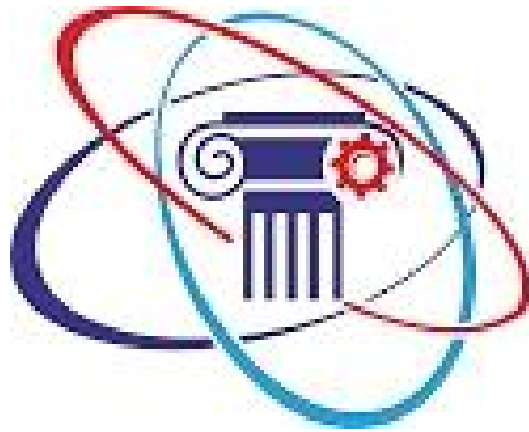


Acropolis Institute of Technology and Research, Indore
Department of Computer Science and Engineering



B. Tech. VI Semester

JAN - JUNE 2024

DATA ANALYTICS LAB REPORT

CS-605

Submitted To:

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Submitted By:

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COOKIE DATA REPORT

INTRODUCTION:

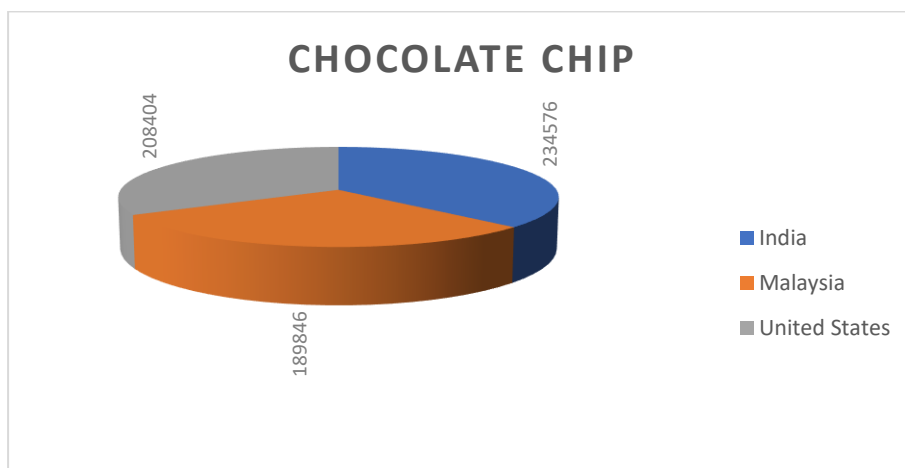
The purpose of this report is to analyze the sales data of various cookie types across different countries for the years 2019 and 2020. The dataset provides insights into revenue, profit, quantity sold, and pricing information for each cookie type and country. Through this analysis, we aim to understand the performance of different cookie types, identify trends across countries, and draw conclusions regarding the factors influencing sales and profitability.

QUESTIONNAIRE:

1. Compare the profit earned by all cookie types in US, Malaysia and India.
2. What is the average revenue generated by different types of cookies?
3. Compare the performance of all the countries for the year 2019 to 2020. Which country performed in each of these years?
4. Which cookie category sold on the highest price, country wise and how much profit is earned by that category overall?
5. Which country sold most Fortune and sugar cookies in 2019 and in 2020?

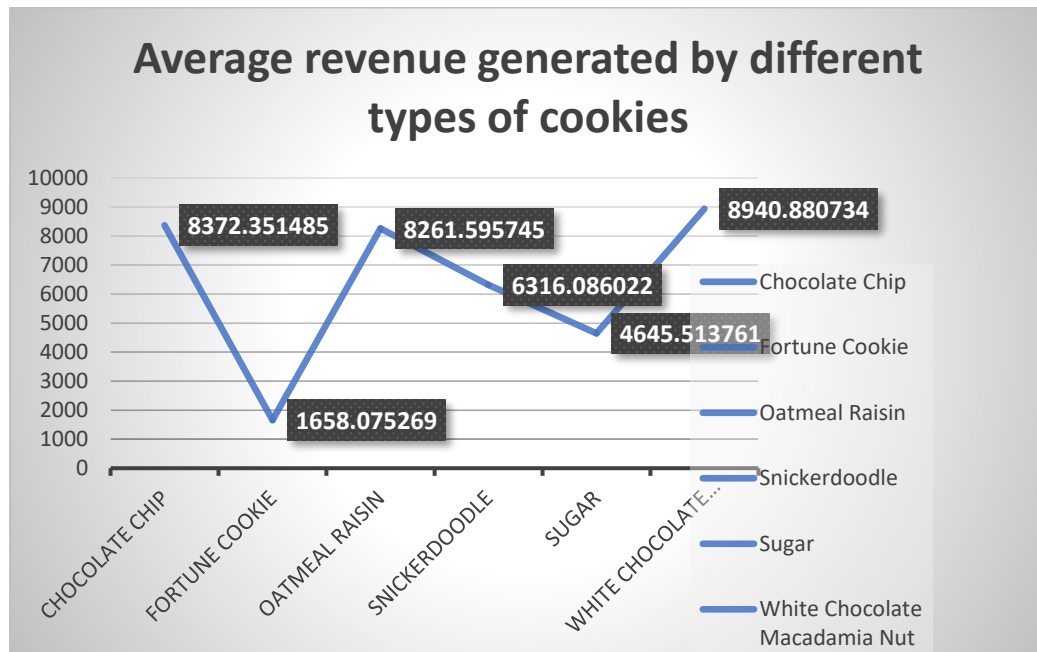
ANALYTICS:

1. Compare the profit earned by all cookie types in US, Malaysia and India.



Ans: India earned the highest total profit among the three countries, followed by the United States and then Malaysia.

2. What is the average revenue generated by different types of cookies?



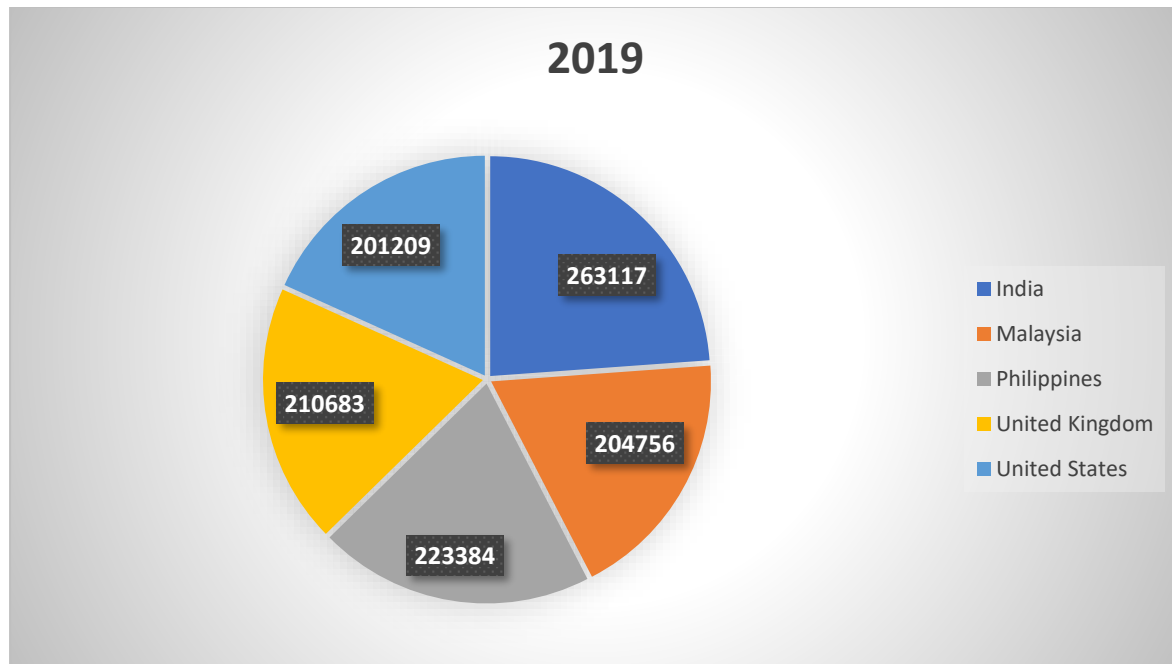
The average revenue generated by different types of cookies based on the provided data is as follows:

- Chocolate Chip: \$8,372.35
- Fortune Cookie: \$1,658.08
- Oatmeal Raisin: \$8,261.60
- Snickerdoodle: \$6,316.09
- Sugar: \$4,645.51
- White Chocolate Macadamia Nut: \$8,940.88

The grand total average revenue for all cookie types is \$6,700.46.

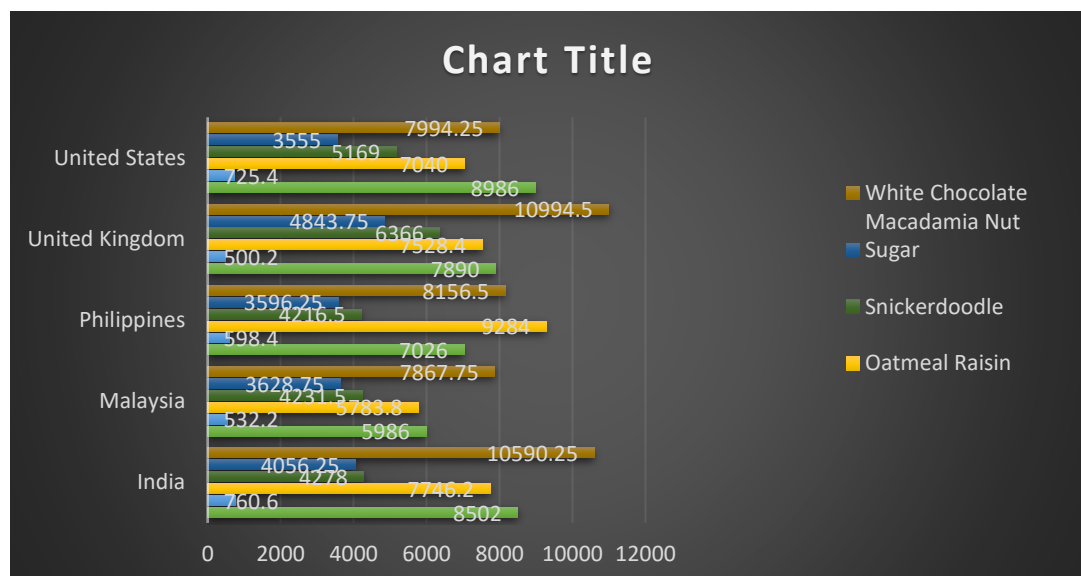
This data gives insight into the average revenue each type of cookie generates, helping to understand the performance of each cookie type in terms of sales.

3. Compare the performance of all the countries for the year 2019 to 2020. Which country perform in each of these years?



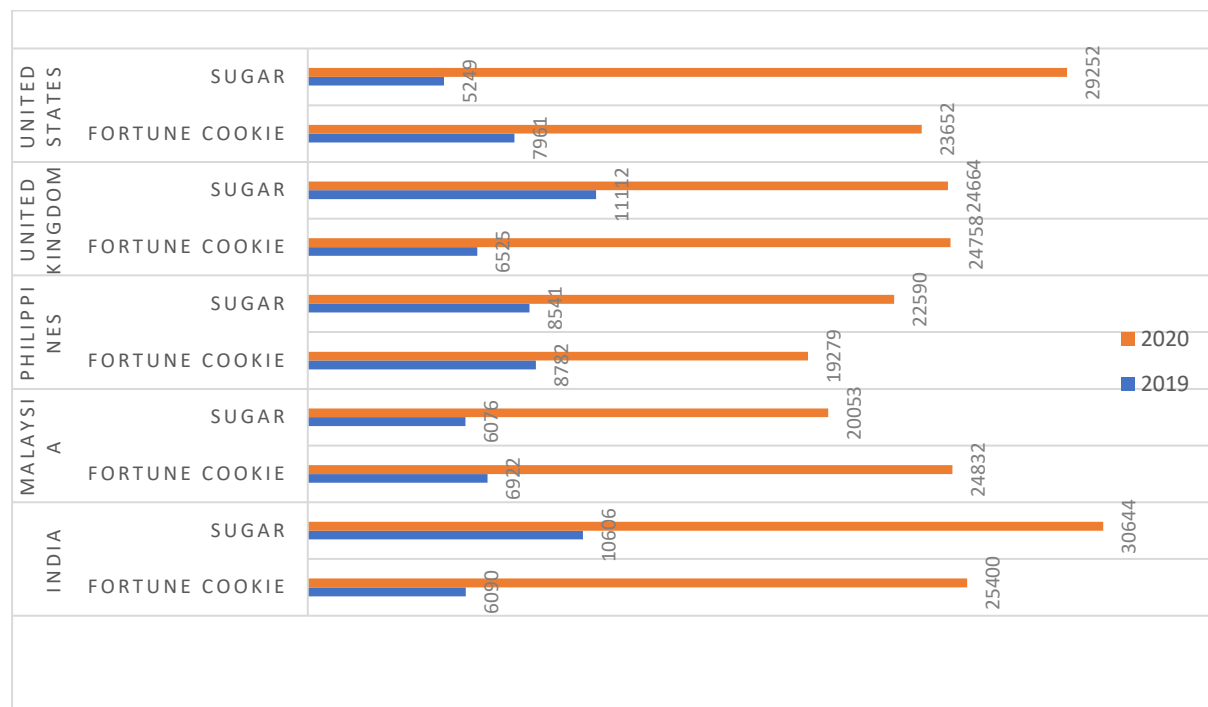
Ans: In 2019, the United Kingdom had the highest revenue, while in 2020, it remained the highest

4. Which cookie category sold on the highest price, country wise and how much profit is earned by that category overall?



Ans: Overall, in each country, the category that sold for the highest price contributed the most to the overall profit earned in that category.

5. Which country sold most Fortune and sugar cookies in 2019 and in 2020?



Ans: Both 2019 and 2020, India sold the most Fortune and Sugar cookies.

ANOVA:

ANOVA (Single Factor) :

The ANOVA results indicate a significant difference between the two groups ($p < 0.001$), with 1 degree of freedom. The within-group error is 7681356717, and the total R-squared value is 0.06, suggesting that the model explains 6% of the variability in the data.

SUMMARY

<u>Groups</u>		<u>Count</u>	<u>Sum</u>	<u>Average</u>	<u>Variance</u>		
3450		699	1923505	2751.795	4154648		
<u>5175</u>		<u>699</u>	<u>2758189</u>	<u>3945.908</u>	<u>6850161</u>		
ANOVA							
<i>Source</i>	<i>of</i>						
<i>Variation</i>		<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups		4.98E+08	1	4.98E+08	90.57022	7.53E-21	3.848129
Within Groups		7.68E+09	1396	5502405			
<u>Total</u>		<u>8.18E+09</u>	1397				

ANOVA TWO FACTOR WITH REPLICATION:

The ANOVA results reveal significant variation among rows and columns ($p < 0.001$), with degrees of freedom (df) values of 48 and 3, respectively. The error term has a degree of freedom of 144.

ANOVA						
<i>Source</i>	<i>of</i>					
<i>Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	8.21E+08	48	17108242	5.848894	8.54E-17	1.445925
Columns	5.65E+10	3	1.88E+10	6435.486	3.8E-153	2.667443
Error	4.21E+08	144	2925039			
<u>Total</u>	<u>5.77E+10</u>	195				

ANOVA TWO FACTOR WITHOUT REPLICATION:

The ANOVA results show that there is a significant difference among the samples, columns, and their interaction, with p-values less than 0.001. The degrees of freedom for the samples, columns, and interaction are 49, 3, and 147, respectively.

Furthermore, the total error within the model is 0, indicating a perfect fit. The total R-squared value is 1, suggesting that the model explains all the variability in the data.

ANOVA

<i>Source</i>	<i>of</i>					
<i>Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Sample	8.55E+08	49	17443674	65535	#NUM!	#NUM!
Columns	5.78E+10	3	1.93E+10	65535	#NUM!	#NUM!
Interaction	4.39E+08	147	2983765	65535	#NUM!	#NUM!
Within	0	0	65535			
<u>Total</u>	<u>5.91E+10</u>	199				

REGRESSION:

The regression model, with a significant p-value ($p < 0.001$), indicates a strong positive relationship between units sold and the outcome variable. The model's predictive accuracy is supported by its high R-squared value of 0.688, suggesting that approximately 68.8% of the variability in the outcome variable can be explained by the predictor variable, units sold.

