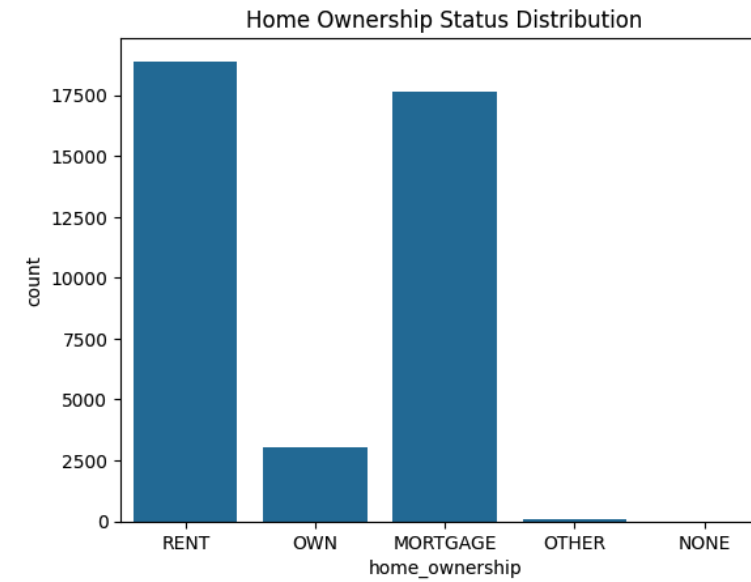
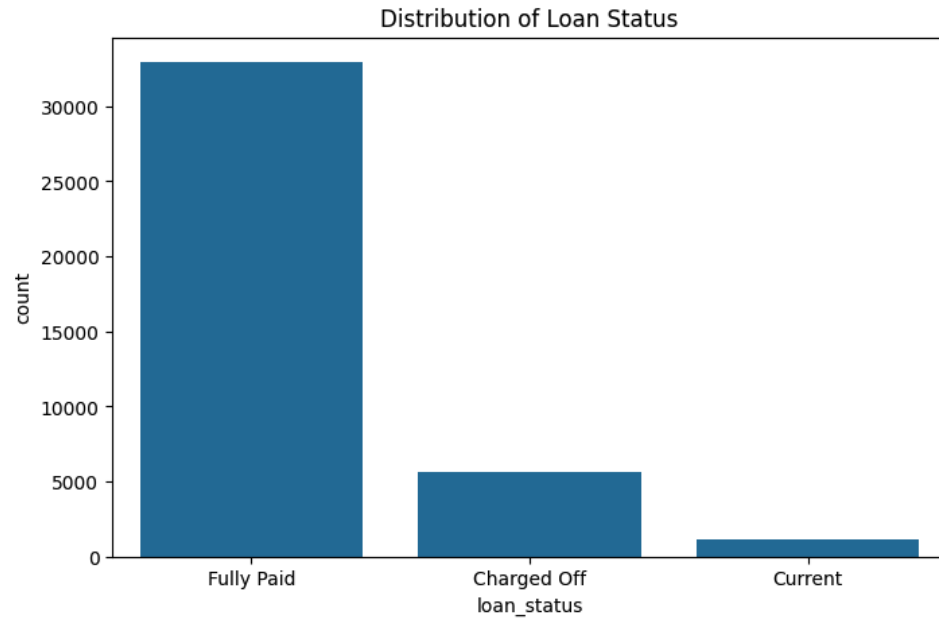


