Loan Data Report

Introduction

The loan dataset offers comprehensive insights into applicants' details like gender, marital status, education, income, loan amount, and property area. This analysis aims to uncover patterns and demographics using pivot tables and charts. Understanding these nuances is crucial for financial institutions to optimize lending processes and cater to diverse customer needs effectively. The insights derived will inform strategic decisions and enhance loan management systems' efficiency.

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?

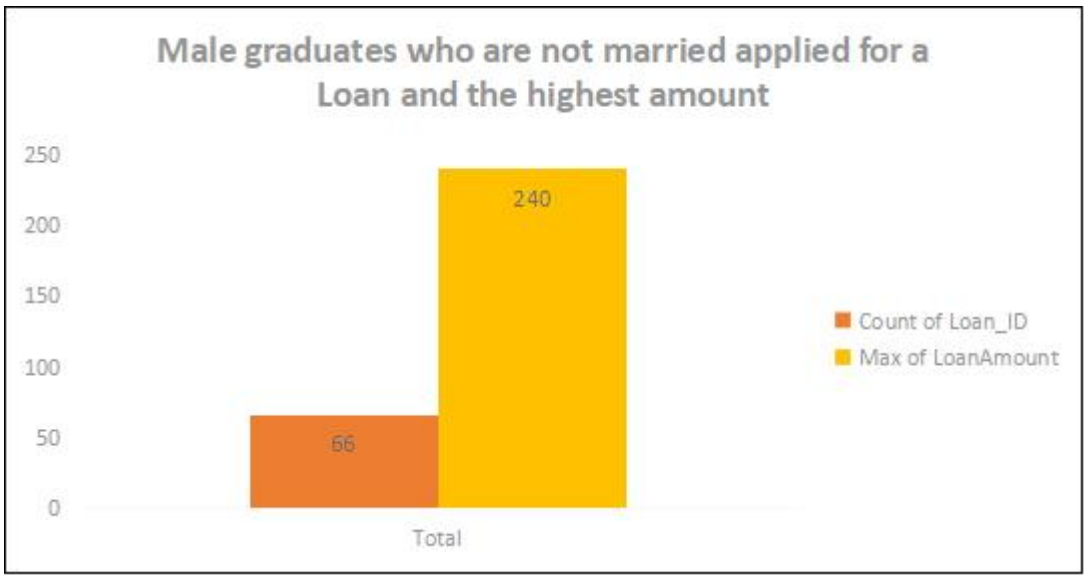
4. How many female graduates who are married applied for Loan? What was the highest amount?

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

Analytics

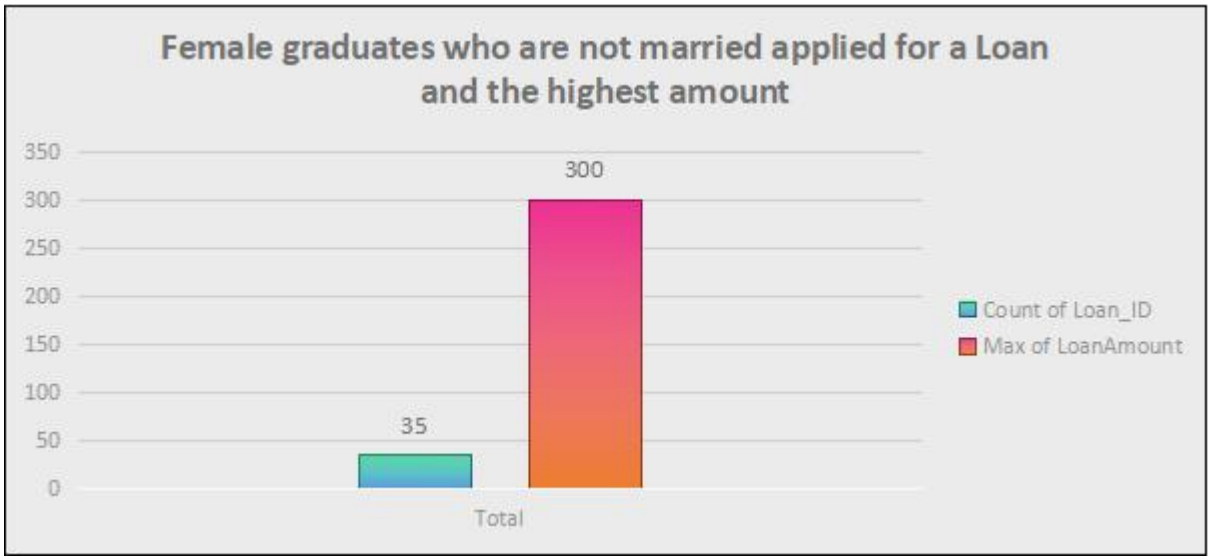
Q1. How many male graduates who are not married applied for Loan? What was the highest amount?

