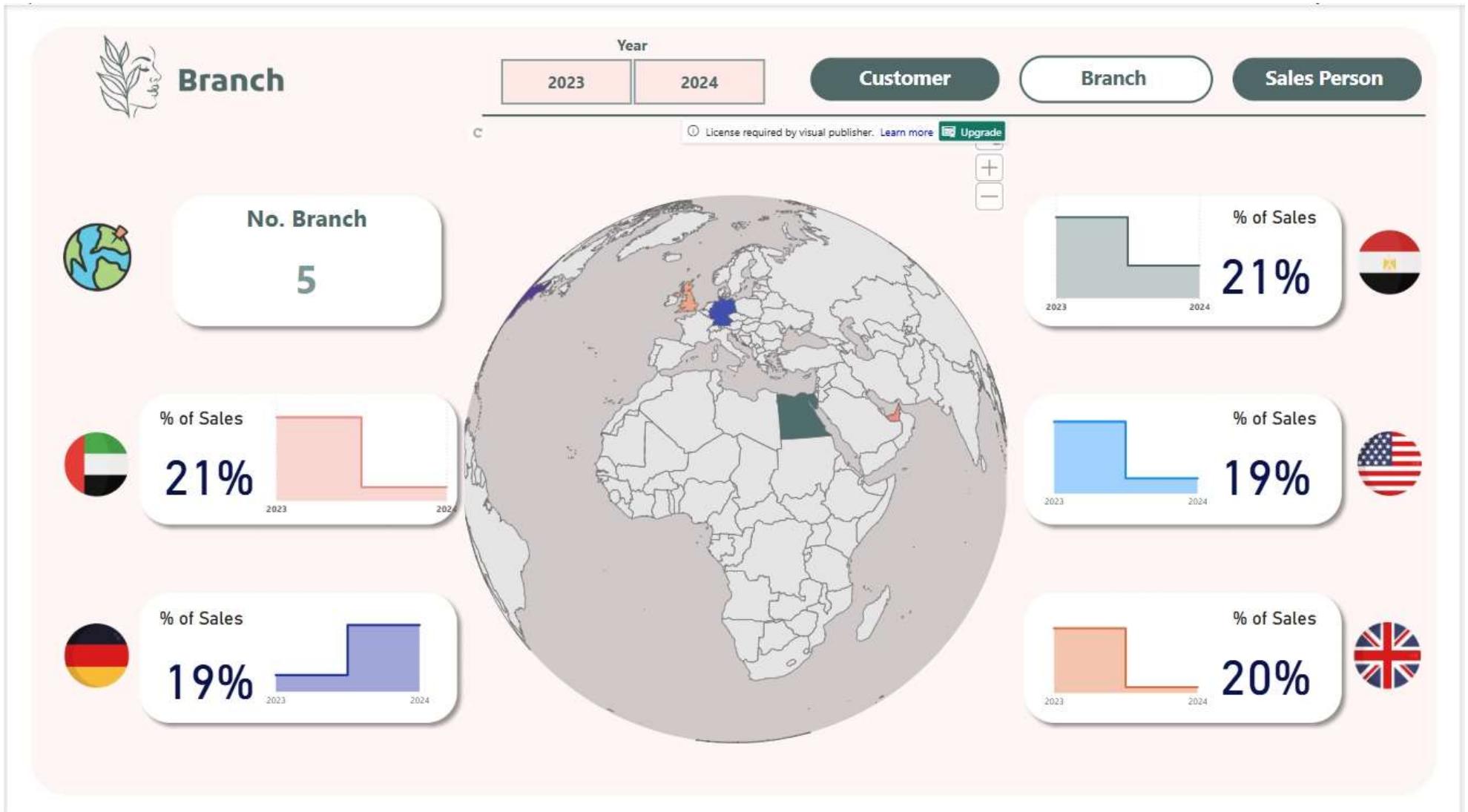
● Super Setting Spray ● Super Cleanser ● Perfect Lip Liner



