## TASK 2: DATA VISUALIZATION & STORYTELLING

Data Analyst Internship

By: Kajal Prajapati

Tools Used: Python (Matplotlib), Pandas

Dataset: Superstore.csv

#### **OBJECTIVE:**

#### TO ANALYZE SUPERSTORE SALES DATA AND CREATE CLEAR, INSIGHT-DRIVEN VISUALIZATIONS USING PYTHON (MATPLOTLIB) THAT HELP

#### **BUSINESSES MAKE BETTER DECISIONS.**

- Dataset: Superstore.csv
- It contains:
- Product names and categories
- Sales, Quantity, Profit
- Customer segments
- Order dates and regions

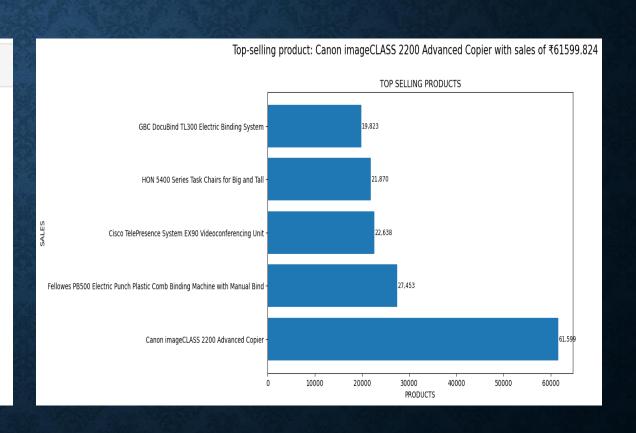
#### KEY QUESTIONS ANSWERED:

- 1. WHICH PRODUCTS HAVE THE HIGHEST AND LOWEST SALES?
  - 2. WHICH CUSTOMER SEGMENTS ARE MOST PROFITABLE?
    - 3. HOW CAN WE IMPROVE BUSINESS PERFORMANCE USING DATA?

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### TOP-SELLING PRODUCTS BASED ON TOTAL SALES

to	p_products		
	Product Name	Sales	
0	Canon imageCLASS 2200 Advanced Copier	61599.824	
1	Fellowes PB500 Electric Punch Plastic Comb Bin	27453.384	
2	Cisco TelePresence System EX90 Videoconferenci	22638.480	
3	HON 5400 Series Task Chairs for Big and Tall	21870.576	
4	GBC DocuBind TL300 Electric Binding System	19823.479	

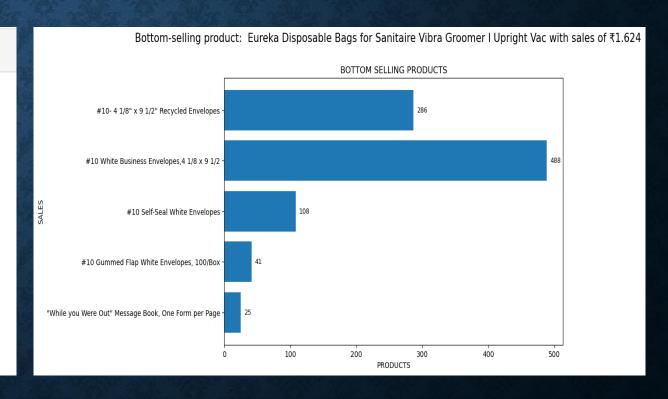


#### INSIGHT:

"CANON IMAGECLASS 2200 ADVANCED COPIER" GENERATE THE MOST REVENUE. RECOMMENDATION: INCREASE STOCK AND PROMOTIONS FOR THESE.

## LEAST PROFITABLE CATEGORY AND REGION

bo	ttom_products		
	Product Name	Sales	
0	"While you Were Out" Message Book, One Form pe	25.228	
1	#10 Gummed Flap White Envelopes, 100/Box	41.300	
2	#10 Self-Seal White Envelopes	108.682	
3	#10 White Business Envelopes,4 1/8 x 9 1/2	488.904	
4	#10- 4 1/8" x 9 1/2" Recycled Envelopes	286.672	

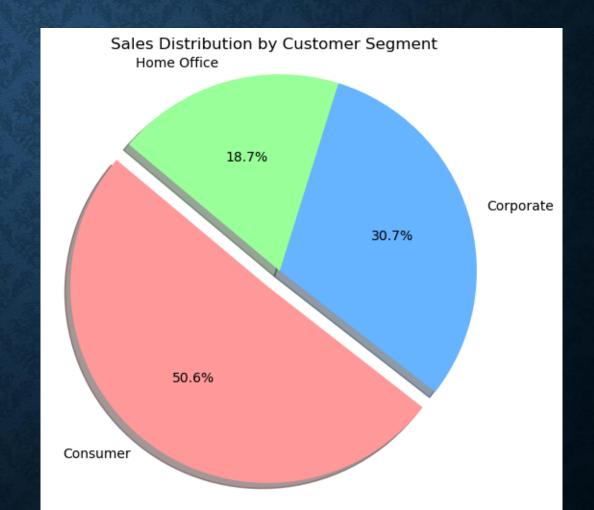


#### **INSIGHT:**

LOW SALES MAY BE DUE TO LOW DEMAND OR MARKETING.
RECOMMENDATION: ANALYZE FURTHER OR CONSIDER DISCOUNTING/DISCONTINUATION.

#### CUSTOMER SEGMENT ANALYSIS

segment_data						
	Segment	Sales	Profit			
0	Consumer	1.161401e+06	134119.2092			
1	Corporate	7.061464e+05	91979.1340			
2	Home Office	4.296531e+05	60298.6785			



# INSIGHT: CUSTOMER SEGMENTS HAVE SIMILAR PERFORMANCE IN SALES AND PROFIT. BALANCED ENGAGEMENT ACROSS SEGMENTS IS A POSITIVE SIGN.

#### SUMMARY

THE ANALYSIS WAS FOCUSED ON IDENTIFYING WHICH PRODUCTS AND SEGMENTS PERFORMED BEST OR WORST. THESE VISUAL INSIGHTS CAN HELP BUSINESSES IMPROVE MARKETING AND INVENTORY STRATEGY.