

Computer Applications Lab

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LabSheet8: Matplotlib

Answer the following questions on the **sales** and **movies** datasets. The datasets are available on MS teams.

Notes

- 1- Grading will be based on the correctness, clarity and the completeness of the figure elements like labels, title and legend if needed.
- 2- The figures should appear in the questions order
- 3- Fill the missing values in each column with the average value for that column.

Tasks

- 1- Using the Sales dataset answer the following
 - a. Draw the total sales per month as a line plot
 - b. Draw a stackplot that shows the sales per month
 - c. Draw a stacked bar plot that shows the percentage of sales for each product for January, April , August and November
 - d. Draw a pie chart that shows the percentage of sales for each product in May
 - e. Draw a line plot that shows the sales for each product across all months
 - f. Find the milk sales for each quarter and draw it as a bar plot
- 2- Using the movies dataset answer the following
 - a. Draw a pie chart for the movies produced by China. The pie chart shows the distribution of the movies based on the language.
 - b. Draw a chart that shows the number of movies produced by Spain, France, Canada and China in each year between 2010 and 2015 inclusive.
 - c. Draw a scatter plot that shows the relation between the budget and the IMDB score for movies produced by France. The size of the dot should be based on the duration of the movie and the color based on the language of the movie.
 - d. Draw a pie chart that shows the percentage of the movies for each Genre. Note: if the movie is Action and War then you count it in the Action group and the War group.