Forecast Sales 2025 (Product) and Sales 2024 (Product) by ProductName



Dashboard 12 Product





Sales Person

Year

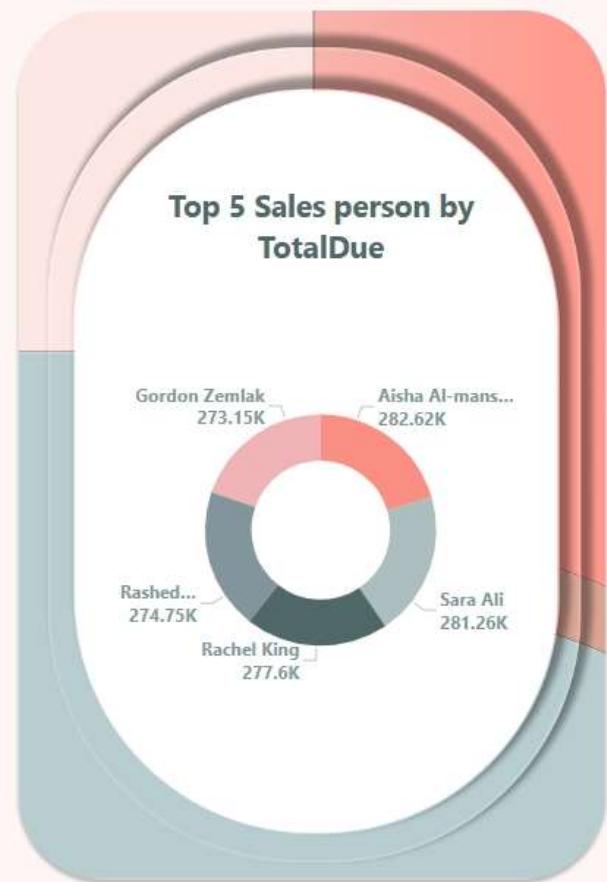
2023

2024

Branch

Sales Person

ShipMethod



No. Sales Person

30

Target

3.68M

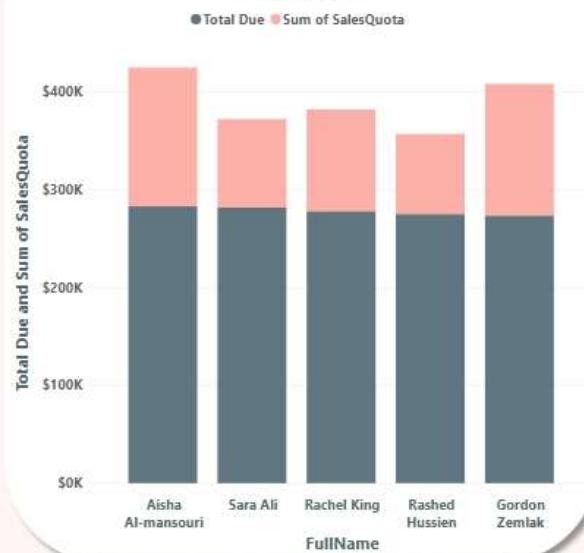
% Target Achievement 2023

97.56%

% Target Achievement 2024

98.02%

Total Due and Sum of SalesQuota by FullName



Sales Quota by FullName



Dashboard 14 Salesperson



Shipment Method

Year

2023

2024

SalesPerson

ShipMethod

Brand

No. Orders

15.0K

Total Freight

\$86.5K

No. Online Orders

12.76K

No. Pickup Orders

2.24K

% Online Orders

85%



Pickup

0 \$

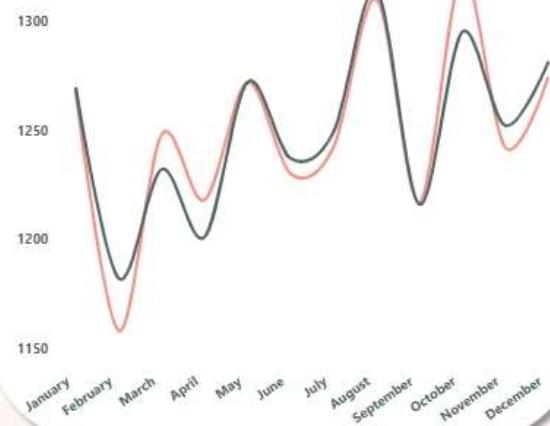
Standard Shipping

5 \$

Express Shipping

15 \$

Orders by Order Date and Orders by Ship Date by Month

— Orders by Order Date — Orders by Ship Date

Dashboard 15 Ship Method



Brand

Year

2023

2024

ShipMethod

Brand

Top Brand



No.of
Brands

40

Most Expensive Brand

Make Up For
Ever

Top Country

USA

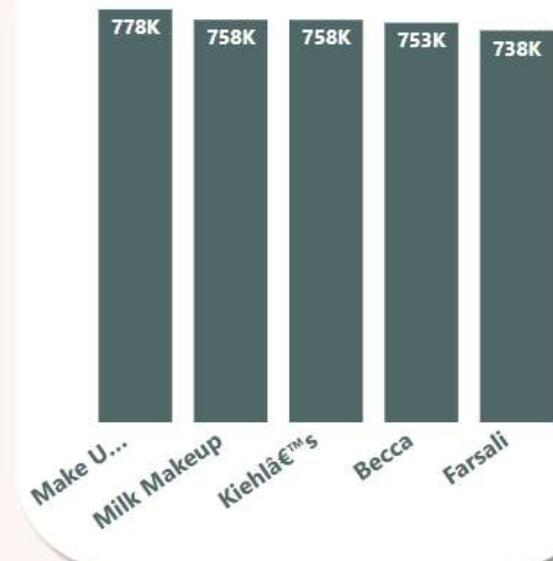
Brand with Most Products

Milk Makeup

Sum of Quantity Sold by Brand

| | |
|------------------|------|
| RMS Beauty | 2.4K |
| Yves Saint La... | 2.4K |
| Sisley | 2.3K |
| Urban Decay | 2.3K |
| Rare Beauty | 2.2K |
| Too Faced | 2.2K |
| Tatcha | 2.2K |
| Shiseido | 2.2K |
| Perricone MD | 2.1K |
| Tarte | 2.1K |

