

About the dataset -

You are given all the data of orders of Milkbasket that were **delivered** in a particular month.

It is split into following files -

Products.csv

Contains the product catalog details sold on MilkBasket

- Product Id – unique identifier for a product *(if any of the below columns change, the product id will change)*
- Product Name – name of product linked to a particular product id
- Product Weight – weight of product linked to a particular product id
- Brand name – brand of product
- Subcategory name – multiple similar products are grouped into subcategories
- Category name – multiple similar subcategories are grouped into categories

product id	product name	weight	brand name	subcategory name	category name
1	Amul Full Cream Milk Pouch	500 ML	Amul	Fresh Milk	Milk
2	Amul Taaza Toned Milk Pouch	500 ML	Amul	Fresh Milk	Milk
3	Amul Slim 'N' Trim Milk Pouch	500 ML	Amul	Fresh Milk	Milk
8573	Amul Moti Toned Milk Pouch	450 ML	Amul	Fresh Milk	Milk

Orders.csv

Contains information about the net worth of order and the date of its delivery.

- Date – date of order delivery
- Order Id – unique identifier for an order
- Product Id – same as previous file
- Net Product Value – total value charged on a product level

Single order may contain 1 or more different products. Example -

Order date	Order id	Product id	Net product value
01-05-2018	3003065	8	30
01-05-2018	3003065	5072	38
01-05-2018	3003065	32	125
01-05-2018	3003065	1	78
01-05-2018	3003065	8507	57
01-05-2018	3003065	4050	150

Assignment –

Write a python code to read the data from shared csv files and derive the following answers. Explanation of data is given in the previous section.

- Top 5 selling products, brand, subcategories, categories in terms of orders and sales in this month.
- Find **average of day on day penetration** for all categories. **Day on day penetration** is defined for a given order date and given category as total orders containing products of that category as a percent of total orders placed on that day.

For example - if on 1st May 2021 we delivered 100 orders out of which 60 orders contained Milk, **Day on Day penetration** for Milk on 1st May 2021 is 60%.

So if from 1st to 5th May 2021 **Day on Day penetration** for milk are [60%, 70%, 80%, 60%, 70%], then **Average Day on Day penetration** for milk is 68% for given period.