

# Application of Data Analysis in Business with R Programming

**INSTRUCTIONS**

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# PRACTICE TASK 1

## PRACTICE TASK FOR DATA MANIPULATION INSTRUCTIONS

1. Open the file 1ST PRACTICE TASK.R
2. Write your code in the file and run them

QUESTIONS:

### PART 1 : DATA TRANSFORMATION

- i.GET THE INFORMATION OF THE COLUMNS 2-10
- ii.WHERE PRODUCT\_CATEGORY IS 'household'
- iii.ARRANGED IN ASCENDING ORDER OF QUANTITY\_DEMANDED.

# PRACTICE TASK 1

## PRACTICE TASK FOR DATA MANIPULATION INSTRUCTIONS

### PART 2 : STATISTICAL INTERPRETATION

- i. FIND THE AVERAGE AND SUMMATION OF QUANTITY\_DEMANDED
- ii. GROUPED BY PRODUCT CATEGORY

## **PRACTICE TASK 2**

### **PRACTICE TASK FOR DATA VISUALIZATION INSTRUCTIONS**

- 1. Open the file 2ND PRACTICE TASK.R**
- 2. Write your code in the file and run them**

#### **QUESTIONS:**

- 1. BUILD A LINE PLOT FOR AVERAGE\_PROFIT & COMPANY**
- 2. BUILD A COXCOMB CHART FOR EACH OF THE TYPE'S QUANTITY DEMANDED WHERE THE PRODUCT\_TYPE IS "Organic food".**

# **CAPSTONE TASK**

## **INSTRUCTIONS**

**In the Capstone Task, as per the given questions, you will have to do the following :**

- 1. Transform data**
- 2. Make statistical interpretation of data**
- 3. Make graphical representations of data**
- 4. Build correlation matrix**

**To do the CAPSTONE TASK :**

- 1. Open the file CAPSTONE TASK.R**
- 2. Write your code in the file and run them**

# CAPSTONE TASK

## INSTRUCTIONS

### ***PROBLEM STATEMENT:***

*You are provided with a dataset of a departmental store. It contains details of products from May, 2020, a period marked by covid-19. Your manager wants you to find out that investing in which products will be more profitable. Your objective is to analyse the patterns and trends of the products, and gather insights for strategic decision making. (At this level, you just need to analyse it. You don't need to make reports now. You will build reports and make recommendations in future at your job, with the knowledge you gained from the entire project.)*

# CAPSTONE TASK

## INSTRUCTIONS

### QUESTIONS:

#### **PART 1: DATA MANIPULATION**

- i. ARRANGE YOUR DATASET IN DESCENDING ORDER OF PROFIT
- ii. USE FIRST 360 ROWS
- iii. FIND THE AVERAGE, MAXIMUM AND MINIMUM GROUPED BY PRODUCT CATEGORY

#### **PART 2: DATA VISUALIZATION**

- i. PLOT FOR AVERAGE\_NET\_PROFIT & COMPANY
- ii. SCATTER PLOT FOR SELLING\_PRICE & QUANTITY\_DEMANDED

#### **PART 3: CORRELATION**

- i. BUILD A CORRELATION MATRIX OF THE COMPLETE DATASET
- ii. PLOT THE HEAT MAP OF THE CORRELATION MATRIX

**Thank you!**