Top 5 Brand by Total Due



Dashboard 16 Brand



Top Brand

Year

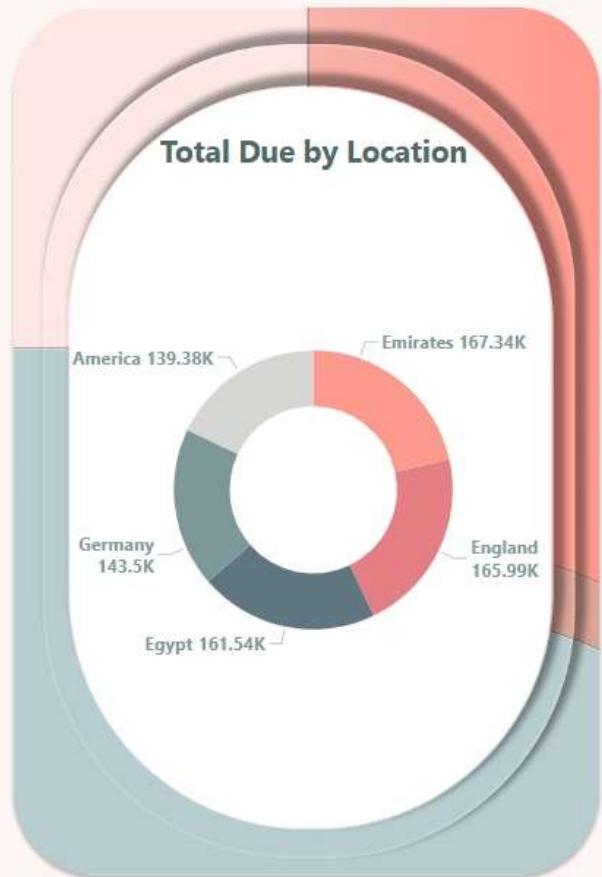
2023

2024

Brand

Top Brand

Second Brand



Top Brand Name

Make Up For Ever

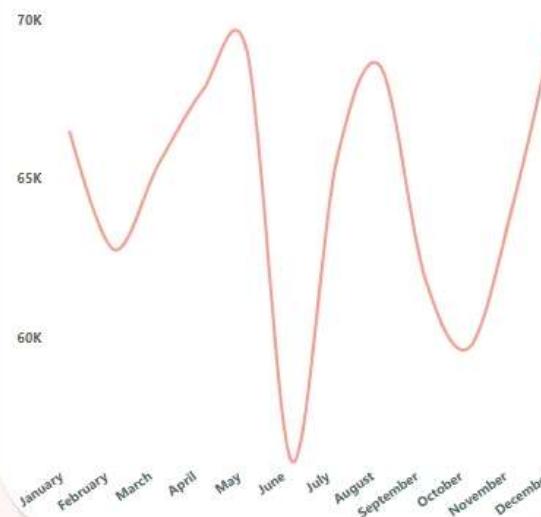
Total Due for Top Brand

778K

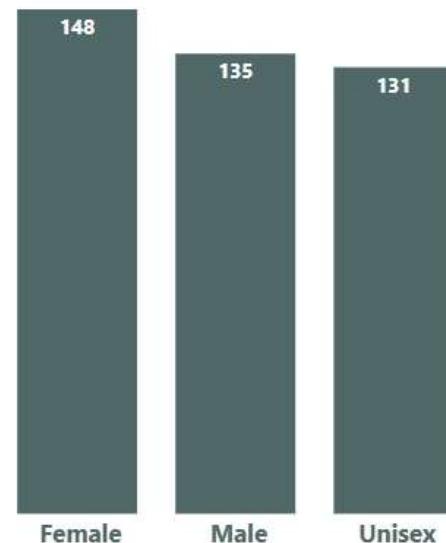
Total Quantity for Top Brand

2483

Total Due by Month



No. of Product by Gender Target



Dashboard 17 Top Brand



Second Brand

Year

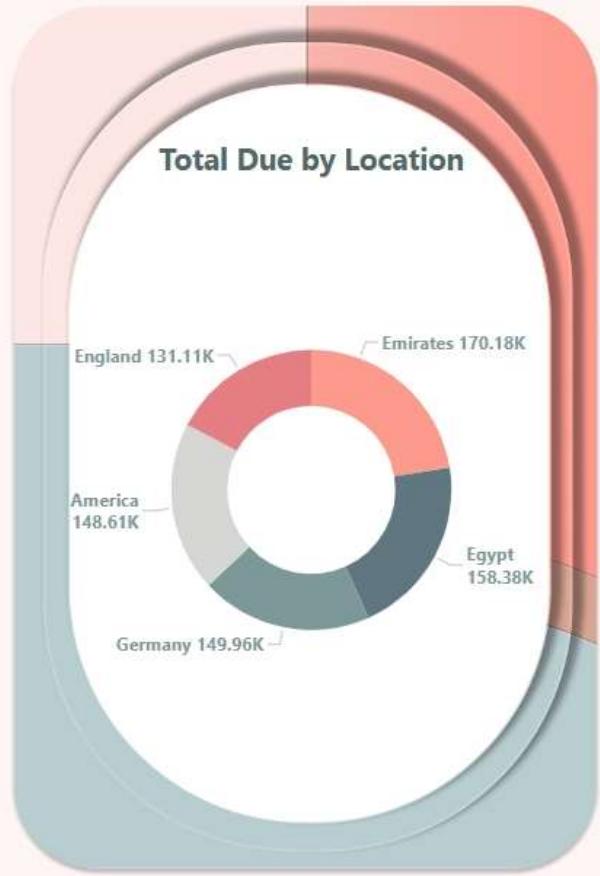
2023

2024

Top Brand

Second Brand

Third Brand