Lender Case Study

Anup T J

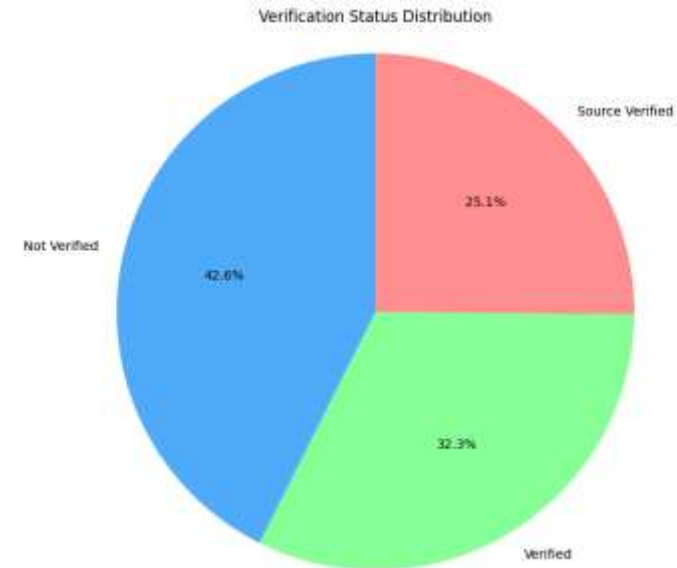
Univariate Analysis



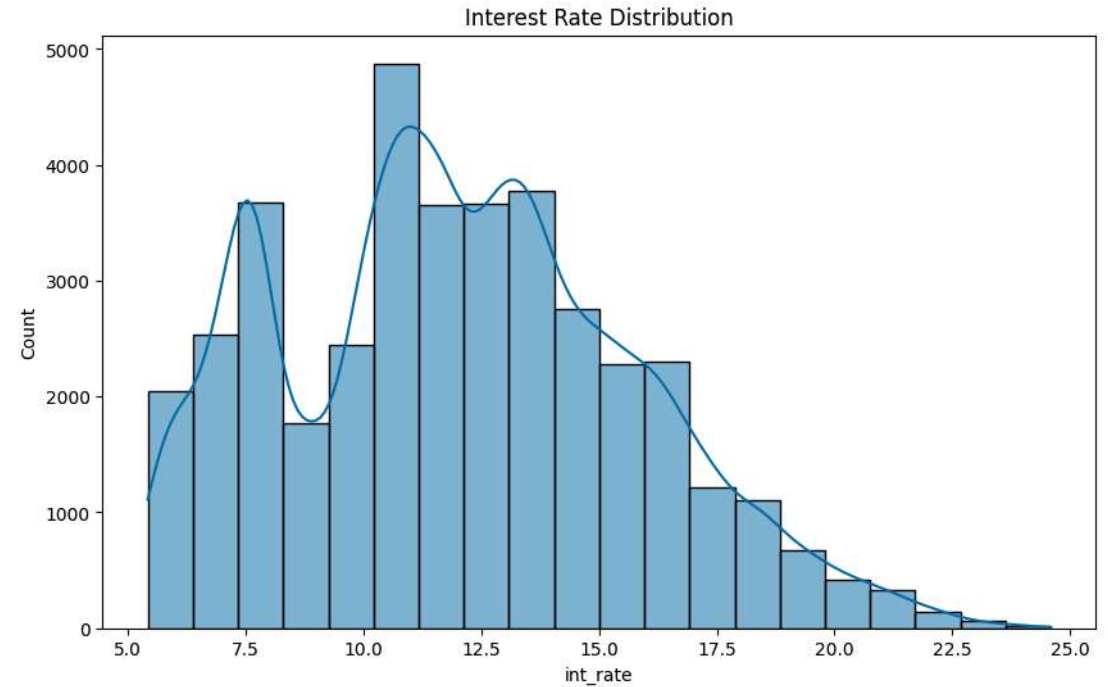
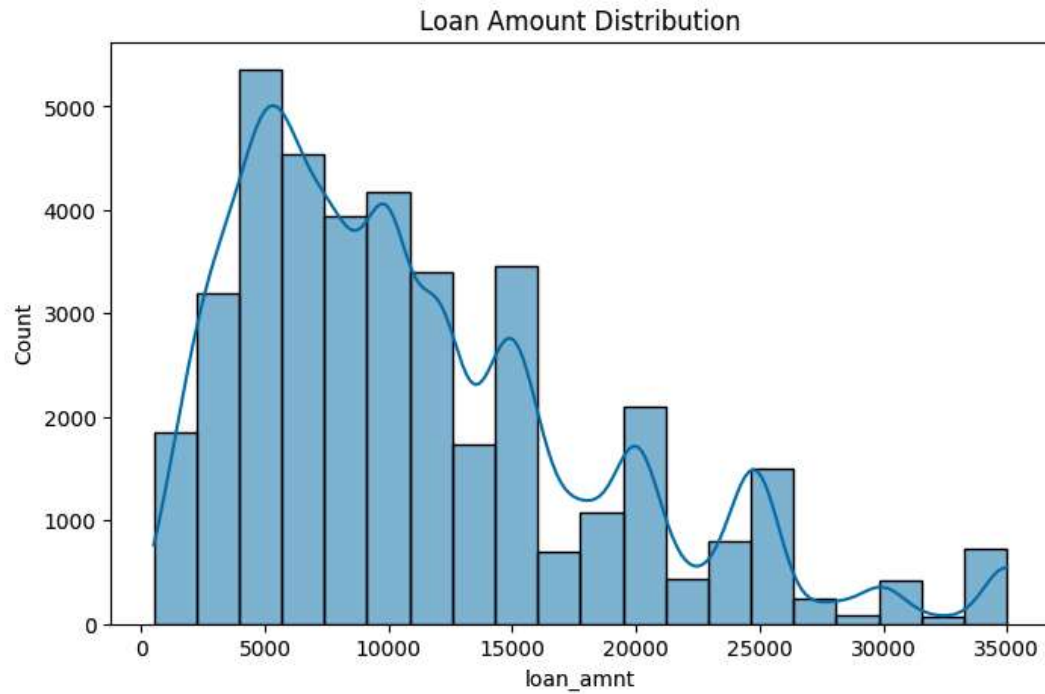
Categorical Variables:

From the graph above,

1. The majority of loan distributions are given to individuals who are fully paid.
2. I have observed that 42% of the loan distribution is not verified.
3. The majority of lenders are either in rented houses or have mortgage home ownership.



Univariate Analysis

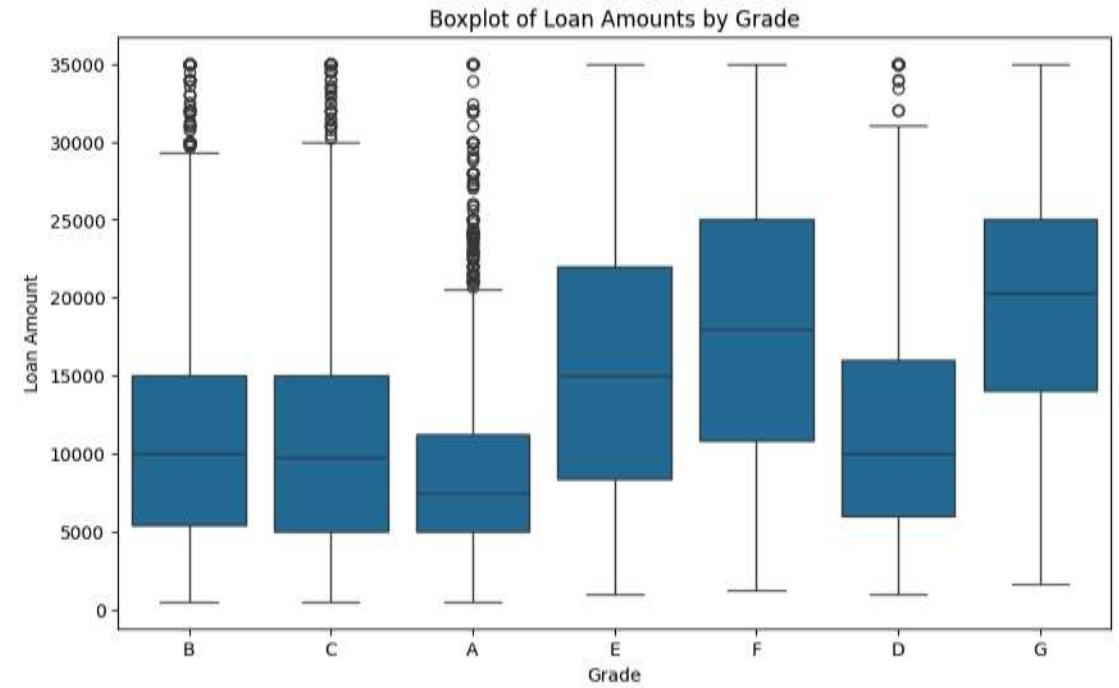
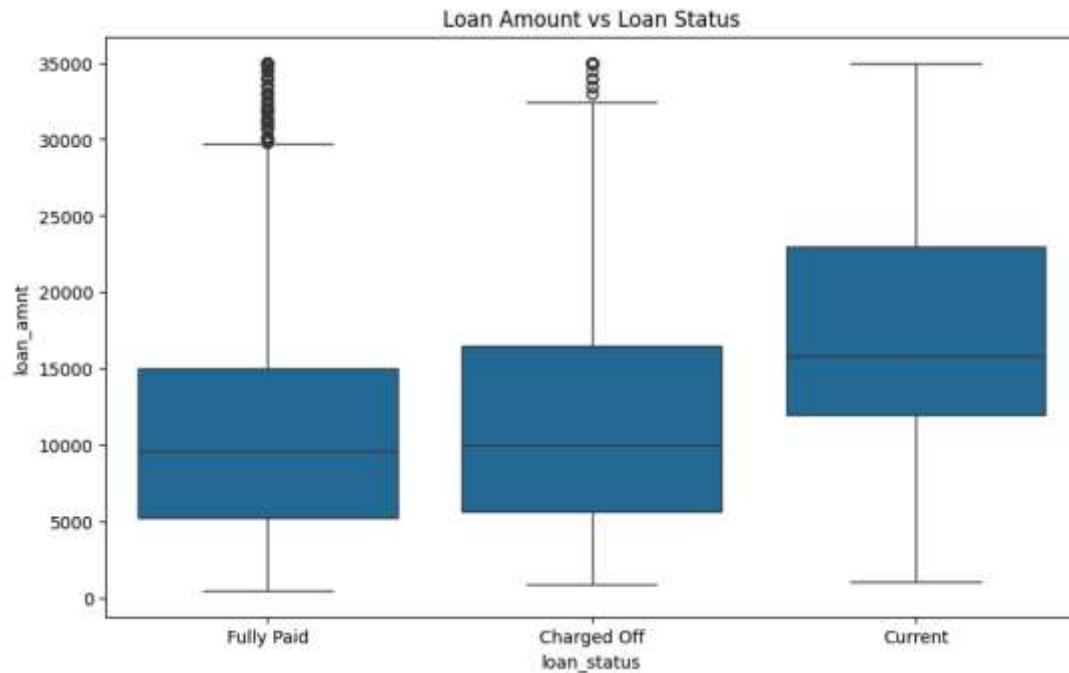