ANS: This analysis shows the no. of male graduates applied for the loan and are not married with the highest amount. As of analysed the total no. of loan applied is 66 and max loan amount is 240.



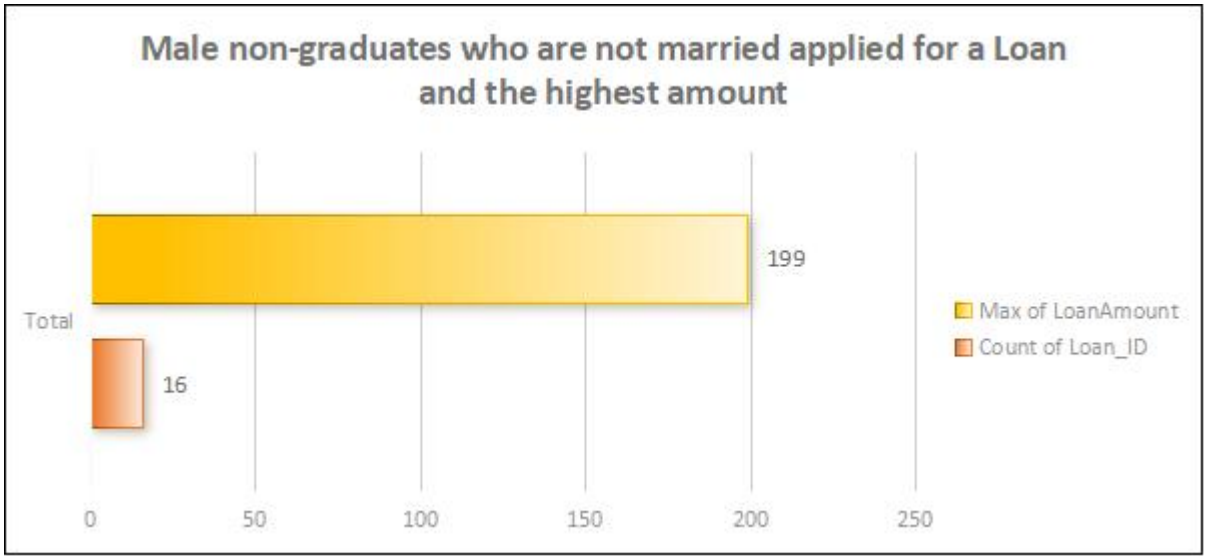
Q2. How many female graduates who are not married applied for Loan? What was the highest amount?

ANS: This analysis shows the no. of female graduates applied for the loan and are not married with the highest amount. As of analyzed the total no. of loan applied is 35 and max loan amount is 300.