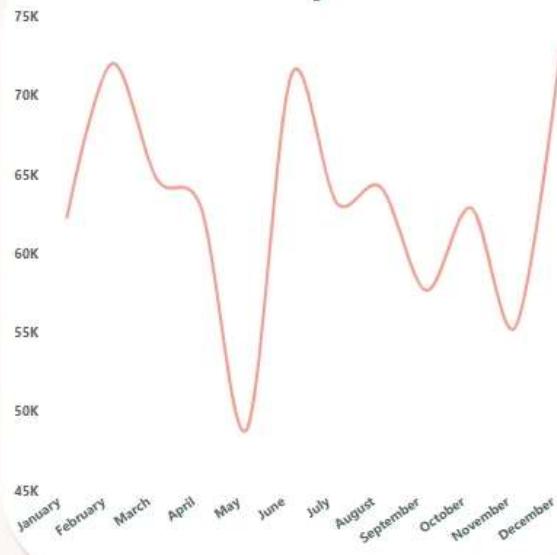


Second Brand Name
Milk Makeup

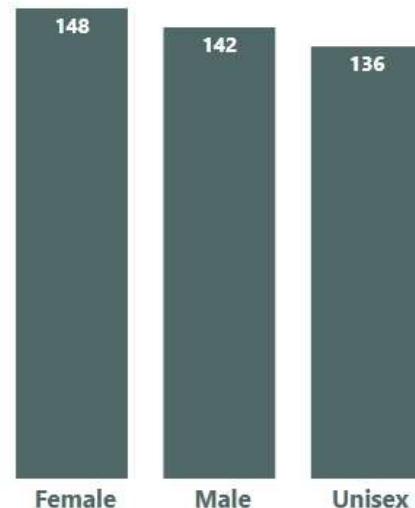
Total Due for Second Brand
758K

Total Quantity for Second Brand
2519

Total Due by Month



No. of Product by Gender Target



Dashboard 18 Second Brand



Third Brand

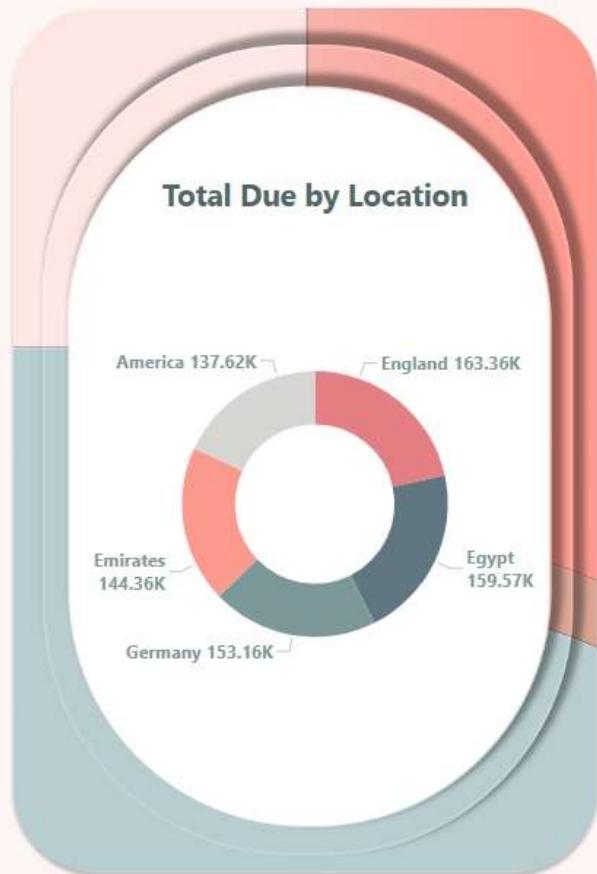
Year

2023

2024

Second Brand

Third Brand



Third Brand Name

Kiehlâ€™s

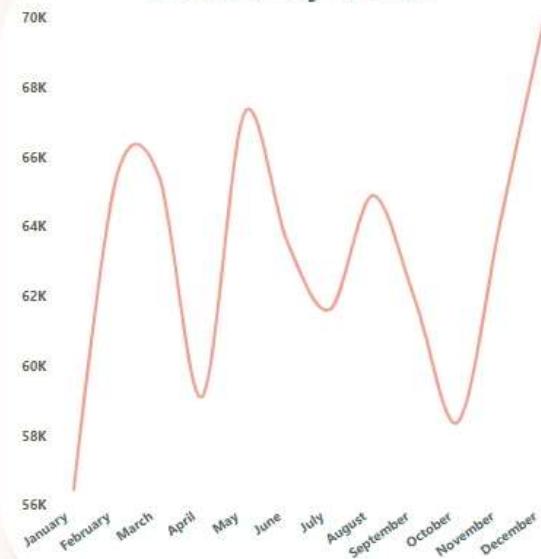
Total Due for Third Brand

758K

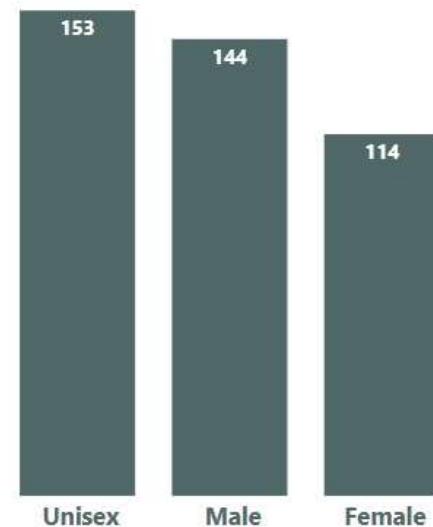
Total Quantity for ThirdBrand

2489