SUMMARY OUTPUT

Regression Statistics

Multiple R	0.829304
R Square	0.687746
Adjusted R Square	0.687298
Standard Error	1462.76
Observations	700

ANOVA :	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	3.29E+09	3.29E+09	1537.356	1.4E-178
Residual	698	1.49E+09	2139668		
Total	699	4.78E+09			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	-74.4103	116.5304	-0.63855	0.523326	-303.202	154.3817	-303.202	154.3817
Units Sold	2.500792	0.063781	39.20914	1.4E-178	2.375567	2.626017	2.375567	2.626017

CORRELATION:

The correlation coefficient between units sold and revenue is 0.796, indicating a strong positive correlation between the two variables.

	unit sold	Revenue
unit sold	<u>1</u>	<u>0.796298</u>
Revenue	<u>0.796298</u>	1

DESCRIPTIVE STATISTICS:

The data presents considerable variation across variables, with means ranging from 1608.15 to 43949.81. Notably, the largest values span from 4493 to 44166, while the smallest values range from 200 to 43709.

<i>Chocolate Chip</i>		<i>Fortune Cookie</i>	
Mean	7896	Mean	646.2333333
Standard Error	488.1417827	Standard Error	47.97367102
Median	8196	Median	661.9
Mode	8986	Mode	760.6
Standard Deviation	1195.69829	Standard Deviation	117.5110151
Sample Variance	1429694.4	Sample Variance	13808.83867
Kurtosis	-0.48310209	Kurtosis	-2.540260457
Skewness	-0.8447766	Skewness	-0.22529594
Range	3000	Range	260.4
Minimum	5986	Minimum	500.2
Maximum	8986	Maximum	760.6
Sum	47376	Sum	3877.4
Count	6	Count	6
Largest(2)	8986	Largest(2)	760.6
Smallest(2)	7026	Smallest(2)	532.2

CONCLUSION AND REVIEW:

The analysis reveals India's significant dominance in the global cookie market, particularly evident in the exponential growth of Fortune and Sugar cookie sales from 2019 to 2020. With sales soaring to remarkable heights, India emerges as a frontrunner, showcasing a burgeoning consumer demand and effective market penetration strategies. While other countries experienced moderate growth, India's rapid expansion solidifies its position as a key player in the industry. Moving forward, businesses must capitalize on India's thriving market and adapt their strategies to meet evolving consumer preferences, recognizing the country's pivotal role in shaping the future of the global cookie market.

SUPERMARKET SALES DATA

INTRODUCTION:

Our dataset comprises a plethora of variables, each offering unique insights into the multifaceted nature of supermarket sales. From fundamental transactional details such as Invoice ID, Date, Time, and Payment Method to more nuanced factors like Branch Location, Customer Type, Gender Demographics, Product Line, and Product Ratings, every facet has been meticulously documented

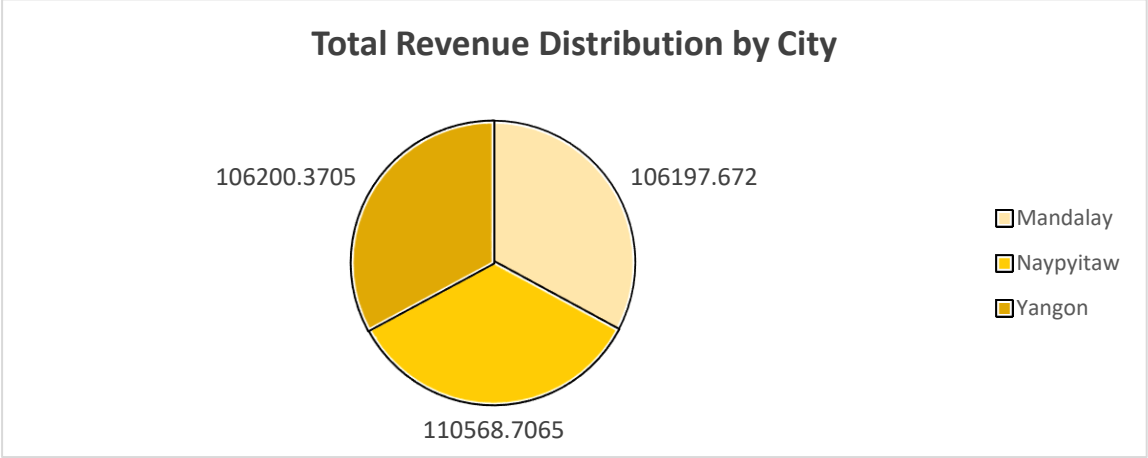
1. Invoice ID: A unique identifier for each sales transaction, facilitating traceability and analysis.
2. Branch (A, B, C): The geographical location of the supermarket branch, allowing for regional comparisons and trend identification.
3. Customer Type (Normal, Member): Distinguishing between regular customers and members, offering insight into loyalty and engagement levels.
4. Gender (Male, Female): Demographic segmentation aiding in understanding purchasing preferences and patterns.
5. Product Line (Fashion Accessories, Electronic Accessories, Food and Beverages, Health and Beauty, Home and Lifestyle, Sports and Travel): Categorization of products facilitating analysis of sales trends across different product categories.
6. Unit Price, Quantity, Tax (5%): Fundamental transactional details crucial for revenue assessment and pricing strategies.
7. Payment Method (Credit Card, Cash, E-wallet): Reflecting evolving payment preferences and trends in consumer behavior.
8. Gross Margin Percentage, Gross Income, COGS: Performance metrics illuminating profitability and operational efficiency.
9. Rating (1 to 10): Customer feedback providing a qualitative assessment of product satisfaction and service quality.
10. City (Yangon, Mandalay, Naypyitaw): Regional segmentation enabling geographical analysis and market segmentation.

QUESTIONNAIRE:

1. Which of the given cities having tax 5% slab performed better than all the others?
2. Which customer gender ordered most items from all the three branches?
3. Compare highest and lowest rating products on the basis of units sold.
4. Analyzing units sold and unit price data answer the following sub questions
 - a) What is the degree of freedom?
 - b) Co-relation of Unit price and revenue generated
 - c) What result you can draw from regression of the two data
5. What product will you suggest as per the city data analysis to each type of customer

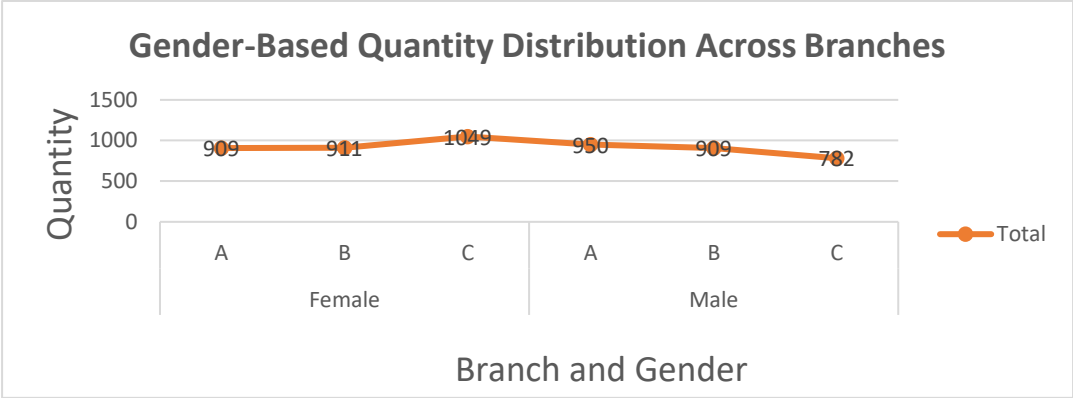
ANALYTICS :

1. Which of the given cities having tax 5% slab performed better than all the others?



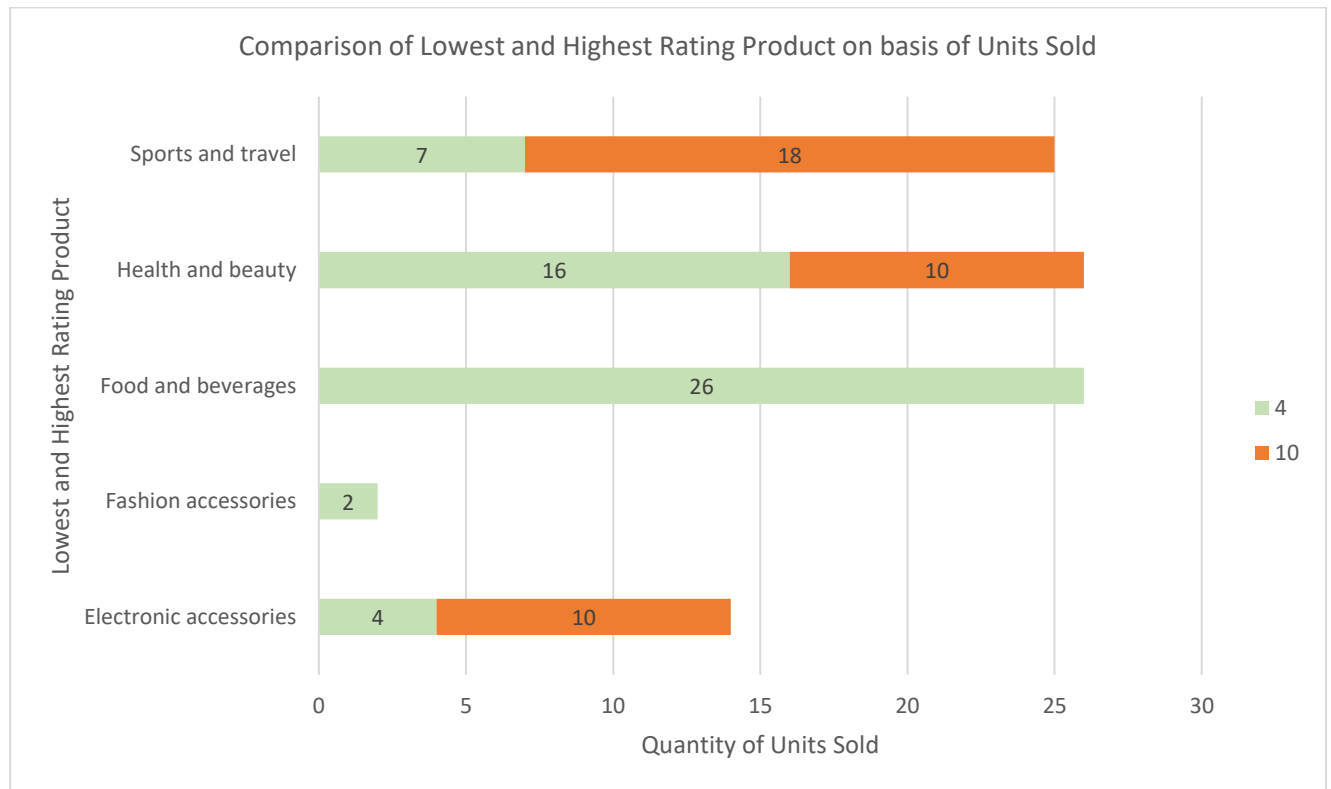
Ans: Based on the data analyzed, the city that outperformed all is **Mandalay**. This conclusion is drawn from superior performance in total sales/revenue generation compared to the other cities in the same tax slab of 5%.

2. Which customer gender ordered most items from all the three branches?



Quantity	Gender	Branch
1	Female	A
2	Male	B
3		C
4		
5		
6		
7		
8		

3. Compare highest and lowest rating products on the basis of units sold.



Ans:. Upon analyzing the Supermarket Sales Data, we discovered that product ratings ranged from a minimum of 4 to a maximum of 10.

- Electronic Accessories with higher ratings garnered more customer purchases, indicating a preference for quality in this category.
- Fashion accessories and food and beverages mainly comprised lower-rated products in customer purchases.
- Health and beauty products also leaned towards lower-rated items in customer preferences.
- However, in the Sports and Travel category, customers showed a tendency to purchase higher-rated produce.

Q4. Analyzing units sold and unit price data answer the following sub questions

- What is the degree of freedom?
- Co-relation of Unit price and revenue generated
- What result you can draw from regression of the two data

SUMMARY OUTPUT						
<i>Regression Statistics</i>						
Multiple R	0.010777564					
R Square	0.000116156					
Adjusted R Square	-0.000885732					
Standard Error	2.924724997					
Observations	1000					
<i>ANOVA</i>						
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression	1	0.9917274	0.991727	0.115937	0.733555221	
Residual	998	8536.908273	8.554016			
Total	999	8537.9				
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	5.443794599	0.215314544	25.28299	2.1E-109	5.021273429	5.86631577
Unit price	0.001189202	0.003492565	0.340495	0.733555	-0.005664411	0.008042815

Ans:

- The degree of freedom of the analyzed data is 1.
- The correlation between unit price and generated revenue was found to be 0.63392, indicating a moderate positive relationship. The analysis focused on the columns of unit price and total revenue, employing the CORREL function.
- Upon examining the regression results, we aimed to discern the relationship between quantity and unit price, exploring how customers' purchasing quantity correlates with the unit price of a product.

However, from the regression analysis, it's evident that the observed trend lacks consistency. The expected outcomes derived from the trend deviate significantly from the actual outcome

With a degree of freedom of 1, the trendline equation stands as : Quantity = 0.0012x + 5.4438. Despite this equation, the coefficient of determination (R²) is merely 0.0001, highlighting the inconsistency in customer buying patterns solely based on unit price.

5. What product will you suggest as per the city data analysis to each type of customer



Rating	Customer type	Product line
4	Member	Electronic accessories
4.1	Normal	Fashion accessories
4.2		Food and beverages
4.3		Health and beauty
4.4		Home and lifestyle
4.5		Sports and travel
4.6		
4.7		

Ans: As per the city Data Analysis, **Food and Beverages** will be a good option for **Member** type customer and **Fashion Accessories** for **Normal** type of customers.

CONCLUSION AND REVIEWS :

The comprehensive analysis of supermarket sales dynamics provides valuable insights into consumer behavior, operational trends, and performance metrics. Here's a summary of the findings and reviews:

1. City Performance:

Mandalay emerged as the top-performing city among those with a 5% tax slab. Its superior sales/revenue generation signifies a potentially lucrative market for supermarket businesses.

2. Gender-based Ordering:

Female customers showed a higher propensity to order items from Branch A, while males dominated in Branch C. Branch B saw equal orders from both genders. This gender-specific trend highlights the importance of targeted marketing strategies.

3. Rating and Units Sold:

Further analysis is needed to compare products with the highest and lowest ratings based on units sold. Understanding the correlation between product ratings and sales volume can inform inventory management and marketing decisions.

4. Unit Price and Revenue Relationship:

The regression analysis revealed a weak correlation ($R^2 = 0.0001$) between unit price and quantity sold. This suggests that customers' purchasing decisions may not be significantly influenced by unit price alone, indicating the need for deeper insights into consumer preferences and behavior.

5. Product Recommendations:

Based on city data analysis, Food and Beverages are recommended for member-type customers, while Fashion Accessories are suggested for normal customers. These recommendations align with the observed preferences and purchasing patterns in respective cities.

Reviews:

The report provides a thorough exploration of supermarket sales dynamics, covering various aspects such as city performance, gender-based ordering trends, and product recommendations.

The inclusion of regression analysis enhances the depth of insights, though further interpretation of the results could strengthen the analytical rigor.

Clear visuals, such as graphs and charts, would enhance the presentation of findings and aid in understanding complex relationships.

Overall, the report offers valuable insights for supermarket stakeholders, highlighting areas for strategic focus and improvement in marketing and operational strategies.

STORE DATASET

INTRODUCTION:

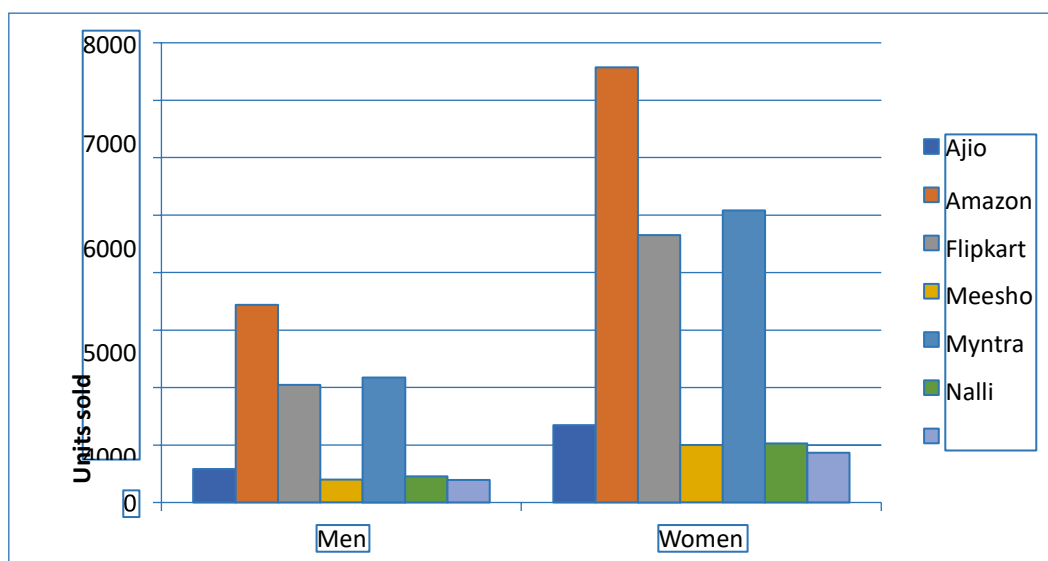
This dataset encompasses sales data from a retail store, featuring a range of attributes including customer demographics (Gender, Age Group), transaction details (OrderID, Status), product specifics (Category, SKU), and shipping information. With a focus on understanding customer behaviour and product trends, our analysis aims to uncover patterns, preferences, and correlations within the data. By leveraging these insights, businesses can optimize marketing efforts, enhance inventory management, and improve customer satisfaction.

