# Overview

Universal Export is a manufacturing company for garments operating out of Southampton, United Kingdom. It manufactures various types of plain, unmarked, unlabelled clothing for retailers, wholesalers, and others such as t-shirt, hoodies, jacket, etc. Retailers purchase the blank garment from Universal Export and put on their own logo or design before selling them at a markup price.

You joined the company as its first ever business analyst at the beginning of 2023 and are responsible for aiding upper management in making more rational data-driven business decisions. It is now March of 2023, the management team is deciding how it should be investing its manufacturing capacity going forward, gain an understanding of the market, and decided on how to restructure the sales team after a recent resignation of former head of sales. The management team has tasked you with creating two data visualisation reports for two separate audience:

1. External-facing report that provide overview of business operation in 2022 for shareholders: In this, you must generate a data visualisation report using data from Universal Export’s operation in 2022 that provide shareholder with a clear understanding of the company operational status overall. This report is provided yearly to 1000 of shareholders of the company and is intended for shareholder with various level of knowledge of the company. In particular, the following list, according to management, are key information that they would like to present to the shareholder to demonstrate the company situation:
   * An understanding of income, cost, and profit of Universal Expert in 2022, both as an overview snapshot of the whole period and pattern of growth or decline across various period of time.
   * Insight into various types of product that the company produced and sold. There should be an emphasis on establish clear strength and weakness of the company to shareholder according to type of products that are manufactured.
   * Communicate comparative sales performance across various different countries for the company.
   * As part of the sustainable commitment, the company has committed to reducing the use of exclusive air shipment from 1st of July 2022. The result of this commitment must be provided to shareholder.

This report is intended for distribution through email and printed copy.

1. Internal-facing report on salespeople performance:

You must generate a data visualisation report using data from Universal Export’s operation in 2022 that provide management team with insight into performance of salespeople within the company. They would like to gain understanding about various individual salespeople across various key criteria of evaluation as part of a process to determine promotion to head and deputy head of sales department.

In particular, the following information, according to management, are key factors in their decision making process:

* + Sales and revenue generated.
  + Ability to acquire new customers in 2022 and retaining existing one.
  + Understanding of company margin through focus on profitable product.

This report is intended for internal management team and will be distribute as a paper format.

# Core Assessment Task

The aim of the assignment is to assess the following key assessment criteria, both report have equal weighting for this assessment:

* Data Preparation: Appropriate extraction, transformation, and management of data provided for the creation of visualisation (10%).
* Storyline/Narrative/Insight: The data visualisation report has an effective narrative/storyline for intended insight and audience. (40%).
* Choice of Visualisation: The visualisations created are appropriate for the data that is given and the insight that is intended (15%).
* Visualisation: Visualisations must be crafted in a way that demonstrate clear understanding of human’s cognitive strength and limitation. (25%).
* Report Presentation: Clear and logical structure, coherent explanation, suitable business language and accurate spelling and grammar. (10%).

# Submission

You are asked to submit the following:

1. Online documents (in either .pdf or .docx) which contains two reports in one file:
   * The organisation and language of this report is to your discretion, but they language must be appropriate for an official business document.
2. Power BI report file (.pbix) containing all visualisations that you have created for both reports as well as data extraction, transformation, and management that were done to achieved visualisations presented.

# Dataset

In total, you are provided with 4 spreadsheets containing information on transactions, customers, products, and logistic suppliers. You are also given an extract from the HR database of salespeople information in JSON format. All of these are available in GarmentFactoryDataset.zip.

Transactions.csv – 103227 rows, 13 columns

|  |  |
| --- | --- |
| **VARIABLE** | **DEFINITION** |
| **DATA\_INDEX** | Index for each row. |
| **TRANSACTION\_ID** | Unique identification number for individual order of garments made to Universal Export. |
| **TRANSACTION\_DATE** | The date on which the order has been made. |
| **TOTAL\_PRICE** | Total price for the order. |
| **TOTAL\_COST** | Total material cost for the order |
| **CUSTOMER\_ID** | Unique identification number of the customer who made the order of garment. |
| **LOGISTIC\_ID** | Unique identification number of a company that provided logistic shipping for this order. |
| **SHIPMENT\_CITY** | Destination country of the order. |
| **SHIPMENT\_COUNTRY** | Destination city of the order. |
| **PRODUCT\_ID** | Unique identification number of the product that was ordered. |
| **QUANTITY** | Quantity of unit for the product that was ordered. |
| **PRODUCT\_PRICE** | Total price for the products within the order in GBP. |
| **PRODUCT\_COST** | Total cost for the products within the order in GBP. |

Customers.xlsx – 1 tab, 42 rows, 8 columns

## VARIABLE DEFINITION

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| **customer\_id**  **customer\_name** | | Unique identification number of the customer who made the order of garment.  Name of the customer company that made the order for the garment. | |
|  | **customer\_address** | Customer company address. |  |
| **customer\_since\_year** | | Year that the customer company made their first transaction. | |
|  | **business\_category** | Type of customer business (Retail, Bulk, Others). |  |
| **salespeople\_unique**  **\_identification** | | Unique identification number of salespeople that are responsible for dealing with the company. | |
|  | **contact\_email** | Customer company contact email. |  |
| **newin2022** | | If the customer is newly acquired in 2022. | |
| Products.csv – 110 rows, 6 columns  **VARIABLE DEFINITION**  **PRODUCT\_ID** Unique identification number of the product that was ordered.  **PRODUCT\_NAME** Name of the product.  **PRODUCT\_CATEGORY** Category of the product (t-shirt, hoodie, sweatshirt, etc.).  **PRODUCT\_COLOUR** Colour of the product.  **PRICE\_PER\_UNIT** Price per unit of garment in GBP.  **COST** Cost per unit of garment in GBP. Logistics.csv – 19 rows, 5 columns  **VARIABLE DEFINITION**  **LOGISTIC\_ID** Unique identification number of a company that  provided logistic shipping.  **LOGISTIC\_NAME** Name of the logistic company.  **LOGISTIC\_TYPE** Type of logistic operation (Air, Sea, Land, Mixed).  **LOGISTIC\_OFFICE\_LOCATION** Logistic company address.  **CONTACT\_EMAIL** Logistic company contact email.  **CONTACT\_NUMBER** Logistic company contact phone number. salespeople.json – 15 salespeople in total.  **VARIABLE DEFINITION** | | | |
|  | **SALES\_ID** | Unique identification number of salespeople. |  |
| **NATIONALITY** | | The nationality of salespeople | |
|  | **EDUCATION** | Highest education level of salespeople |  |
| **GENDER** | | Gender of the salespeople. | |

|  |  |
| --- | --- |
| **AGE** | Age of the salespeople. |
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