Numerical Variables:

From the graph above:

- 1.The majority of the distributed loan amounts are between Rs/- 10,000 and Rs/-15,000, while the distribution decreases for amounts above Rs/- 15,000.
- 2.Most lenders obtained loans with interest rates ranging from 10.5% to 14%.

Segmented Univariate Analysis



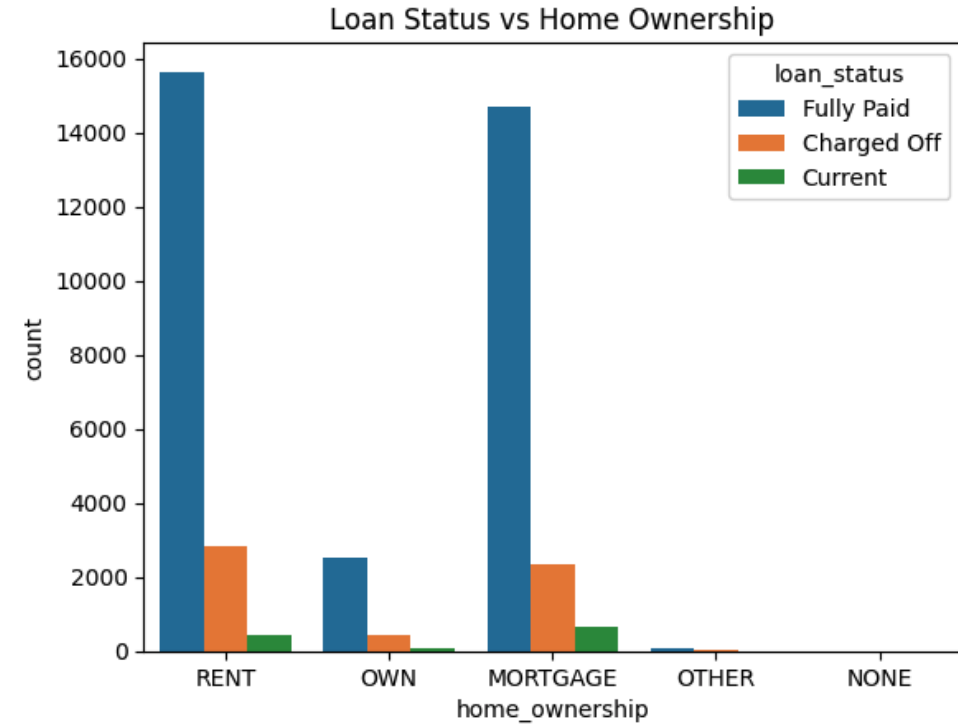
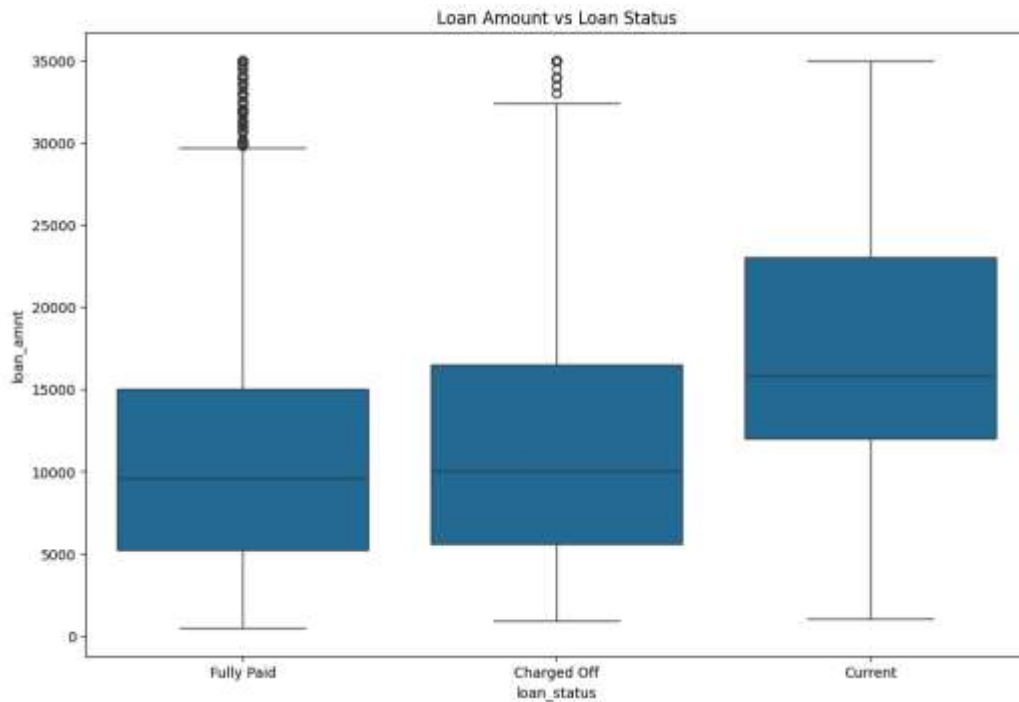
Segment the univariate analysis by loan status (or charged off if you're using a binary target).