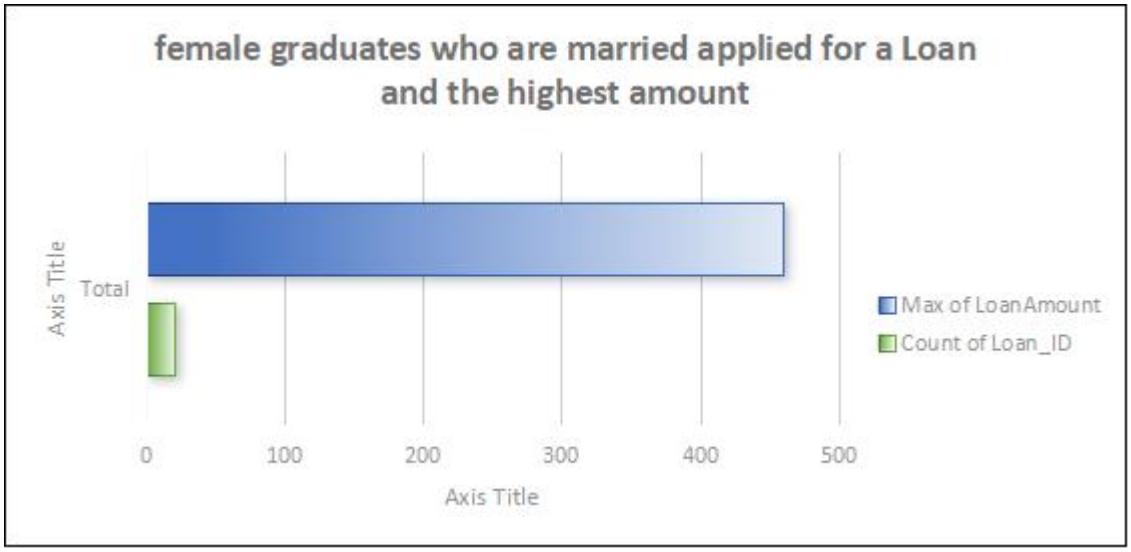
Q3. How many male non-graduates who are not married applied for Loan? What was the highest amount?

ANS: The analysis reveals that among loan applicants, the highest number consists of unmarried male non-graduates, with a total of 16 applications. The maximum loan amount requested is $199.



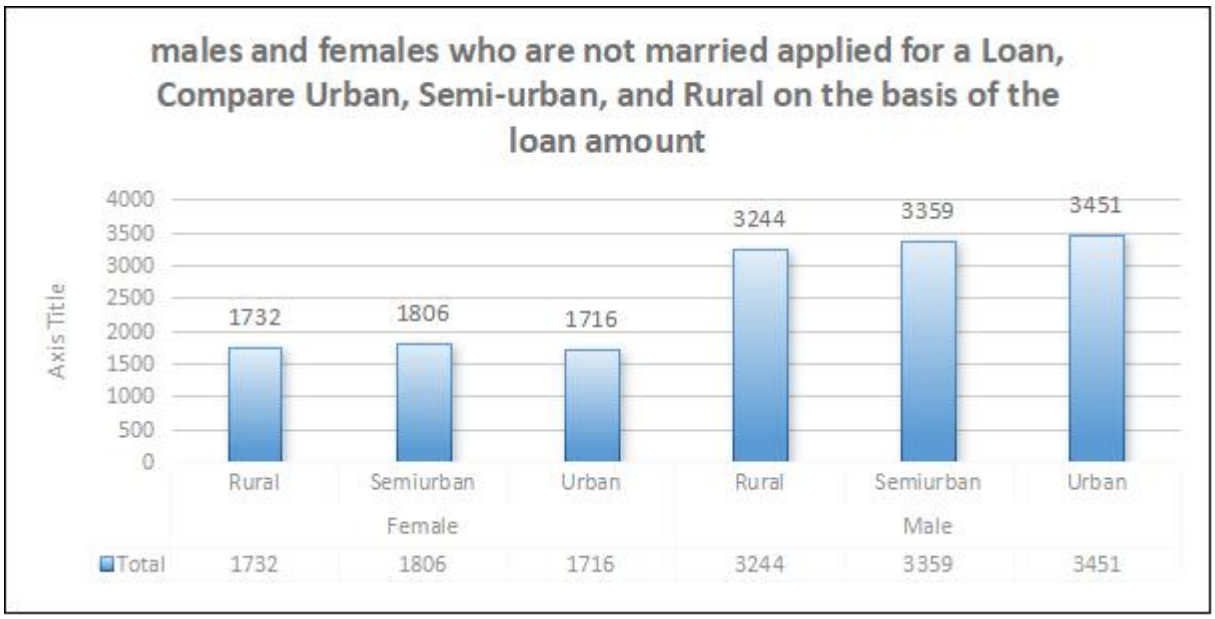
Q4. How many female graduates who are married applied for Loan? What was the highest amount?