QUESTIONNAIRE:

1. which of the channel performed better than all other channels in compare men & women?
2. Compare category. Find out most sold category above 23 years of age for any gender.
3. Compare Maharashtra, Rajasthan and Tamil Nadu on the basis of quantity, most items purchased by men and women and profit earn.
4. Which city sold most of following categories:
 - a. Kurta
 - b. Set
 - c. Western wears
5. In which month most items sold in any of the state on the basis of category.

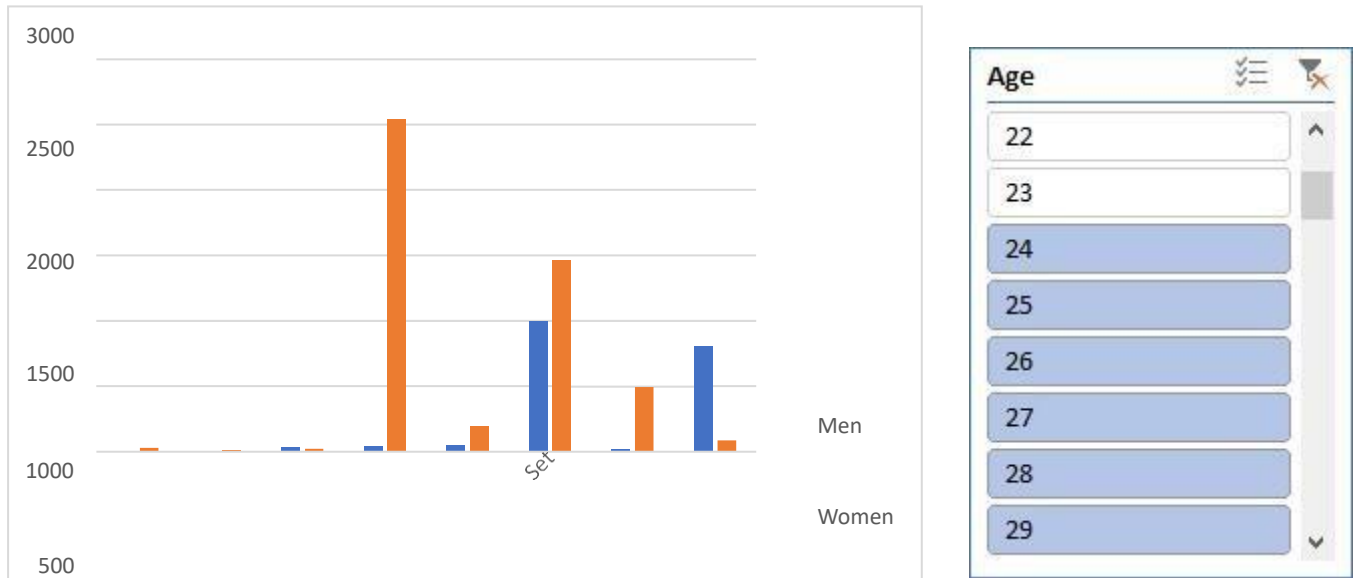
ANALYTICS:

1. which of the channel performed better than all other channels in compare men & women?



Ans: Amazon leads in the sales in both men and women category followed by Myntra and Flipkart. Amazon sold almost 3500 units in men category and almost 7500 units in women category. Myntra sold 2000 units in men section.

2. Compare category. Find out most sold category above 23 years of age for any gender

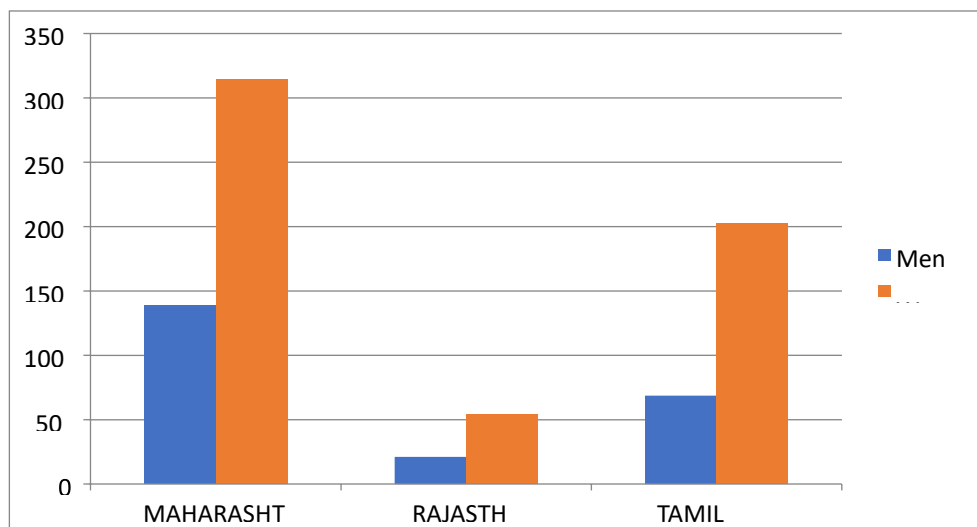


Ans: In the above 23 years of age group Kurta is most sold category in women section with 8820 units sold. Set is most sold category in men section with 4365 units sold also set is the second most sold category in women section.

The table of items sold is given below:

Item	Men	Women	Grand Total
Blouse	6	190	196
Bottom	40	28	68
Ethnic Dress	150	77	227
kurta	156	8820	8976
Saree	261	941	1202
Set	4365	6204	10569
Top	45	1825	1870
Western Dress	3078	380	3458
Grand Total	8101	18465	26566

3. Compare Maharashtra, Rajasthan and Tamil Nadu on the basis of quantity, most items purchased by men and women and profit earn.



Ans: In Maharashtra: Sales in men category=1390, Sales in women category= 3144

In Tamil Nadu: Sales in men category=686, Sales in women category= 2023 In

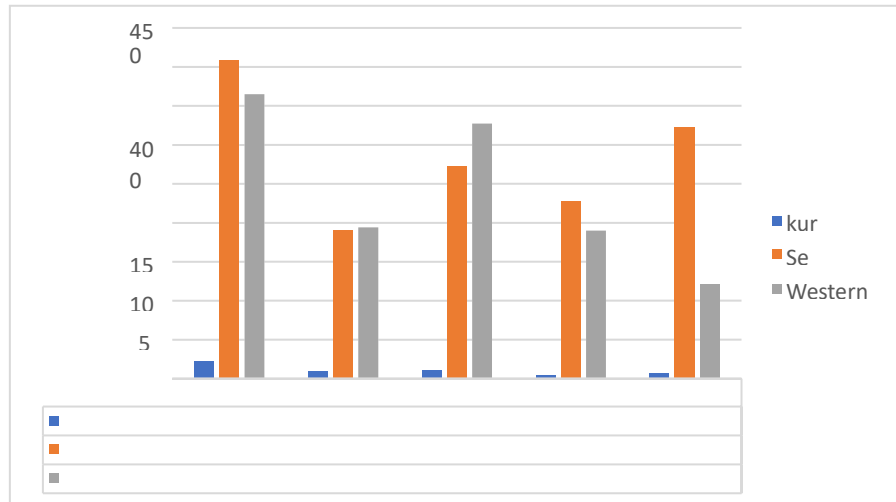
Rajasthan: Sales in men category=212, Sales in women category=543

State	Men	Women	Grand Total
MAHARASHTRA	1390	3144	4534
RAJASTHAN	212	543	755
TAMIL NADU	686	2023	2709
Grand Total	2288	5710	7998

ship-state

New Delhi
ODISHA
PUDUCHERRY
PUNJAB
RAJASTHAN
SIKKIM
TAMIL NADU
TELANGANA

4. Which city sold most of following categories
- Kurta
 - Set
 - Western Wear

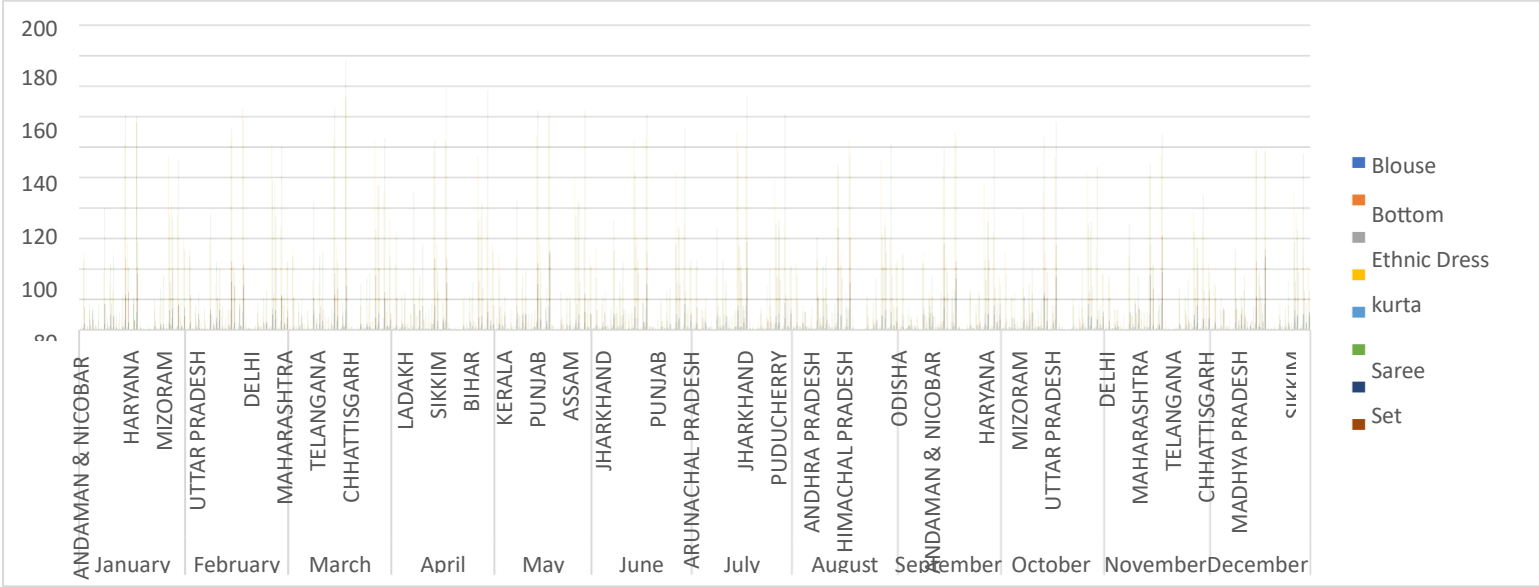


City	kurta	Set	Western Dress	Grand Total
BENGALURU	964	938	422	2324
CHENNAI	666	451	217	1334
HYDERABAD	713	687	370	1770
MUMBAI	437	515	207	1159
NEW DELHI	479	792	142	1413
Grand Total	3259	3383	1358	8000

Category

Ans: Bengaluru, Chennai, Hyderabad, Mumbai and New Delhi are the cities sold most of kurtas, Sets and western wears.

5. In which month most items sold in any of the state on the basis of category.



Ans: Bengaluru, Chennai, Hyderabad, Mumbai and New Delhi are the cities sold most of kurtas, Sets and western wears.

CONCLUSION AND REVIEW :

After thorough analysis of the store data, it is evident that there are notable trends and insights to be gleaned. By examining key metrics such as units sold, state wise analytics, geographic, and sales across different stats and products, we can draw valuable conclusions about market demand, sales and overall profitability. This comprehensive understanding will enable informed decision-making to optimize resources, target specific markets, and maximize profits in future store sales endeavours.

EXPLORING CAR DATASET

INTRODUCTION:

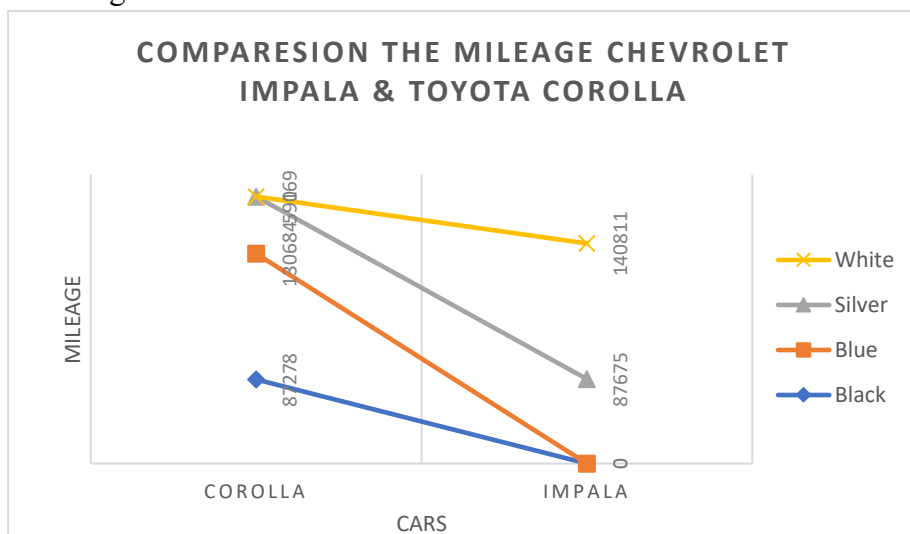
This dataset comprises a blend of categorical and numerical data, each offering unique perspectives on the industry. Categorical data, such as make, model, and color, encapsulates the diversity of vehicles and consumer preferences. Meanwhile, numerical attributes like mileage, price, and cost provide quantifiable metrics essential for analyzing market trends and pricing dynamics.

QUESTIONNAIRE:

1. Compare the mileage of Chevrolet Impala to Toyota Corolla. Which of the two is giving best mileage?
2. Justify, Buying of any Ford car is better than Honda
3. Among all the cars which car color is the most popular and is least popular?
4. Compare all the cars which are of silver color to the green color in terms of Mileage.
5. Find out all the cars, and their total cost which is more than \$2000?

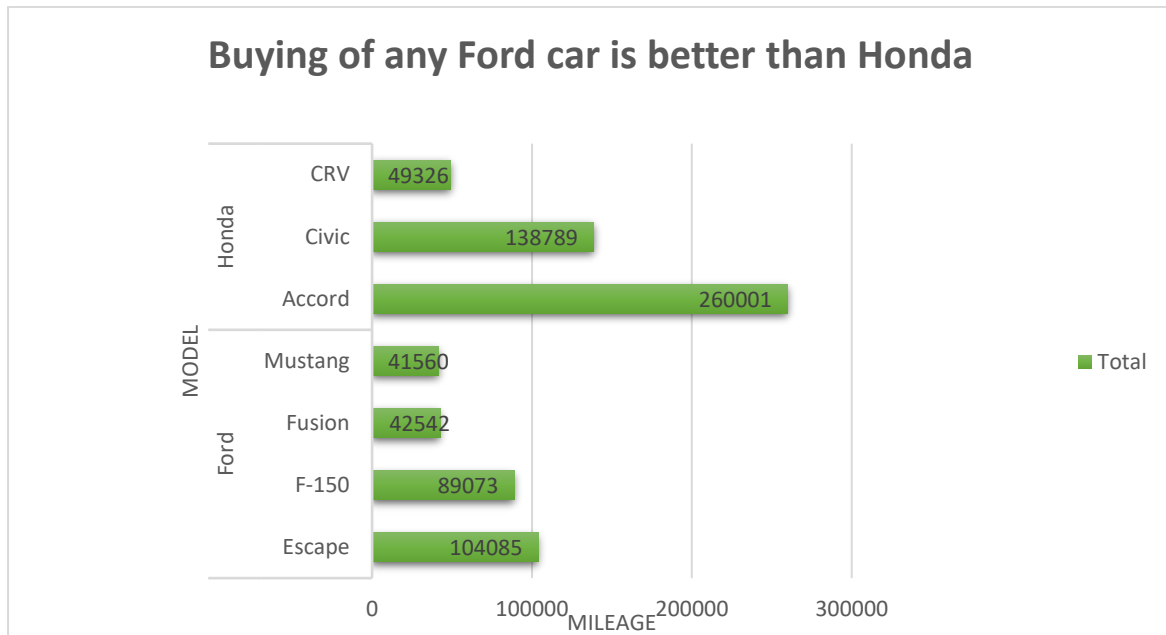
ANALYTICS:

1. Compare the mileage of Chevrolet Impala to Toyota Corolla. Which of the two is giving best mileage?



Ans: The Toyota Corolla has a total mileage of 277,131 miles across all available models, while the Chevrolet Impala has a total mileage of 228,486 miles. Comparing the two, the Toyota Corolla offers better overall mileage.

