## Section 1: SQL

Sales table

|  |  |
| --- | --- |
| **Sales\_date** | Time period in which the sales order place, the values are truncated to 1st day of the month, i.e. 2022-11-01 means 2022-November |
| **Item\_id** | Item code for sku (key), replaced with dummy number |
| **Item\_desc** | Sku of the product, replaced with dummy names |
| **brand\_name** | Brand of the product (for example Drypers, Tena etc.) replaced with dummy names |
| **category\_name** | Category of the product (for example Tissue, Diaper, Pad) replaced with dummy names |
| **price** | Price at which product sell |
| **Number\_of\_carton\_sell** | Number of carton sell |

production table

|  |  |
| --- | --- |
| **manufacture\_date** | Time period in which the sales order place, the values are truncated to 1st day of the month, i.e. 2022-11-01 means 2022-November |
| **Item\_id** | Item code for sku (key), replaced with dummy number |
| **Item\_Desc** | Sku of the product, replaced with dummy names |
| **Raw\_material\_cost** | cost at which product produce |
| **Number\_of\_carton\_produce** | Number of carton produce |

**Question A**: Return the total listing across all sku product above 3 years from manufacturing date, by sku with number of carton available. For example:-

|  |  |  |
| --- | --- | --- |
| Item\_id | Manufacturing Date (latest manufacture\_Date if got multiple manufacture date) | Number of carton available (Number\_of\_carton\_produce – number\_of\_carton\_sell) |
| 1000001 | 2009/1/2 | 152 |
| 1000002 | 2009/1/5 | 289 |
| … | … |  |

**Question B**: Generate a consolidated report showing the total sales revenue and total production quantity for each month, regardless of whether there were sales or production activity. Include the month, total sales revenue, and total production quantity by brand

|  |  |  |
| --- | --- | --- |
| Brand Name | Month | Sales Revenue (Price\*number\_of\_carton\_sell – raw\_material\_cost\*number\_of\_carton\_produce) |
| BRAND-NAME-A | November | 15000 |
| BRAND-NAME-A | December | 40000 |
| BRAND-NAME-B | November | 10000 |
| BRAND-NAME-B | December | 29900 |
| … | … | … |

**Question C**: Find the average price per carton of each category of products sold in the month of November 2022 by day. Include the category name and the average price per carton.

|  |  |  |
| --- | --- | --- |
| Category | Day | Average Price |
| CATEGORY A | 2022/11/1 | 1000 |
| CATEGORY B | 2022/12/2 | 1200 |
| CATEGORY B | 2022/1/5 | 1700 |

## Section 2: Visualization

The commercial director overseeing Malaysia would like to understand the overall sales and revenue in Vinda, so that they can derive the strategy accordingly. Using the dataset provided:

1. Prepare a presentation deck on findings to be shared with stakeholder
   * Explore and list down the useful observation
   * Provide key recommendations that the Marketing team can action on
2. Explain your choice of metrics, visualisation and storytelling
3. Name the limitation(s) of this analysis, with proposal to overcome

You may use Tableau for analysis. In your submission, include the working files.