ASSIGNMENT 3

Topic: Data Aggregation & Visualization

Due: 1 week from announcement.

TASK 1:

(a) Load `Sales Data.csv`, assign it into variable named `sales`. Display the first 10 rows of the `sales`.

(b) Get total profit of all months and show line plot with the following style properties:

- Line Style dotted
- Line color should be red
- Line width should be 3
- Add a circle marker with size 8 and blue color
- Show legend at the lower right location.
- *X* label name = Month Number
- *Y* label name = Sold Unit number
- Title = Company Sales Per Month

(c) Read data from `Sales Data.csv` and show all product sales using a multiline plot, sized 1200 × 600 pixels. Differentiate all the lines by line color and marker.

(d) The products in the sales data can be further grouped as follow:

a. Category A: facecream, facewash, moisturizer
b. Category B: toothpaste
c. Category C: bathingsoap, shampoo

Group the data accordingly and obtain the following information, then plot into two subplots:

1. total profit of each category for every month
2. percentage of each category for every month over the grand total profit of all categories.

TASK 2:

1. Read the three datasets given below and save the data into different DataFrame.
    a. customer.csv
    b. products.csv
    c. sales.csv
2. From the above datasets, produce a chart (any appropriate chart) for each below:
    a. products sold by each store
    b. quantity sold against each product
    c. quantity and total sales against each product
3. From the above datasets, produce an output for each below:
    a. quantity sold against each product against each store
    b. quantity sold against each store with total turnover of the store
    c. products which are not sold
    d. customers who have not purchased any product