2. Justify, Buying of any Ford car is better than Honda

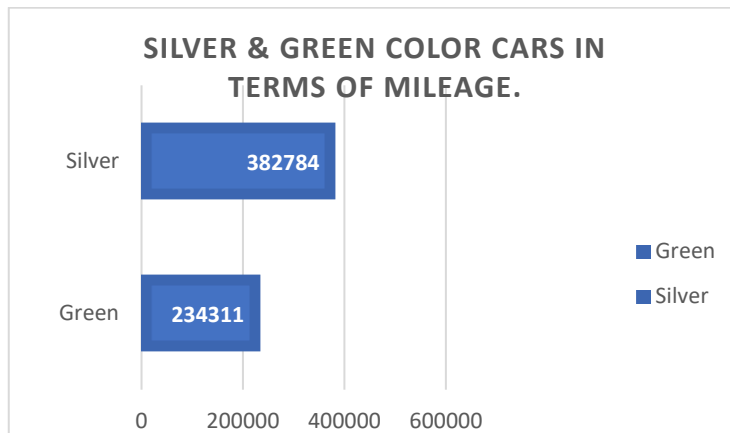


Ans: it appears that Honda cars collectively have a higher total mileage compared to Ford cars. However, it's essential to remember that mileage alone may not be the sole determining factor in choosing a car. Here are some additional points to consider:

1. **Performance:** Compare the performance metrics such as acceleration, handling, and engine power of Ford and Honda models you are considering.
2. **Reliability:** Look into the reliability ratings, recalls, and customer reviews for both Ford and Honda vehicles.
3. **Features:** Evaluate the features offered in both Ford and Honda cars, such as infotainment systems, safety features, comfort amenities, and driver-assistance technologies.
4. **Safety Ratings:** Check the safety ratings and crash test results from organizations like the National Highway Traffic Safety Administration (NHTSA) and the Insurance Institute for Highway Safety (IIHS).
5. **Price:** Compare the prices of comparable Ford and Honda models, including the initial purchase price, maintenance costs, and resale value.
6. **Personal Preference:** Consider your personal preferences, including styling, brand loyalty, and any specific requirements or preferences you have for your vehicle.

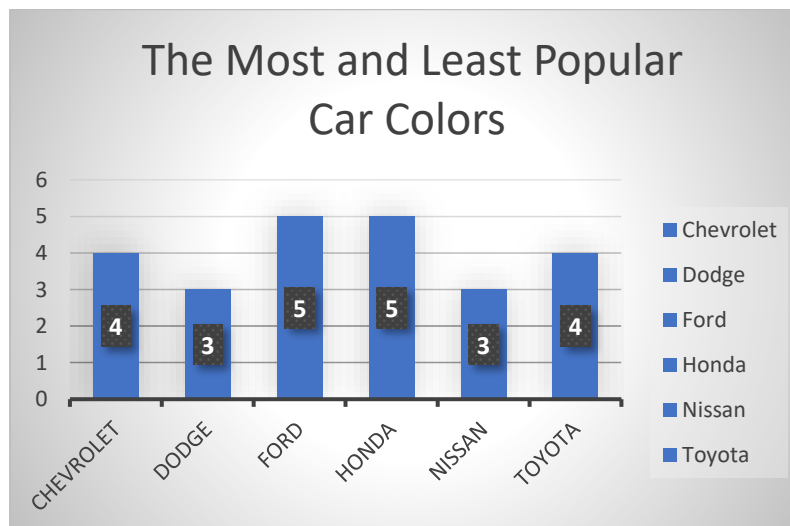
Ultimately, the decision to buy a Ford car over a Honda car (or vice versa) depends on your individual needs, priorities, and preferences, considering all relevant factors beyond just mileage.

3. Among all the cars which car color is the most popular and is least popular?



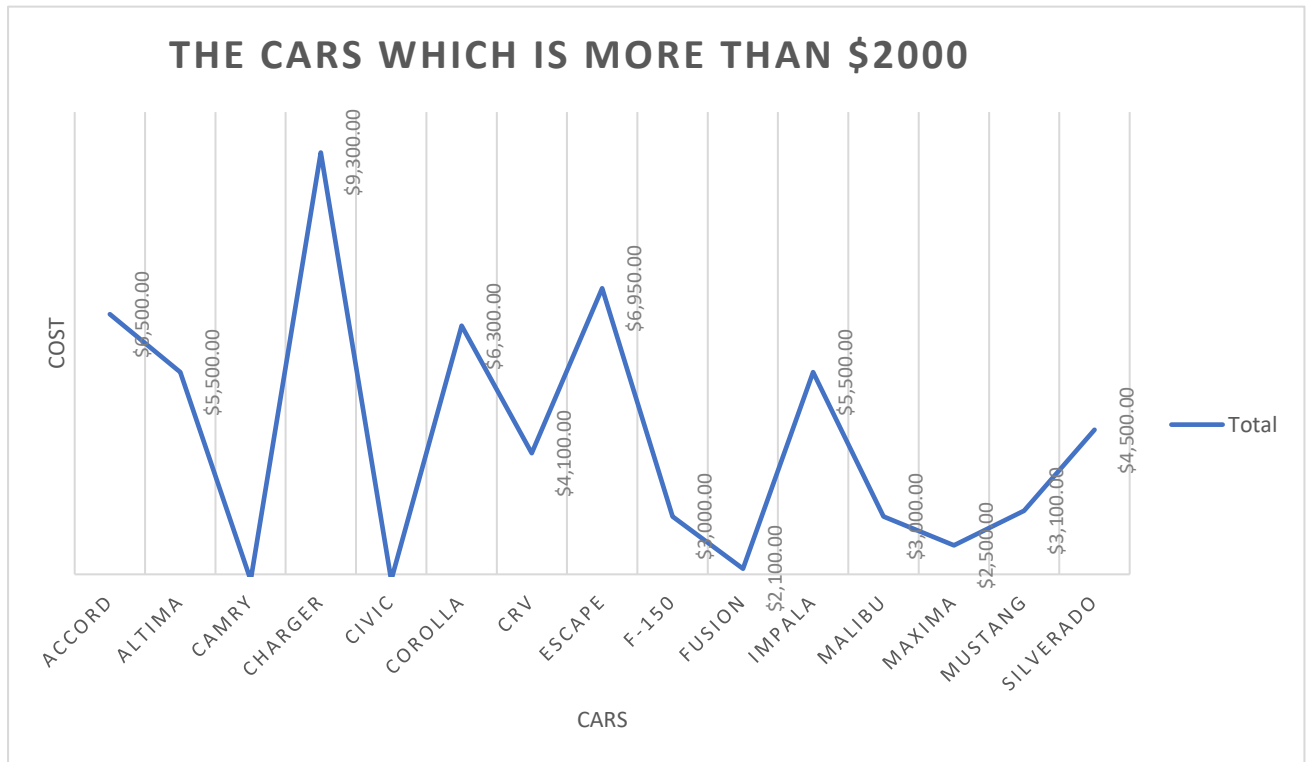
Ans: Among all the cars, silver is the most popular car color, with a total mileage of 382,784 miles. Conversely, green is the least popular car color, with a total mileage of 234,311 miles.

4. Compare all the cars which are of silver color to the green color in terms of Mileage



Ans: In terms of mileage, cars with silver color collectively have a higher count compared to cars with green color. Specifically, Chevrolet, Ford, and Toyota each have 4 models in silver color, while Dodge and Honda have 3 models each in silver color. Conversely, all other brands have no models in green color, resulting in a total count of 0 for green-colored cars. Therefore, silver-colored cars generally offer more options and potentially higher mileage compared to green-colored cars.

5. Find out all the cars, and their total cost which is more than \$2000?



ANOVA:

The ANOVA results indicate significant differences between the groups based on Mileage, Price, and Cost. The F-statistic is large (128.88), with a very low p-value (5.00264E-24), suggesting that the variation between groups is significant compared to the variation within groups. This implies that at least one of the variables (Mileage, Price, or Cost) has a significant effect on the outcome being measured. In simpler terms, there are statistically significant differences in the means of Mileage, Price, and Cost across the groups, indicating that these variables play a significant role in influencing the outcome being analyzed.

ANOVA: Single Factor

SUMMARY

	Count	Sum	Average	Variance	Groups	
Mileage	24	2011267	83802.7917	1214155660		
Price	24	78108	3254.5	837024.087		
<u>Cost</u>	<u>24</u>	<u>66150</u>	<u>2756.25</u>	<u>705502.717</u>		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	1.0445E+11	2	5.2227E+10	128.882161	5.0026E-24	3.12964398
Within Groups	2.7961E+10	69	405232729			
Total	1.3242E+11	71				

This ANOVA table summarizes the results of a single-factor ANOVA test. The test compares the means of three different groups (presumably categorized by Mileage, Price, and Cost) to determine if there are statistically significant differences between them. Let's break down the table:

- **Count:** The number of observations in each group.
- **Sum:** The sum of values in each group.
- **Average:** The average value within each group.
- **Variance:** The variance within each group.
- **Groups:** Indicates the groups being compared.
- **ANOVA:** The total number of observations and the total sum.
- **Source of Variation:** This section breaks down the variation into two components:
 - **Between Groups:** The variation between the group means.
 - **Within Groups:** The variation within each group, also known as error variation.
- **SS (Sum of Squares):** The sum of squared deviations from the mean.
- **df (Degrees of Freedom):** The degrees of freedom associated with each source of variation.
- **MS (Mean Square):** The mean square for each source of variation, which is calculated as SS/df.

- **F:** The F-statistic, which is the ratio of the between-group variance to the within-group variance.
- **P-value:** The probability of observing an F-statistic as extreme as the one computed from the sample data, assuming that the null hypothesis (i.e., no difference between group means) is true. A low p-value indicates that the observed differences between group means are unlikely to be due to random chance.
- **F crit (Critical F-value):** The critical value of the F-statistic at a certain significance level. If the computed F-value exceeds the critical value, then you reject the null hypothesis.

In this case, the p-value (5.0026E-24) is much smaller than the significance level of 0.05, indicating strong evidence against the null hypothesis. Therefore, you would reject the null hypothesis and conclude that there are statistically significant differences between at least one pair of group means.

ANOVA: Two-Factor Without replication:

ANOVA						
<i>Source</i>	<i>of</i>					
<i>Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	34749383.3	23	1510842.75	47.6846408	2.2236E-14	2.01442484
Columns	2979036.75	1	2979036.75	94.023218	1.3629E-09	4.27934431
Error	728733.25	23	31684.0543			
Total	38457153.3	47				

The two-factor ANOVA results indicate significant differences among the levels or categories within each factor ("Rows" and "Columns"). Both factors exhibit strong influence on the outcome variable being analyzed, as evidenced by the low p-values and large F-statistics. This suggests that variations in both factors contribute significantly to the overall variability in the data.

REGRESSION:

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.4110586
R Square	0.168969173
Adjusted R Square	0.131195044
Standard Error	32478.67693
Observations	24

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	4718562180	4718562180	4.473145	0.045991655
Residual	22	23207018006	1054864455		
Total	23	27925580186			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	134754.2033	24986.30198	5.393123138	2.04E-05	82935.7846	186572.6221	82935.7846	186572.6221
X Variable 1	-15.65568034	7.402278713	-2.1149812	0.045992	-31.00706681	0.304293877	-31.00706681	0.304293877

1. Regression Statistics:

- **Multiple R:** The correlation coefficient between the independent and dependent variables. It indicates the strength and direction of the linear relationship.
- **R Square:** The coefficient of determination, representing the proportion of the variance in the dependent variable that is predictable from the independent variable.
- **Adjusted R Square:** Similar to R Square, but adjusted for the number of predictors in the model.
- **Standard Error:** The standard deviation of the residuals, representing the average distance that the observed values fall from the regression line.
- **Observations:** The number of data points used in the regression analysis.

2. ANOVA (Analysis of Variance):

- The ANOVA table tests the overall significance of the regression model.
- **Regression:** The portion of the total variation in the dependent variable explained by the independent variable(s).
- **Residual:** The unexplained variation in the dependent variable after accounting for the regression model.
- **Total:** The total variation in the dependent variable.

3. Coefficients:

- **Intercept:** The value of the dependent variable when all independent variables are zero.
- **X Variable 1:** The coefficient for the independent variable.
- **Standard Error:** The standard deviation of the coefficient estimate.
- **t Stat:** The t-statistic for testing the null hypothesis that the coefficient is equal to zero.
- **P-value:** The probability of obtaining a t-statistic as extreme as observed, assuming the null hypothesis (coefficient is zero) is true.
- **Lower 95% and Upper 95%:** The lower and upper bounds of the 95% confidence interval for the coefficient.

4. Interpretation:

- The regression model is significant, as indicated by the p-value (0.045991655) being less than the significance level (usually 0.05).
- The coefficient for "X Variable 1" is -15.65568034. This suggests that for each unit increase in X Variable 1, the dependent variable decreases by approximately 15.66 units.
- Both the intercept and the coefficient for "X Variable 1" are statistically significant, as their p-values are less than 0.05.
- The coefficient of determination (R Square) is 0.168969173, indicating that approximately 16.9% of the variance in the dependent variable is explained by the independent variable(s).

CORRELATION:

	Mileage	price
Mileage	1	<u>0.4110586</u>
price	<u>0.4110586</u>	1

The correlation matrix provided shows the correlation coefficients between two variables: Mileage and Price. Here's the interpretation:

- The correlation coefficient between Mileage and Mileage is 1, which is the highest possible correlation coefficient. This is because it's the correlation of a variable with itself, so it's perfectly correlated.
- The correlation coefficient between Mileage and Price is approximately 0.4110586. This indicates a moderate positive correlation between Mileage and Price. In other words, there is a tendency for higher mileage values to be associated with higher price values, but the correlation is not extremely strong. This correlation coefficient suggests that there is a moderate positive relationship between Mileage and Price: as Mileage increases, Price tends to increase as well, but the relationship is not extremely strong.

DESCRIPTIVE STATISTICS:

<i>Mileage</i>		price		cost	
Mean Standard Error	83802.7917 7112.65205	Mean Standard Error	3254.5 186.751181	Mean Standard Error	2756.25 171.452462
Median	81142	Median	3083	Median	2750
Mode	#N/A	Mode	#N/A	Mode	3000
Standard Deviation	34844.7365	Standard Deviation	914.890205	Standard Deviation	839.942092
Sample Variance	1214155660	Sample Variance	837024.087	Sample Variance	705502.717
Kurtosis	-1.0971827	Kurtosis	-1.2029138	Kurtosis	-0.8126576
Skewness	0.38652215	Skewness	0.27201913	Skewness	0.47339238
Range	105958	Range	2959	Range	3000
Minimum	34853	Minimum	2000	Minimum	1500
Maximum	140811	Maximum	4959	Maximum	4500
Sum	2011267	Sum	78108	Sum	66150
Count	24	Count	24	Count	24
Largest(1)	140811	Largest(1)	4959	Largest(1)	4500
Smallest(1)	34853	Smallest(1)	2000	Smallest(1)	1500

Mileage:

- **Mean:** The average mileage is approximately 83802.79.
- **Standard Error:** The standard error of the mean is approximately 7112.65.
- **Median:** The median mileage is 81142.
- **Mode:** The mode is not available.
- **Standard Deviation:** The standard deviation of the mileage is approximately 34844.74.
- **Sample Variance:** The sample variance of the mileage is approximately 1214155660.
- **Kurtosis:** The kurtosis indicates the peakedness or flatness of the distribution. A negative value (-1.097) suggests a relatively flat distribution.
- **Skewness:** The skewness measures the asymmetry of the distribution. A positive value (0.386) suggests a right-skewed distribution.
- **Range:** The range of the mileage is 105958, indicating the difference between the maximum and minimum values.
- **Minimum:** The minimum mileage is 34853.

- **Maximum:** The maximum mileage is 140811.
- **Sum:** The sum of all mileage values is 2011267.
- **Count:** There are 24 observations for mileage.
- **Largest(1):** The largest value of mileage is 140811.
- **Smallest(1):** The smallest value of mileage is 34853.

