R for Data Science – Paper Set B

**Problem Statement:**

Jatayu is a retail organization dealing with FMCG products. They have business in many major Indian cities. They are planning to launch a marketing campaign to increase their customer base in other cities.

They have collected various data points of their customers. You work as a Data Analyst in Samaritan and you have been assigned with the task of analyzing the data.

**Data Description:**

|  |  |  |
| --- | --- | --- |
| **S.NO** | **Column Name** | **Description/ Comments** |
| 1 | Customer ID | Customer's unique identifier |
| 2 | Quantity | Number of products ordered by the customer |
| 3 | Order ID | Unique order ID for every order |
| 4 | Region | Region in which the order has been delivered |
| 5 | Customer Type | Type of customer account |
| 6 | Payment Method | Payment method done for the particular order |
| 7 | Date of Order | Date in which the order was made |
| 8 | City | Name of the city in which order was delivered |
| 9 | Product Line | Kind of product which was ordered |
| 10 | Unit Price | The single unit price of the product |
| 11 | Profit | The profit of that order. It is loss if the value is negative. |
| 12 | Age | The age of the customer |
| 13 | Monetary Score | Customer money score in the range of 0 to 100. |

**Task:**

1. Create a column called as “Total Sales” and find the value. Find the average sales of each region
2. Find the top 3 cities based on average profit. Find the bottom 3 cities based on total profit.
3. Get the day name from the date of order. Find the total quantity ordered on each day name.
4. Based on the Age and Monetary Score, predict the total sales of the customers. What will be the total for a customer whose Age is 35 and Monetary Score is 70.
5. Find the average monetary score based on the customer type. Plot a pie chart for this data.
6. Find the average profit of each payment method and plot a bar chart for this data.

**Instructions:**

1. Once completed, save the file as R file and upload it in the given location.
2. Perform all the questions in a single R file.
3. Writing the inference is not mandatory, however doing it would fetch the participants extra marks.
4. More than the answers, it is the logical approach that you took to solve the questions matters.