Total Due by Month

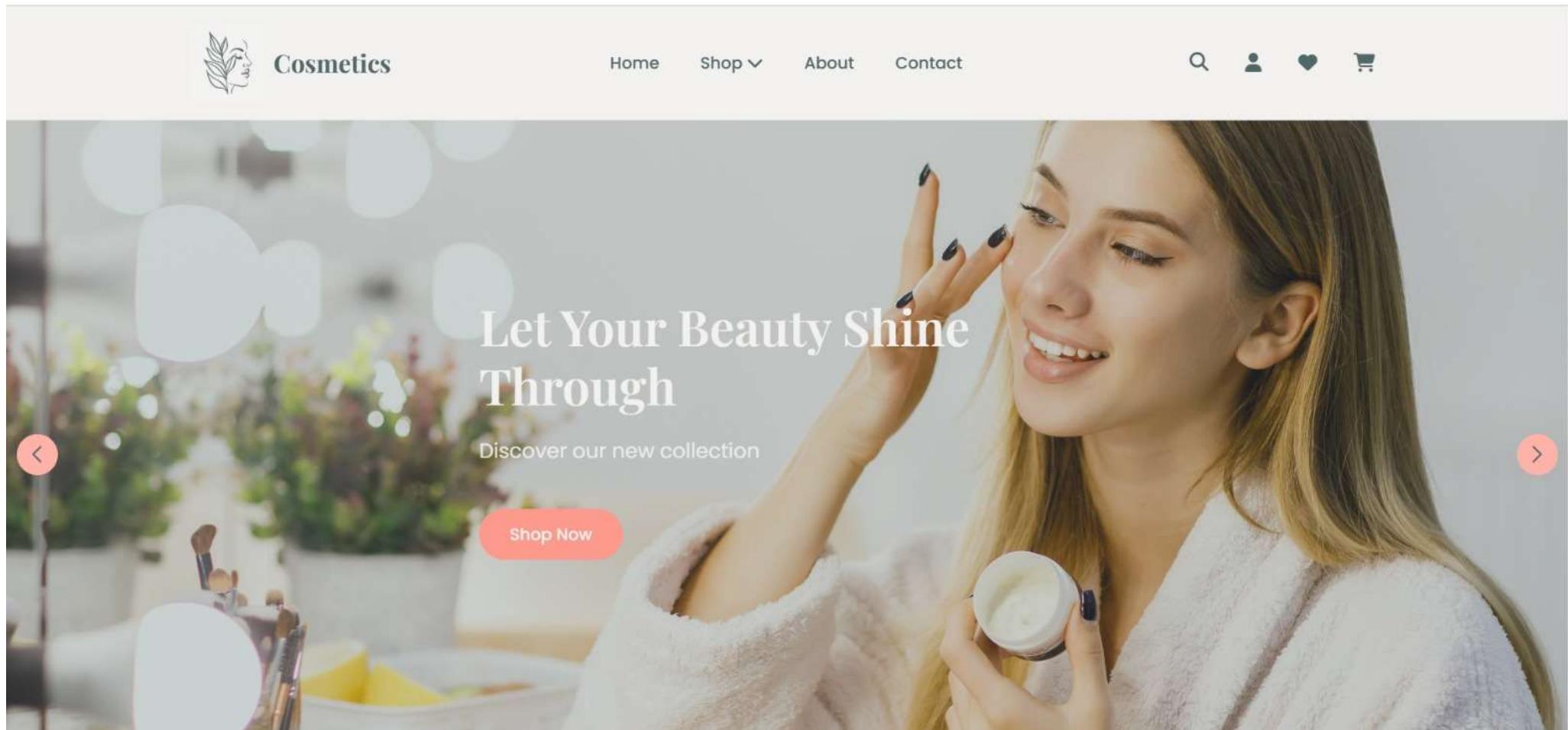


No. of Product by Gender Target



Dashboard 19 Third Brand

Appendix I Web App





Shop by Category



Makeup

Discover our collection of premium makeup products including foundation, lipstick, eyeshadow, and more.

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Skincare

Nourish your skin with our range of cleansers, moisturizers, serums, and treatments.

[Shop Now](#)



3K+

Happy Customers

15K

Products

24

Subcategories

5

No. Branches

About Us

We're passionate about bringing you the finest beauty products with natural ingredients that are good for your skin and the planet.



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Contact Information

Reach out to us through any of these channels. We're here to help!

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**Address**

123 Beauty Street
New York, NY 10001

**Business Hours**

Monday - Friday: 9AM - 6PM
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Sunday: Closed

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