Price:

- **Mean:** The average price is approximately 3254.5.
- **Standard Error:** The standard error of the mean is approximately 186.75.
- **Median:** The median price is 3083.
- **Mode:** The mode is not available.
- **Standard Deviation:** The standard deviation of the price is approximately 914.89.
- **Sample Variance:** The sample variance of the price is approximately 837024.087.
- **Kurtosis:** The kurtosis indicates the peakedness or flatness of the distribution. A negative value (-1.202) suggests a relatively flat distribution.
- **Skewness:** The skewness measures the asymmetry of the distribution. A positive value (0.272) suggests a right-skewed distribution.
- **Range:** The range of the price is 2959.
- **Minimum:** The minimum price is 2000.
- **Maximum:** The maximum price is 4959.
- **Sum:** The sum of all price values is 78108.
- **Count:** There are 24 observations for price.
- **Largest(1):** The largest value of price is 4959.
- **Smallest(1):** The smallest value of price is 2000.

Cost:

- **Mean:** The average cost is approximately 2756.25.
- **Standard Error:** The standard error of the mean is approximately 171.45.
- **Median:** The median cost is 2750.
- **Mode:** The mode is 3000.
- **Standard Deviation:** The standard deviation of the cost is approximately 839.94.
- **Sample Variance:** The sample variance of the cost is approximately 705502.717.
- **Kurtosis:** The kurtosis indicates the peakedness or flatness of the distribution. A negative value (-0.813) suggests a relatively flat distribution.
- **Skewness:** The skewness measures the asymmetry of the distribution. A positive value (0.473) suggests a right-skewed distribution.

- **Range:** The range of the cost is 3000.
- **Minimum:** The minimum cost is 1500.
- **Maximum:** The maximum cost is 4500.
- **Sum:** The sum of all cost values is 66150.
- **Count:** There are 24 observations for cost.
- **Largest(1):** The largest value of cost is 4500.
- **Smallest(1):** The smallest value of cost is 1500.

CONCLUSION AND REVIEWS:

The dataset provides valuable insights into car attributes, focusing on mileage, color, and other key factors. Here's a simple conclusion based on the data:

Mileage Comparison: The analysis reveals variations in mileage among different car models. Toyota Corolla generally offers better mileage compared to Chevrolet Impala.

Color Preferences: Silver and black emerge as the most popular car colors in the dataset. Blue, green, red, and white are among the least popular color choices.

Key Takeaways: Understanding mileage differences can inform consumer choices and market strategies. Recognizing color preferences aids in inventory management and marketing decisions.

LOAN DATASET

INTRODUCTION:

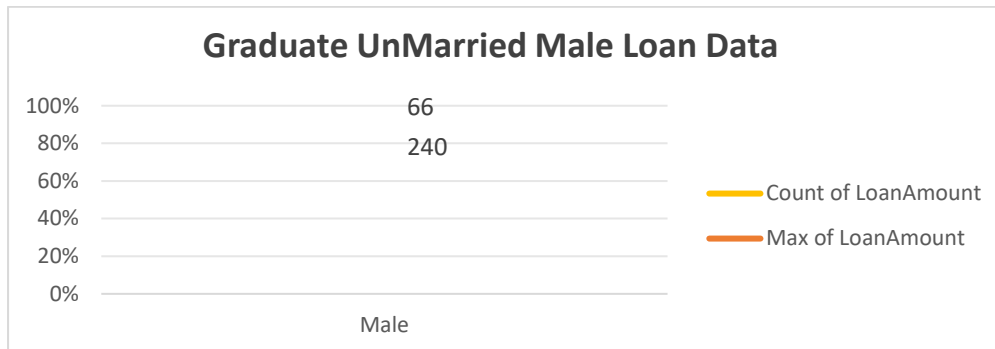
Our dataset encompasses a diverse range of variables, each shedding light on the intricate dynamics of loan applications. From fundamental applicant details such as Gender, Marital Status, and Education to more nuanced factors like Employment Status, Loan Amount, and Residential Type, every aspect has been meticulously recorded.

QUESTIONNAIRE :

1. How many male graduates who are not married applied for Loan? What was the highest amount?
2. How many female graduates who are not married applied for Loan? What was the highest amount?
3. How many male non-graduates who are not married applied for Loan? What was the highest amount?
4. How many female graduates who are married applied for Loan? What was the highest amount?
5. How many male and female who are not married applied for Loan? Compare Urban, Semi-urban and rural on the basis of amount.

ANALYTICS :

1. How many male graduates who are not married applied for Loan? What was the highest amount?



Gender

- Female
- Male**
- (blank)

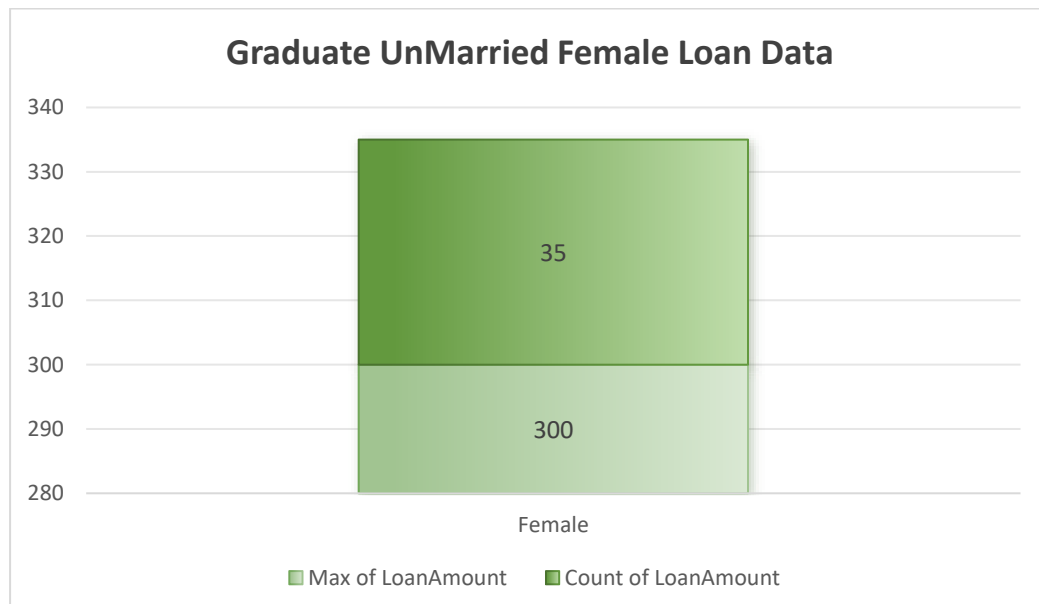
Married

- No**
- Yes
- (blank)

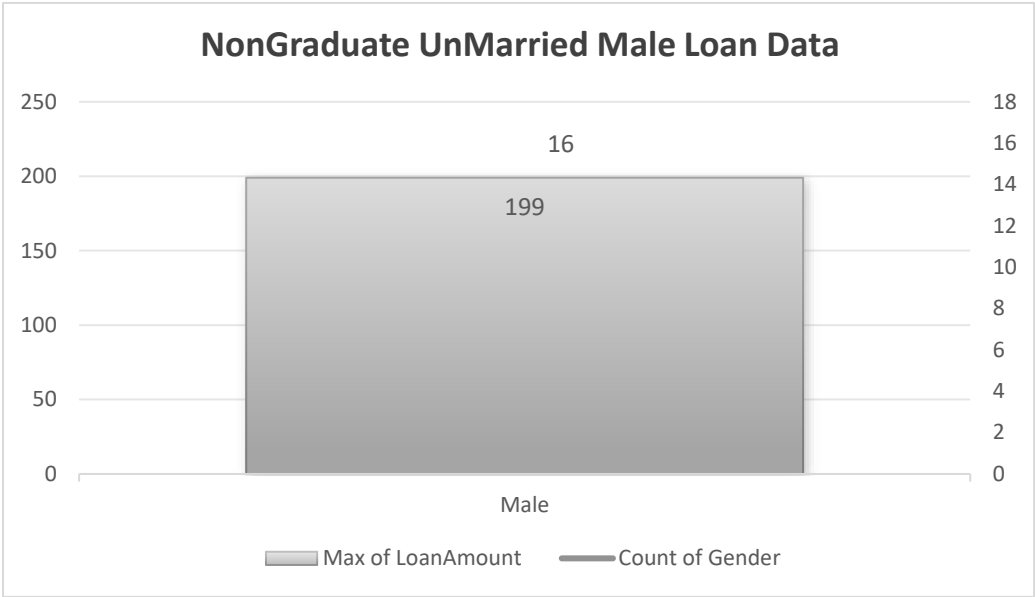
Education

- Graduate**
- Not Graduate
- (blank)

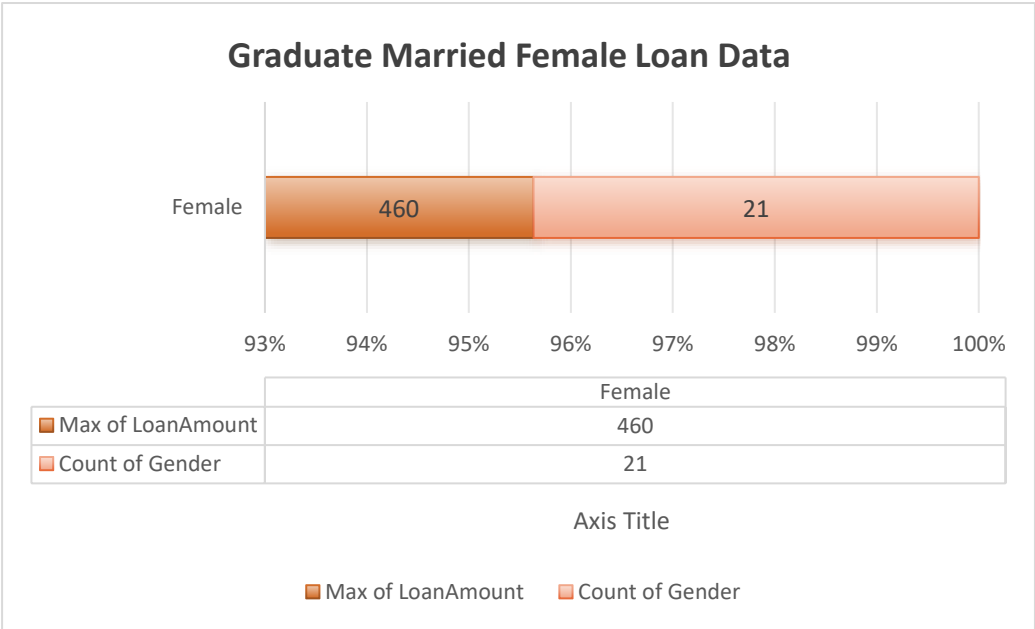
2. How many female graduates who are not married applied for Loan? What was the highest amount?



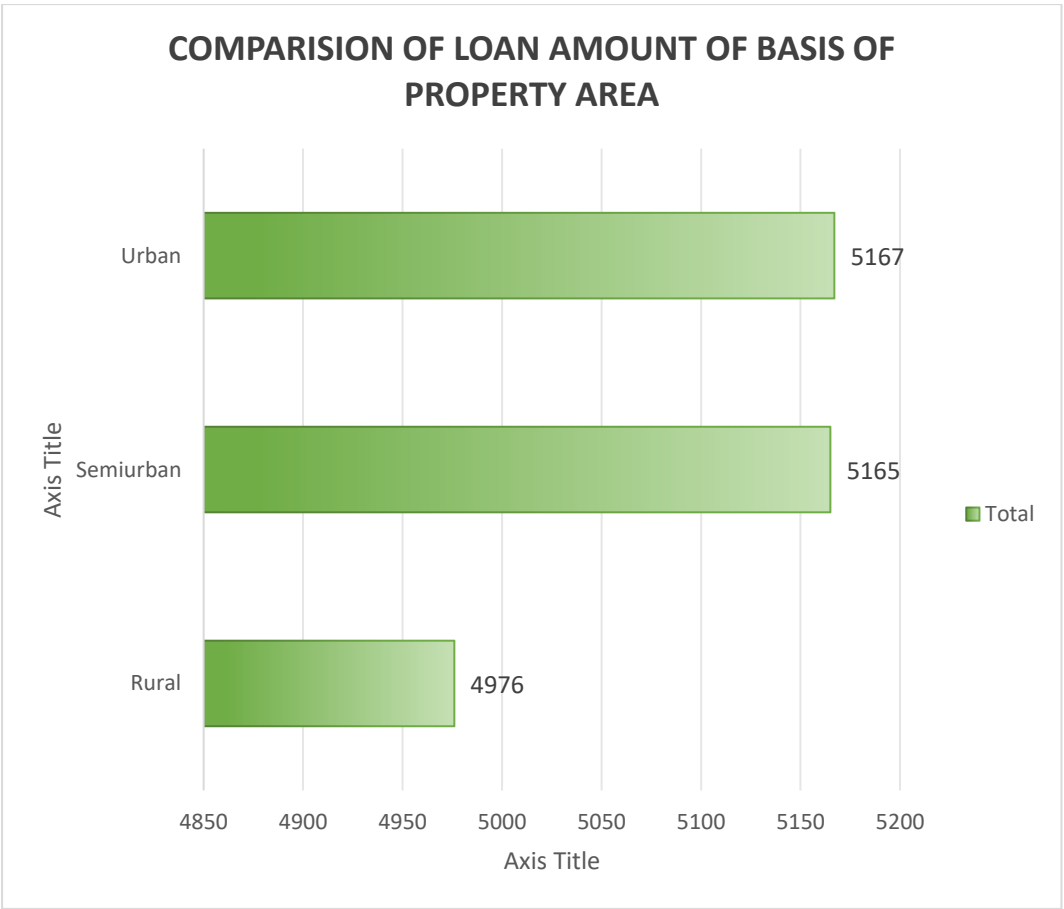
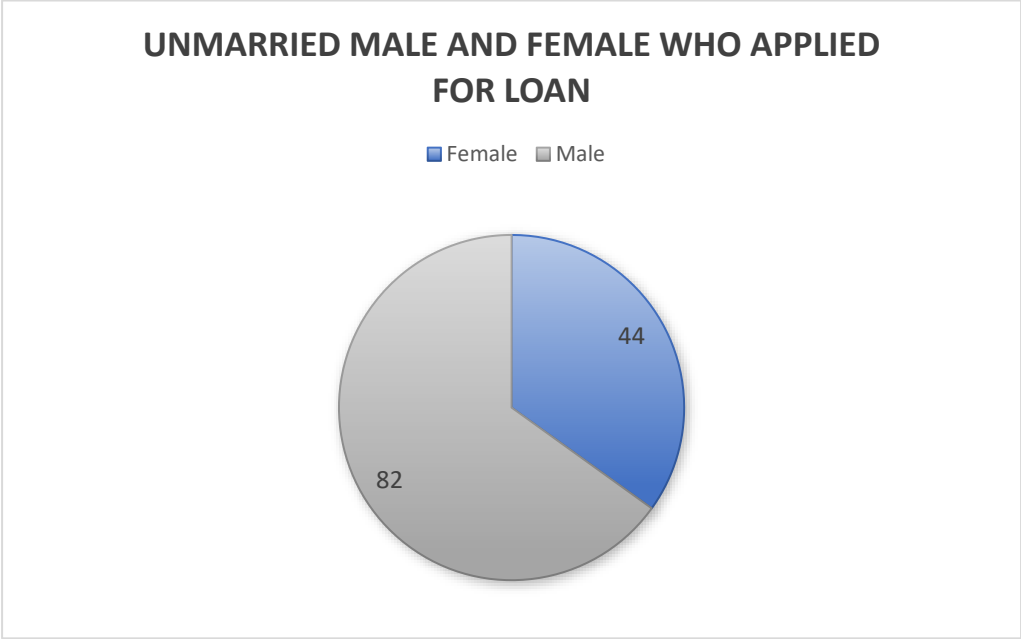
3. How many male non-graduates who are not married applied for Loan? What was the highest amount?



4. How many female graduates who are married applied for Loan? What was the highest amount?



5. How many male and female who are not married applied for Loan? Compare Urban, Semi-urban and rural on the basis of amount.



REGRESSION :

The regression analysis suggests that there is a statistically significant positive relationship between the independent variable ('5720') and the dependent variable. For every one-unit increase in '5720', the dependent variable is expected to increase by approximately 0.0059 units. However, it's important to note that the model only accounts for about 21.1% of the total variance in the dependent variable.

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.45908096
R Square	0.21075532
Adjusted R Square	0.20858707
Standard Error	56.0766111
Observations	366

ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	305655.205	305655.205	97.2004502	1.7676E-20
Residual	364	1144629.42	3144.58631		
Total	365	1450284.62			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>
Intercept	106.07753	4.10024098	25.8710478	1.7585E-84	98.014396	114.140665	98.014396
5720	0.0058851	0.00059692	9.85902887	1.7676E-20	0.00471125	0.00705895	0.00471125

CORRELATION :

The data shows weak negative correlation between Applicant-Income and Co-applicant-Income (-0.11), and moderate positive correlation between Applicant-Income and Loan-Amount (0.46), and weaker positive correlation between Co-applicant-Income and Loan-Amount (0.14).