ANS: The analysis indicates that the highest number of loan applicants are unmarried female graduates, totaling 21 applications. The maximum loan amount requested among them is $460.



Q5. How many male and female who are not married applied for Loan? Compare Urban, Semi-urban and rural based on amount.

ANS: This analysis compares loan applications from unmarried females and males across rural, semi-urban, and urban areas. Females have lower application counts: rural (1,732), semi-urban (1,806), and urban (1,716). In contrast, males show significantly higher counts: rural (3,244), semi-urban (3,359), and urban (3,451), indicating a gender disparity in loan applications.



Conclusion and Review

The analysis reveals stark gender disparities in loan applications, with unmarried male graduates leading, followed by unmarried female graduates. Smaller numbers of unmarried male non-graduates and married female graduates also applied. Males outnumbered females across rural, semi-urban, and urban areas. The report effectively illustrates gender-based trends, offering valuable insights into borrower demographics, while suggesting further exploration and visual enhancements for deeper insights.

Regression

Regression Statistics	
Multiple R	0.45908096
R Square	0.21075532
Adjusted R Square	0.20858707
Standard Error	56.07661 11
Observations	366

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	3	289502.8035	96500.93	37.32019	2.25609E-20
Residual	285	736940.7397	2585.757		
Total	288	1026443.543			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	66.690952	16.26833015	4.099434	5.41E-05	34.66963005	98.71227396	34.66963	98.71227
X Variable 1	0.095771273	0.045649816	2.097955	0.03679	0.005917708	0.185624838	0.005918	0.185625
X Variable 2	0.005807787	0.000627861	9.250122	5.49E-18	0.004571955	0.007043619	0.004572	0.007044
X Variable 3	0.006772797	0.001264765	5.354983	1.76E-07	0.004283331	0.009262263	0.004283	0.009262

Descriptive Statistics

Column1		*Column2*		*Column3*		*Column4*	
Mean	342.6713	Mean	4637.353	Mean	1528.263	Mean	136.7924
Standard Error	3.862088	Standard Error	281.8049	Standard Error	139.8588	Standard Error	3.511748
Median	360	Median	3833	Median	879	Median	126
Mode	360	Mode	5000	Mode	0	Mode	150
Standard Deviation	65.6555	Standard Deviation	4790.684	Standard Deviation	2377.599	Standard Deviation	59.69958
Sample Variance	4310.645	Sample Variance	22950653	Sample Variance	5652978	Sample Variance	3564.045
Kurtosis	8.629941	Kurtosis	141.612	Kurtosis	32.96701	Kurtosis	5.739804
Skewness	-2.64147	Skewness	10.41123	Skewness	4.510775	Skewness	1.780616
Range	474	Range	72529	Range	24000	Range	432
Minimum	6	Minimum	0	Minimum	0	Minimum	28
Maximum	480	Maximum	72529	Maximum	24000	Maximum	460
Sum	99032	Sum	1340195	Sum	441668	Sum	39533
Count	289	Count	289	Count	289	Count	289

Correlation

	Column 1	*Column 2*	*Column 3*
Column 1	1		
Column 2	-0.08435	1	
Column 3	0.445695	0.230355	1