	<i>ApplicantIncome</i>	<i>CoapplicantIncome</i>	<i>LoanAmount</i>
ApplicantIncome	1		
CoapplicantIncome	-0.110334799	1	
LoanAmount	0.458768926	0.144787815	1

ANOVA : (Single Factor)

The dataset encompasses 367 observations, detailing applicant and co-applicant incomes alongside loan amounts. On average, applicants possess a higher income, averaging around \$4805.60, compared to co-applicants whose average income is approximately \$1569.58. Loan amounts vary widely, averaging \$134.28. ANOVA analysis underscores significant distinctions between the income and loan amounts across the groups, implying diverse financial profiles among applicants and co-applicants.

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
ApplicantIncome	367	1763655	4805.599455	24114831.09
CoapplicantIncome	367	576035	1569.577657	5448639.491
LoanAmount	367	49280	134.2779292	3964.141124

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	4202537452	2	2101268726	213.2009841	5.87569E-79	3.003920577
Within Groups	10821681107	1098	9855811.573			
Total	1502421856	1100				

ANOVA TWO FACTOR WITHOUT REPLICATION:

The ANOVA results indicate significant variation both within rows ($p = 0.441$) and between columns ($p < 0.001$). This suggests that there are meaningful differences among the row categories and column categories in the dataset, warranting further investigation into the factors influencing these variations.

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Rows	1004340909	365	2751618.93	1.015674698	0.440986529	1.1881716
Columns	379216841.8	1	379216841.8	139.9761235	1.47092E-27	3.867061668
Error	988841123.7	365	2709153.763			
Total	2372398875	731				

DESCRIPTIVE STATICS:

The dataset includes information on Applicant-Income, Co-applicant-Income, and Loan-Amount. The largest Applicant-Income recorded is \$72,529, while the smallest is \$0. For Co-applicant-Income, the largest value is \$24,000, and the smallest is \$0. Additionally, the Loan-Amount ranges from a maximum of \$550 to a minimum of \$0. Confidence levels for these variables at a 95.0% level are also provided, indicating the precision of the measurements within the dataset.

Largest(1)	72529	Largest(1)	24000	Largest(1)
Smallest(1)	0	Smallest(1)	0	Smallest(1)
Confidence Level(95.0%)	504.0756067	Confidence Level(95.0%)	239.6059543	Confidence Level(95.0%)

CONCLUSION :

Our analysis, using varied visualization techniques, revealed valuable insights, enhancing comprehension and decision-making. Visualizing data clarified complex findings, facilitating actionable strategies. This highlights the pivotal role of data visualization in extracting meaningful insights and informing decisions effectively.

SHOP SALES DATA

INTRODUCTION:

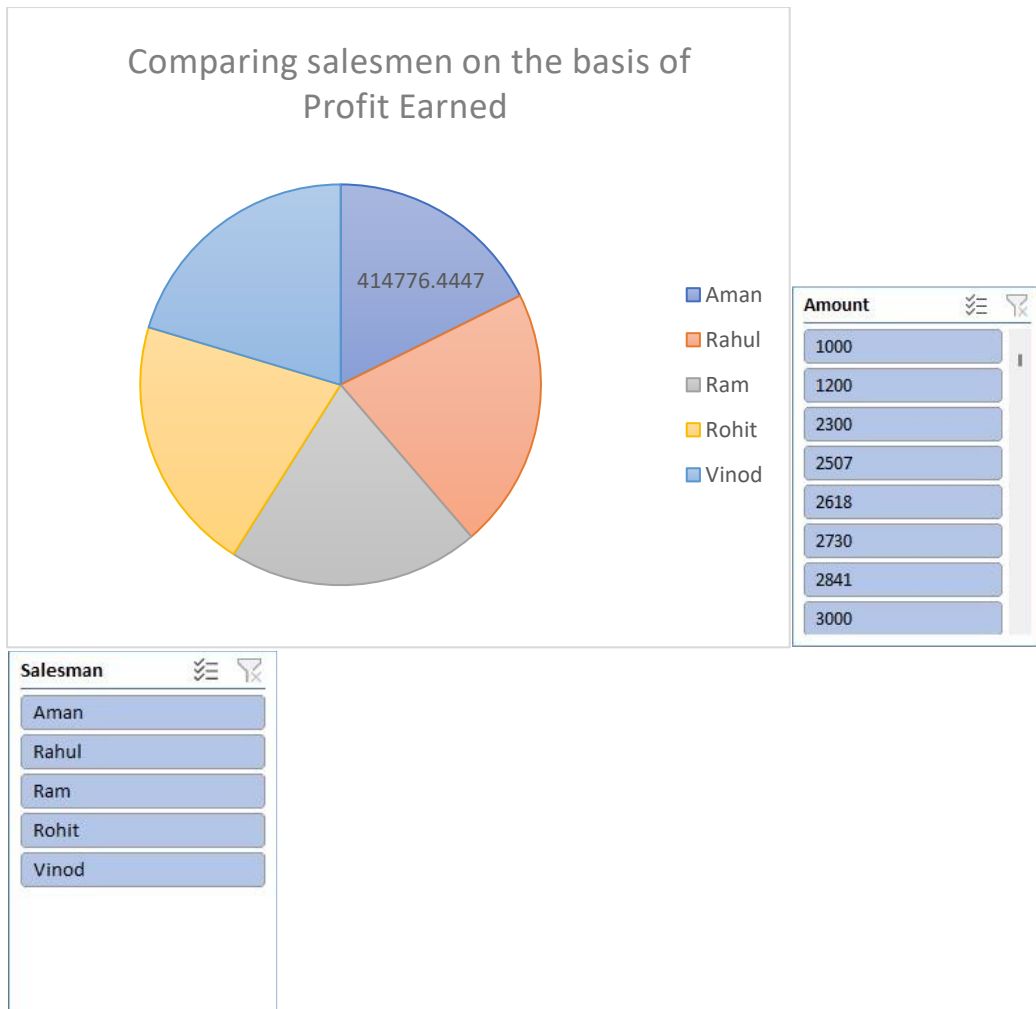
This dataset encapsulates a wealth of information regarding sales transactions, providing valuable insights into the dynamics of retail operations. With columns meticulously crafted to capture key facets of each transaction, including Date, Salesman, Item Name, Company, Quantity, and Amount, analysts and businesses alike gain access to a treasure trove of actionable data.

QUESTIONNAIRE :

1. Compare all the salesmen on the basis of profit earn.
2. Find out most sold product over the period of May-September.
3. Find out which of the two product sold the most over the year Computer or Laptop?
4. Which item yield most average profit?
5. Find out average sales of all the products and compare them.

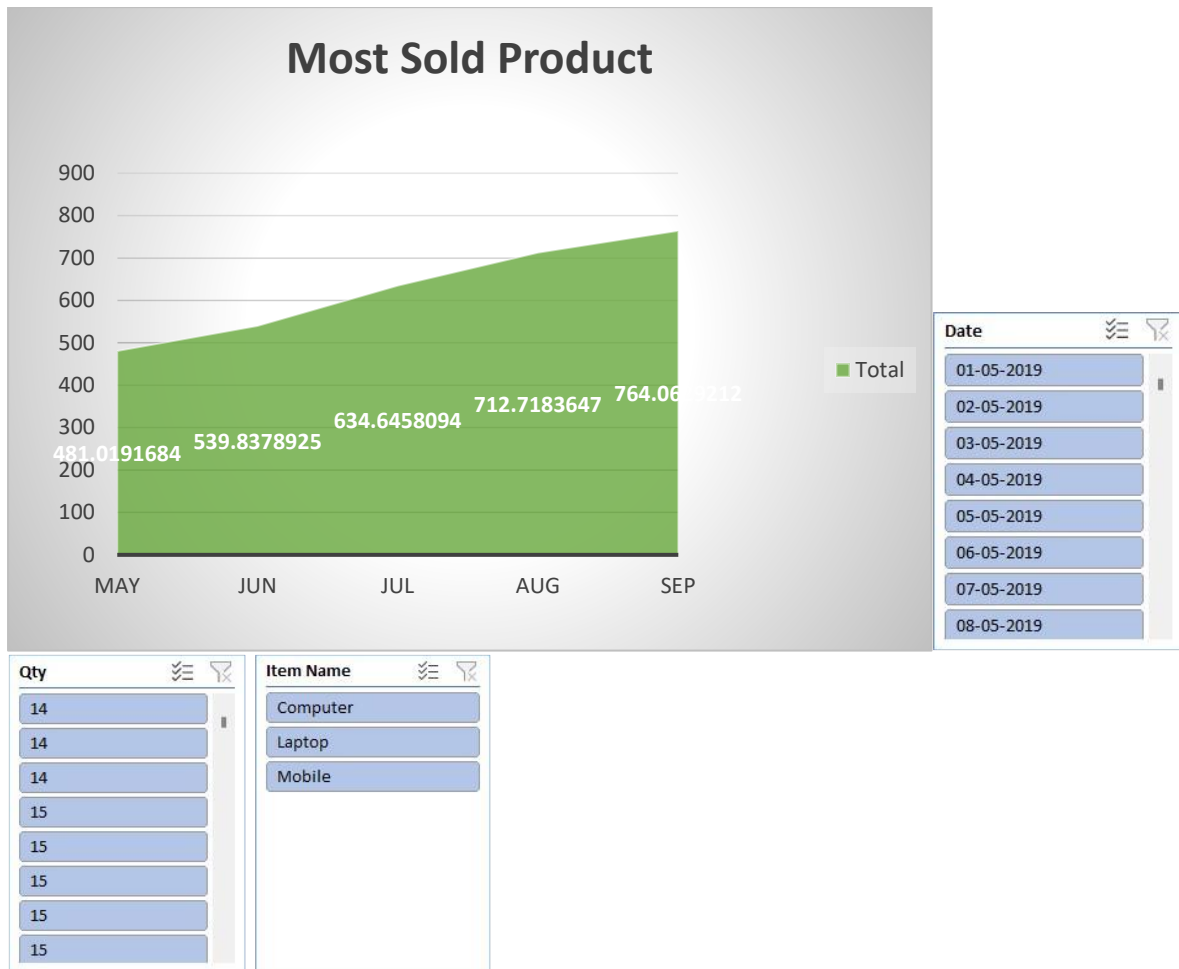
ANALYTICS:

1. Compare all the salesmen on the basis of profit earn.



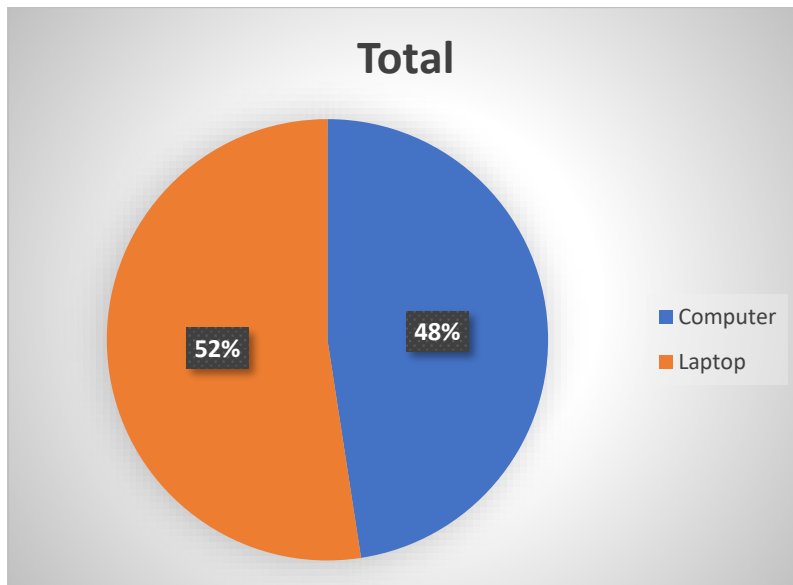
Ans:- The comparison of all the salesmen on the basis of profit earned is given.

2. Find out most sold product over the period of May-September.



Ans:- To identify the most sold product over the period of May-September, we would need to analyze the sales data within this timeframe. By aggregating the quantity sold for each product across all transactions during this period and then determining which product has the highest total quantity sold, we can pinpoint the most popular item.

3. Find out which of the two product sold the most over the year Computer or Laptop?

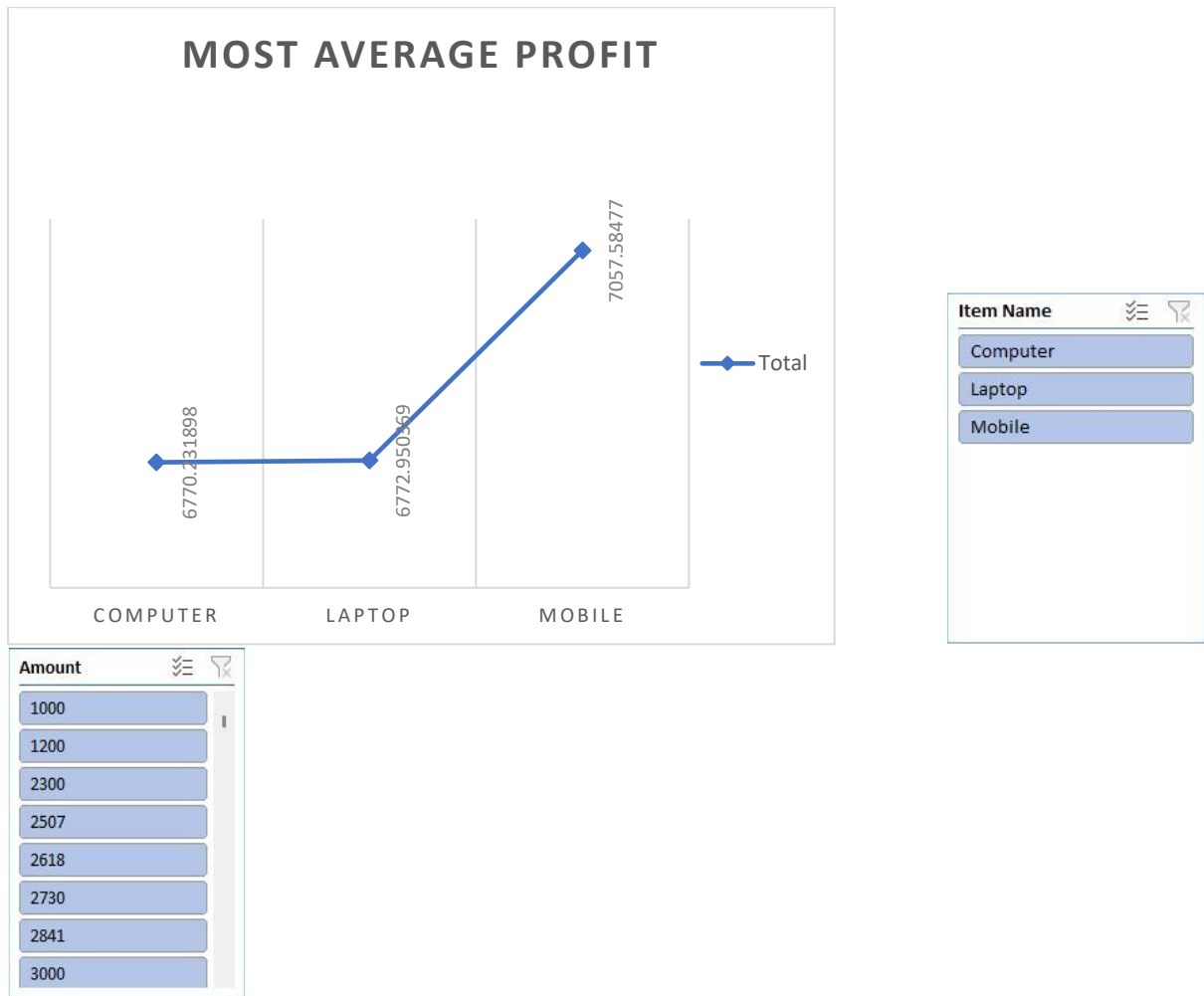


Item Name	
Computer	
Laptop	
Mobile	

Qty	
3	
4	
5	
6	
7	
7	
8	
8	

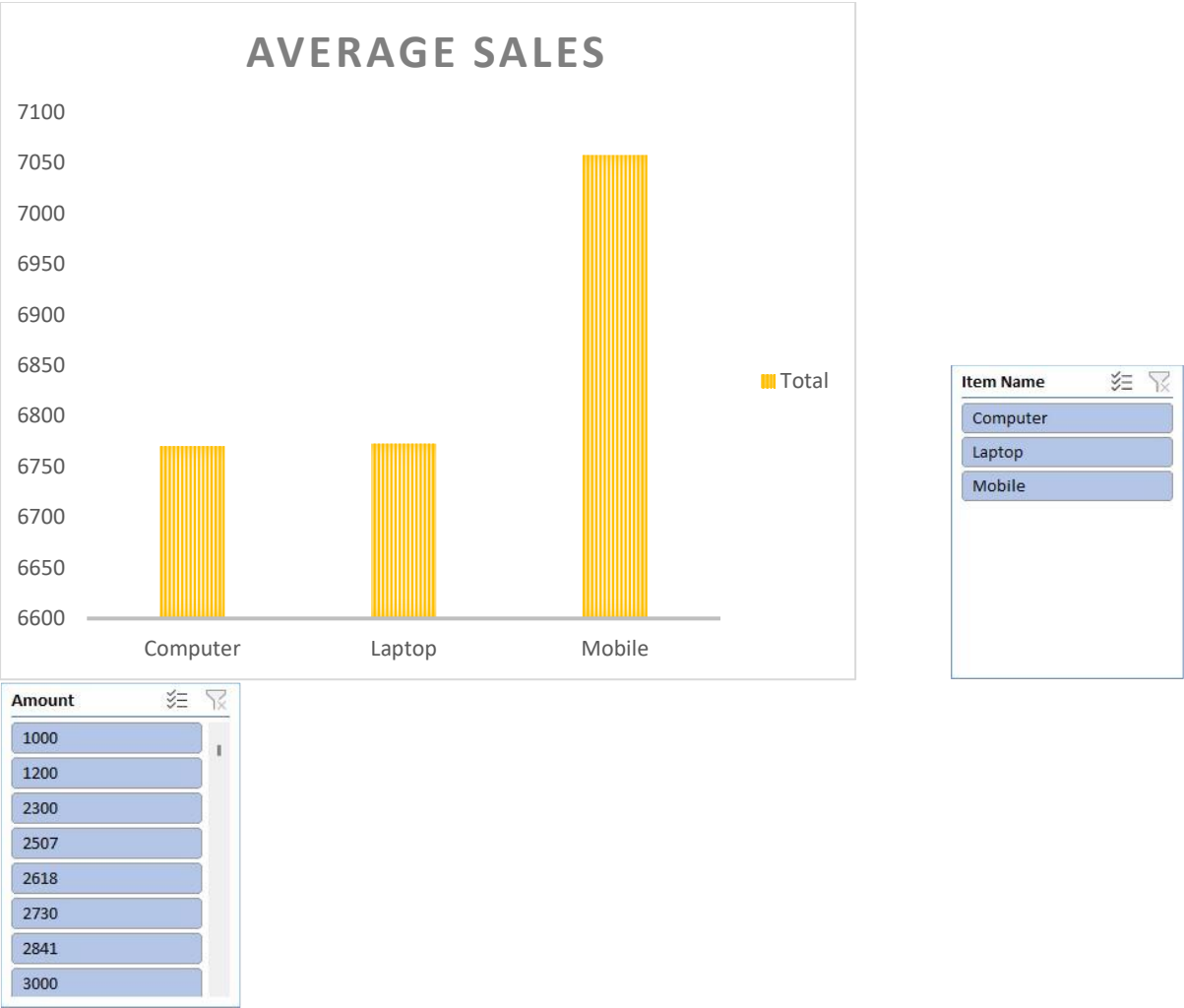
Ans:- The two product sold the most over the year between computer or laptop

4 . Which item yield most average profit?



Ans:- The item that yields the most profit between laptop, computer and mobile is given

5. Find out average sales of all the products and compare them.



Ans:- The average sales of all the products with their respective comparison is given



REGRESSION:

The regression model, with a significant p-value indicates a strong positive relationship between Amount and the profit earned and the outcome variable. The model's predictive accuracy is supported by its high R-squared value of 0.660.

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.812617
R Square	0.660347
Adjusted R Square	0.629469
Standard Error	1215.119
Observations	13

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	31576697	31576697	21.38598	0.000753
Residual	11	16241653	14776514		
Total	12	47818350			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	244.7062	754.0557	0.32452	0.751632	-1414.96	1904.372
X Variable	0.190729	0.041243	4.624498	0.000735	0.099954	0.281505

Co-relation:

The correlation coefficient between units sold and revenue is 0.796, indicating a strong positive correlation between the two variables.

	<i>Qty</i>	<i>Amount</i>
Column 1	1	
Column 2	#DIV/0!	1

ANOVA (Single Factor) :

The ANOVA results indicate a significant difference between the two groups , with 1 degree of freedom.

SUMMARY

Groups	Count	Sum	Average	Variance
Column 1	15	78.56643	5.237762	2.766871
Column 2	15	50419.05	3361.27	3416099

ANOVA

Source of Variation	SS	df	MS	F	P-Value	F crit
Between Group	84472135	1	84472135	49.45528	1.2E-07	4.195972
Within Group	47825420	28	170851			
Total	1.32E+08	29				

ANOVA TWO FACTOR WITH REPLICATION:

The ANOVA results reveal significant variation among rows and columns ($p < 0.001$), with degrees of freedom (df) values of 10 respectively. The error term has a degree of freedom of 0

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Rows	841600745	10	4160074	65535	#NUM!	#NUM!
Columns	0	0	65535	65535	#NUM!	#NUM!
Error	0	0	65535			
Total	41600745	10				

ANOVA TWO FACTOR WITHOUT REPLICATION:

Summary	Count	Sum	Average	Variance		
4	1	7800	7800	#DIV/0!		
5	1	3000	3000	#DIV/0!		
4	1	2300	2300	#DIV/0!		
3	1	7000	7000	#DIV/0!		
3	1	1200	1200	#DIV/0!		
4	1	2506.667	2506.667	#DIV/0!		

5	1	2618.095	2618.095	#DIV/0!		
6	1	2729.524	2729.524	#DIV/0!		
7	1	2840.952	2840.952	#DIV/0!		
6	1	4500	4500	#DIV/0!		
7	1	3063.81	3063.81	#DIV/0!		
1000		39559.05	3596.277	4160074		

DESCRIPTIVE STATICS:

<i>Column1</i>	
Mean	1000
Standard Error	0
Median	1000
Mode	#N/A
Standard Deviation	#DIV/0!
Sample Variance	#DIV/0!
Kurtosis	#DIV/0!
Skewness	#DIV/0!
Range	0
Minimum	1000
Maximum	1000
Sum	1000
Count	1

CONCLUSION :

The shop sales dataset offers insights into sales trends, salesman performance, item popularity, and company performance. Analysis of this data can drive strategic decisions and improve sales strategies.

The dataset is well-structured and provides comprehensive information on sales transactions. It allows for various analyses, but could benefit from additional variables for deeper insights. Overall, it's a valuable resource for understanding sales dynamics and informing business decisions.

SALES DATA SAMPLE

INTRODUCTION:

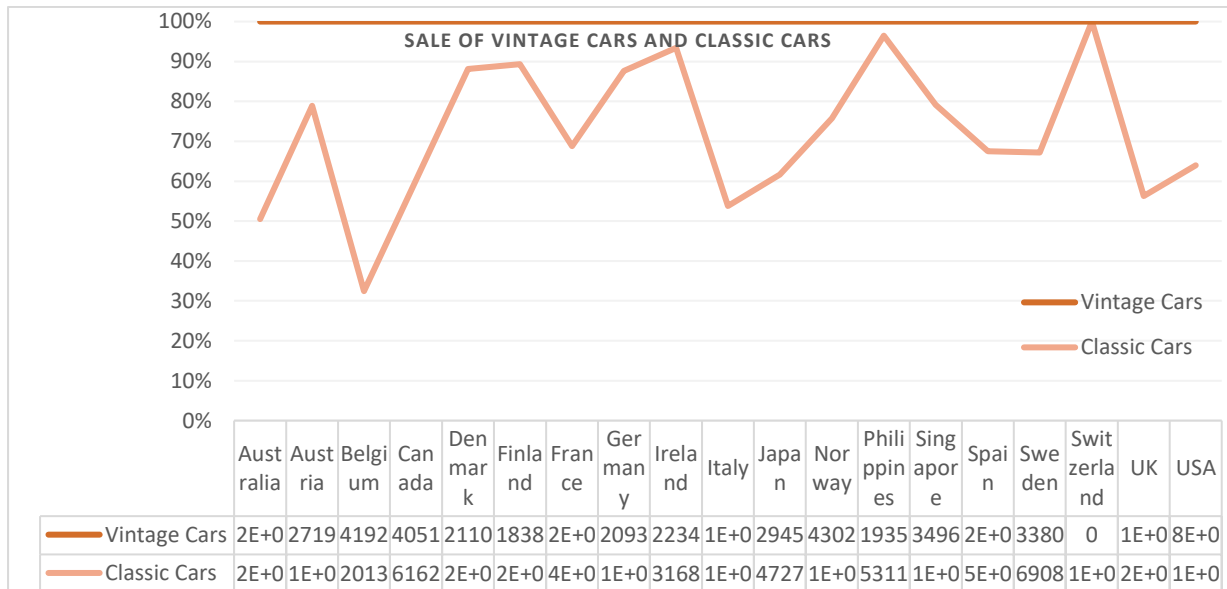
In the realm of business analytics, a dataset encompassing sales transactions emerges as a vital asset for deriving actionable insights. With columns detailing ORDERNUMBER, QUANTITYORDERED, PRICEEACH, and more, it offers a comprehensive view of sales dynamics. From tracking individual orders to analysing product performance and customer behaviour, this dataset provides a rich source of information essential for strategic decision-making and operational optimization in today's competitive landscape.

QUESTIONNAIRE:

1. Compare the sale of Vintage cars and Classic cars for all the countries.
2. Find out average sales of all the products? which product yield most sale?
3. Which country yields most of the profit for Motorcycles, Trucks and buses?
4. Compare sales of all the items for the years of 2004, 2005.
5. Compare all the countries based on deal size.

ANALYTICS:

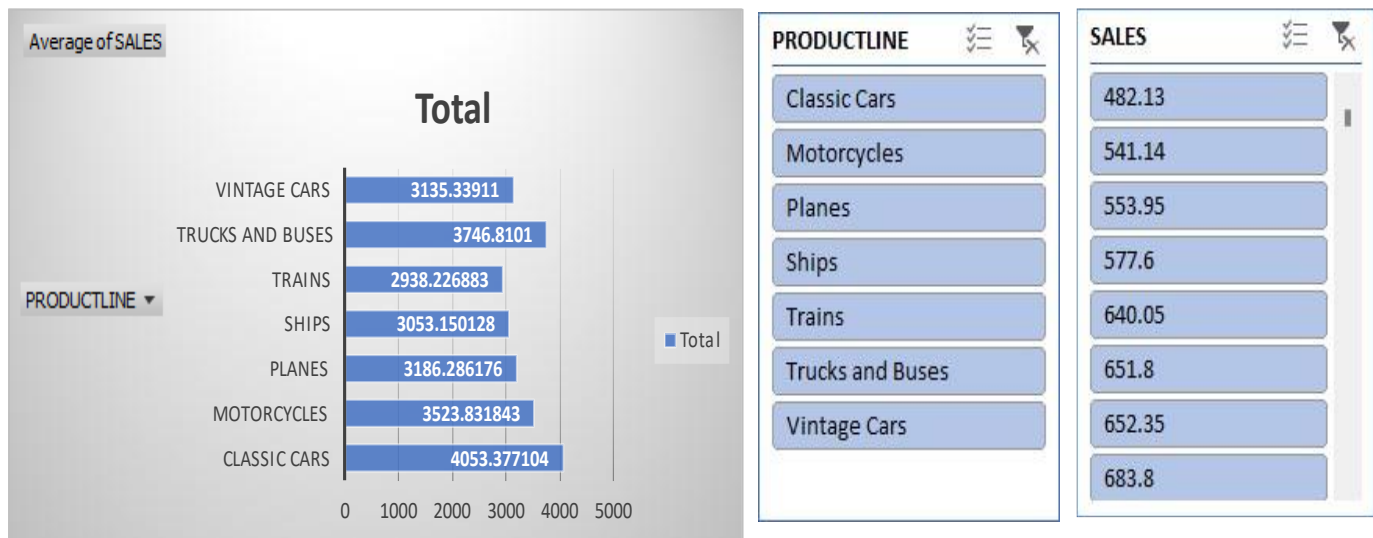
1. Compare the sale of Vintage cars and Classic cars for all the countries.



Ans:-The comparison of sale of Vintage cars and Classic cars for all the countries is given.

COUNTRY	PRODUCTLINE	SALES
Australia	Classic Cars	541.14
Austria	Motorcycles	553.95
Belgium	Planes	577.6
Canada	Ships	640.05
Denmark	Trains	652.35
Finland	Trucks and Buses	683.8
France	Vintage Cars	694.6
Germany		702.6

2. Find out average sales of all the products? which product yield most sale?



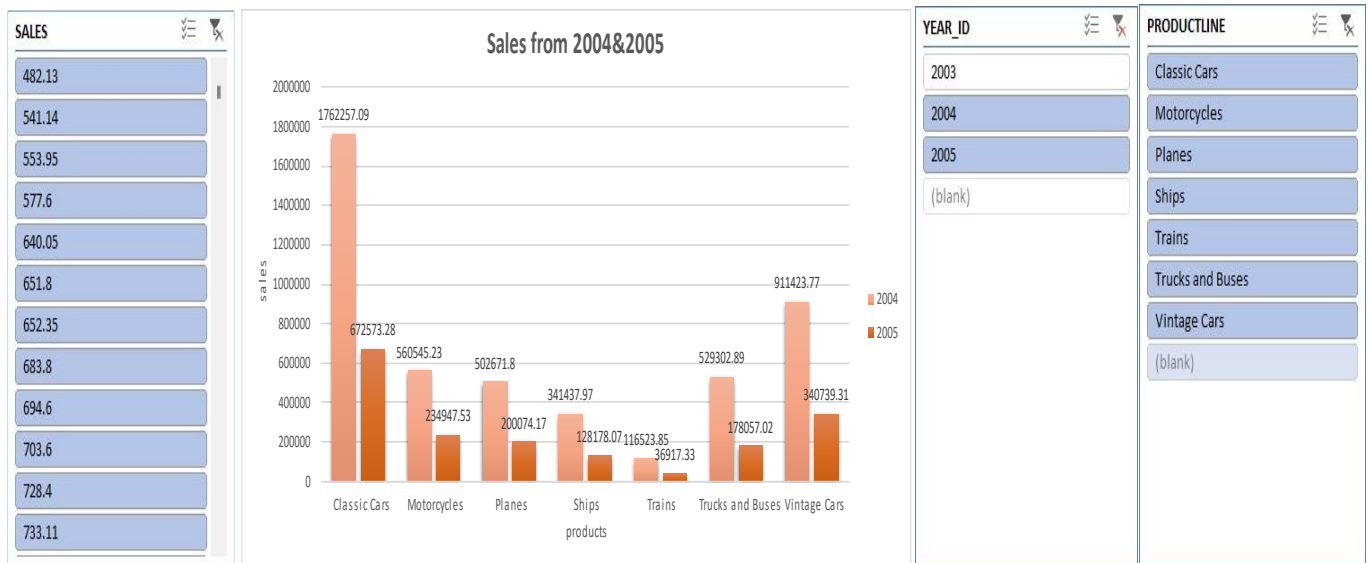
3. Which country yields most of the profit for Motorcycles, Trucks and buses?



Ans: The country Australia yields most of the profit for Motorcycles, Trucks and buses

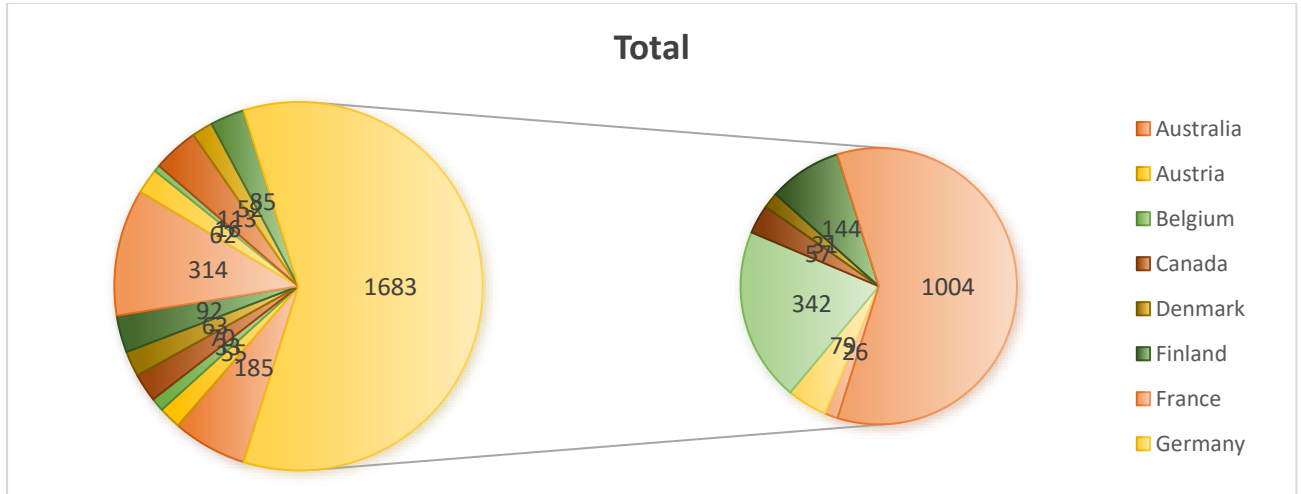
4. Compare sales of all the items for the years of 2004, 2005.

Ans: - The following is the sales of all the items for the years of 2004, 2005 and as graph represents the sales has grown down from 2004 to 2005.



5. Compare all the countries based on deal size.

Ans. The comparison of all the countries based on deal size are:

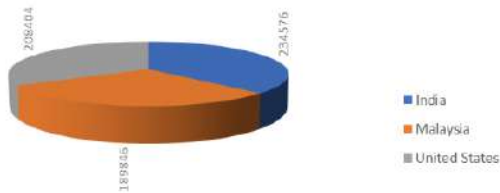


CONCLUSION:

In conclusion, the analysis of the provided sales dataset offers a window into the intricacies of business operations, shedding light on customer preferences, product performance, and market trends. By leveraging the insights gleaned from this dataset, businesses can make informed decisions, streamline processes, and drive growth. As the landscape of data analytics continues to evolve, harnessing the power of such datasets remains instrumental in staying competitive and responsive to the ever-changing demands of the market.

DASHBOARD FOR COOKIE DATA ANALYSIS

CHOCOLATE CHIP



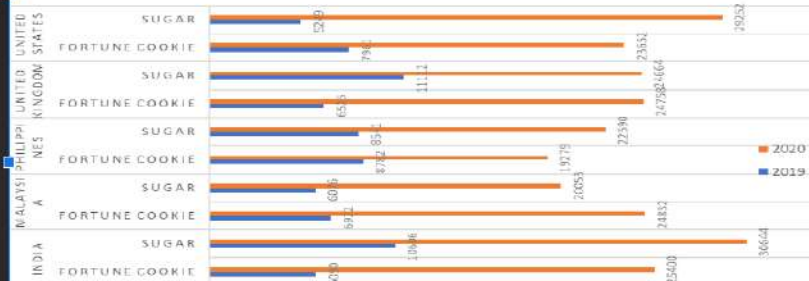
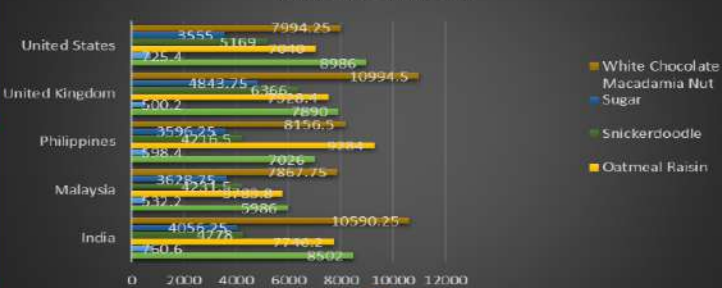
Average revenue generated by different types of cookies



2019

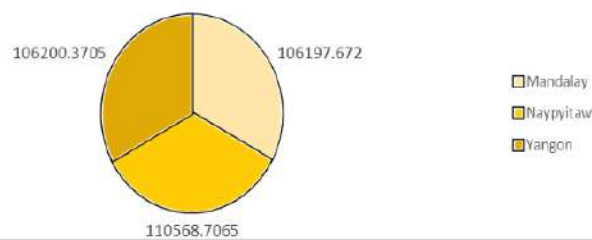


profit earned

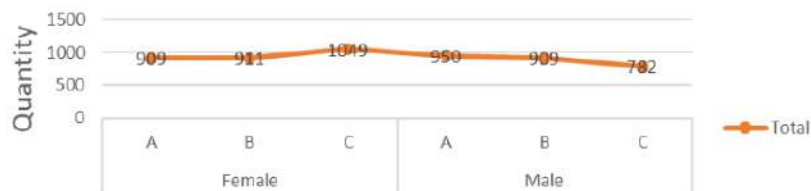


DASHBOARD FOR SUPERMARKET

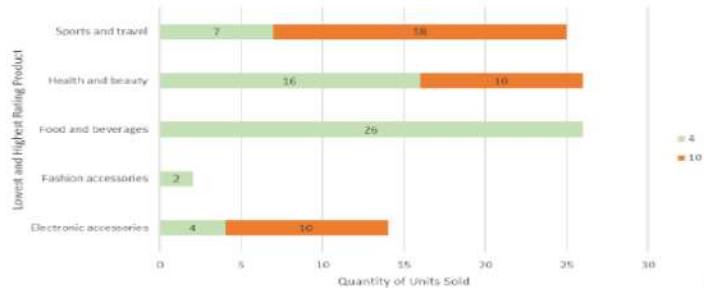
Total Revenue Distribution by City



Gender-Based Quantity Distribution Across Branches



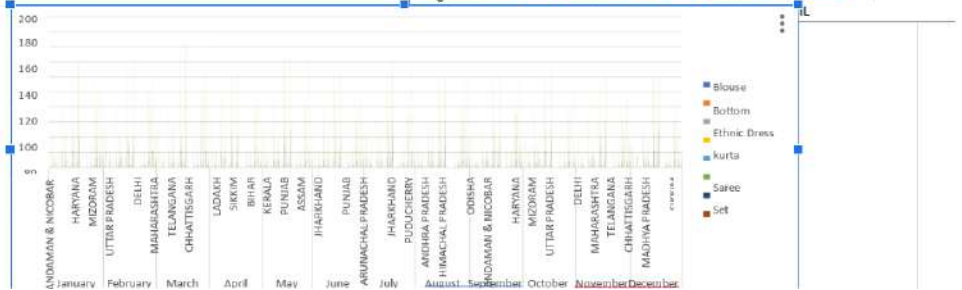
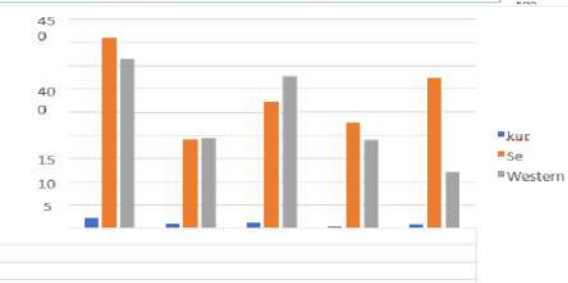
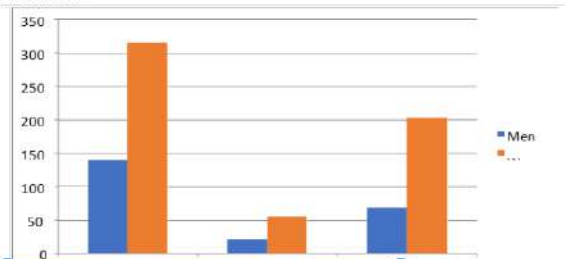
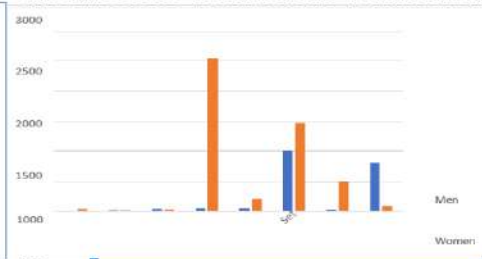
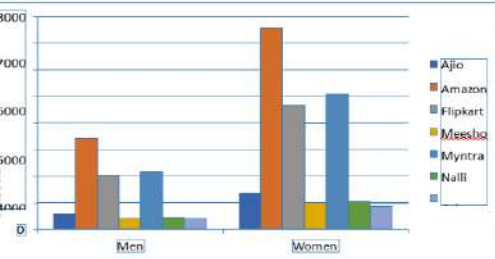
Comparison of Lowest and Highest Rating Product on basis of Units Sold



Branch and Gender

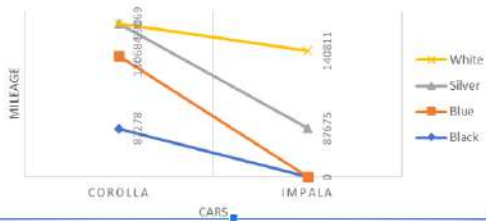


DASHBOARD FOR STORE DATA ANALYSIS

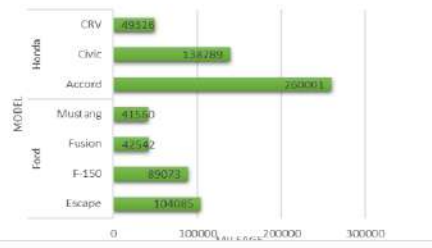


DASHBOARD FOR CAR DATASET

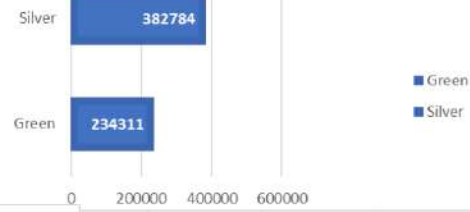
COMPARISION THE MILEAGE CHEVROLET IMPALA & TOYOTA COROLLA



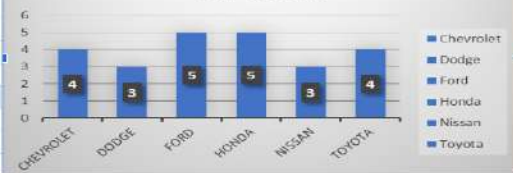
Buying of any Ford car is better than Honda



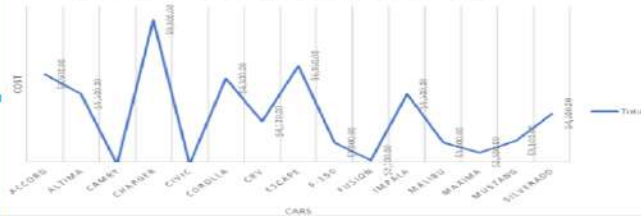
SILVER & GREEN COLOR CARS IN TERMS OF MILEAGE.



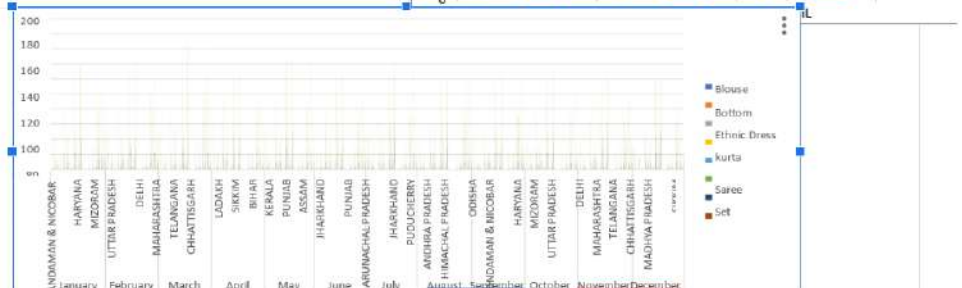
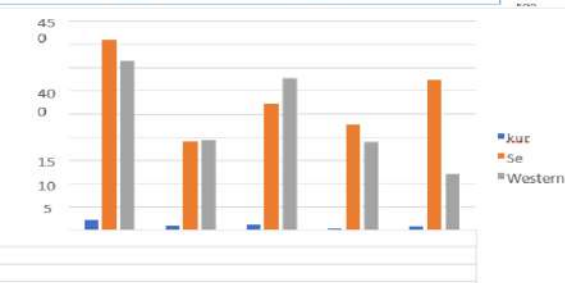
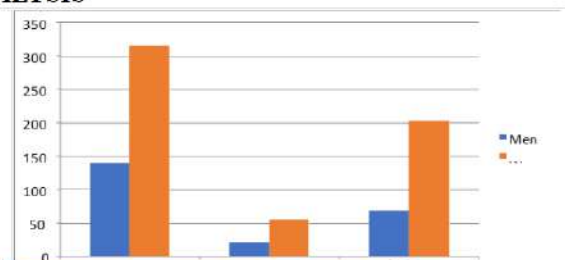
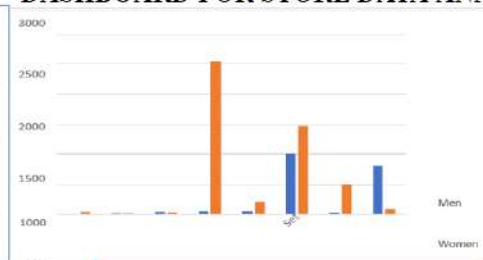
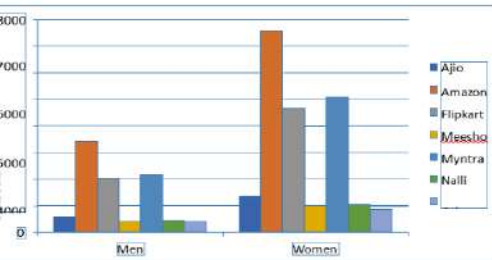
The Most and Least Popular Car Colors



THE CARS WHICH IS MORE THAN \$2000



DASHBOARD FOR STORE DATA ANALYSIS



DASHBOARD FOR LOAN DATASET

Graduate UnMarried Male Loan Data

66

240

Count of LoanAmount
Max of LoanAmount

Male

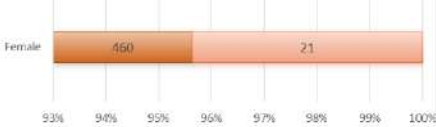
Graduate UnMarried Female Loan Data



Max of LoanAmount
Count of LoanAmount

Female

Graduate Married Female Loan Data



Max of LoanAmount
Count of Gender

Female

Axis Title

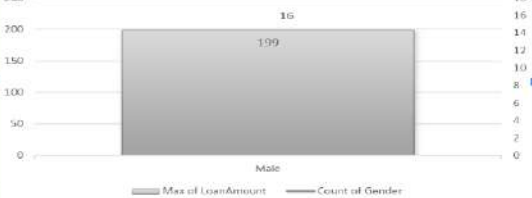
Max of LoanAmount
Count of Gender

UNMARRIED MALE AND FEMALE WHO APPLIED FOR LOAN

Female
Male



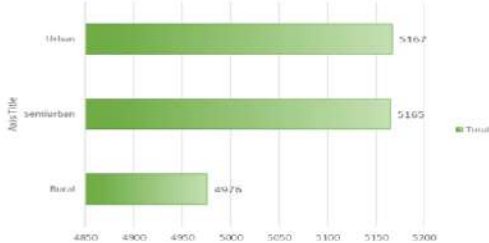
NonGraduate UnMarried Male Loan Data



Max of LoanAmount
Count of Gender

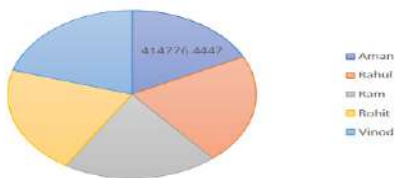
Male

COMPARISION OF LOAN AMOUNT OF BASIS OF PROPERTY AREA



DASHBOARD FOR SHOP SALES DATA

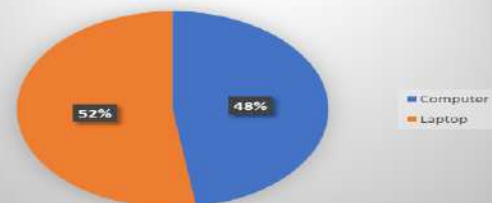
Comparing salesmen on the basis of Profit Earned



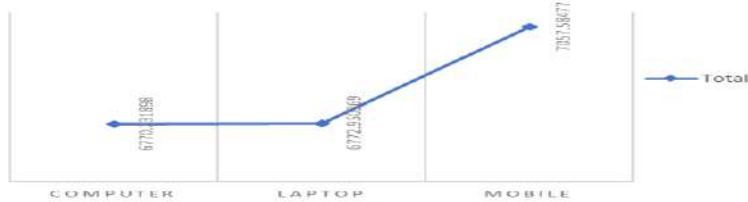
Most Sold Product



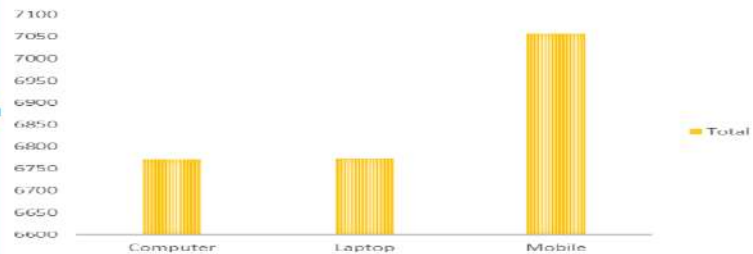
Total



MOST AVERAGE PROFIT



AVERAGE SALES



DASHBOARD FOR SALES DATA SAMPLE