1. IQR is comparatively less for Fully Paid and median is around 10,000 Rs/- and whisker is more for Fully paid.
2. Grade A taken less loan Amount compared to all and E, F and G grade people have more median value compared to all.

Bivariate Analysis

Based on univariate and bivariate analysis, identified 5 key driver variables that are strong indicators of default.

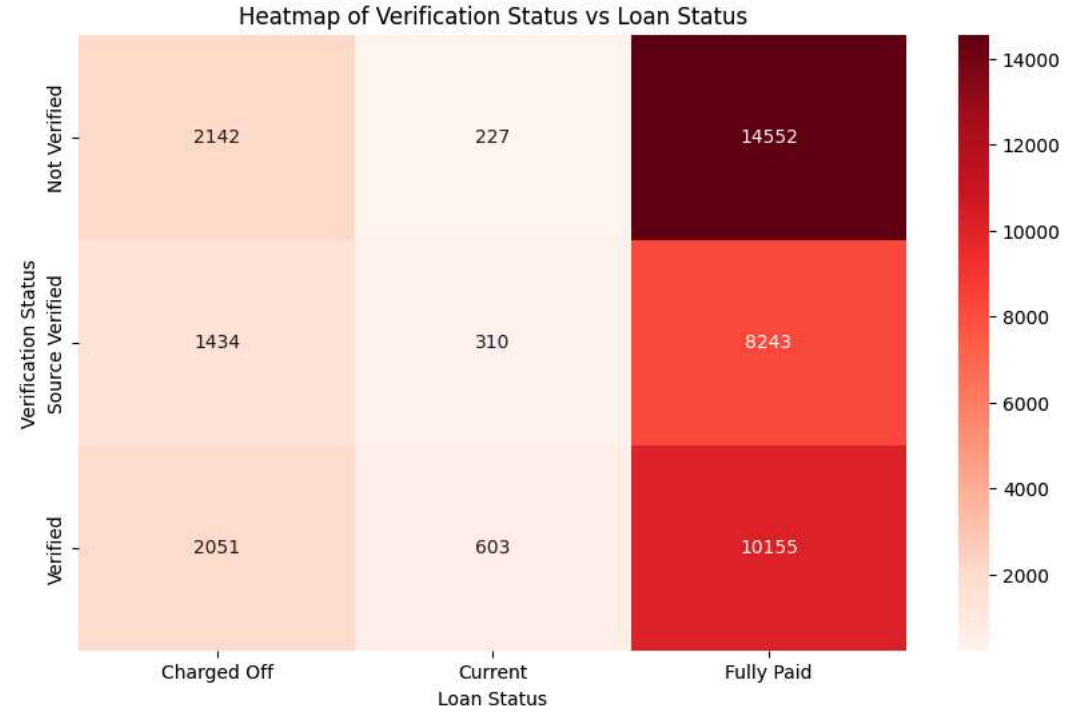
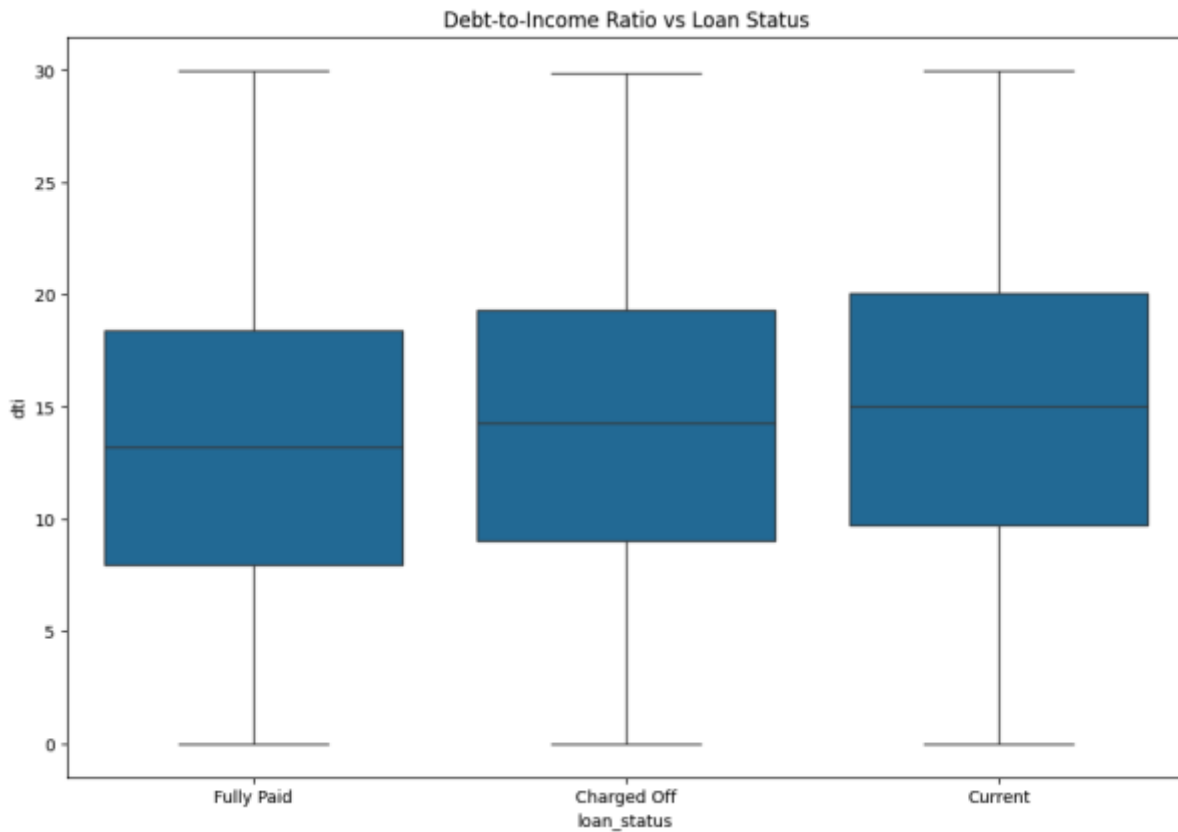
- Loan Amount (loan_amnt)
- Interest Rate (int_rate)
- Debt-to-Income Ratio (dti)
- Grade (grade)
- Annual Income (annual_inc)



1. Those who are in own house are less defaulters. And those who are in rented house are fully paid comparatively chance of charged off.
2. interest rate median around 11.5 to 12 % are fully paid, and interest rate median more than 13% are chance of charged off.

Bivariate Analysis

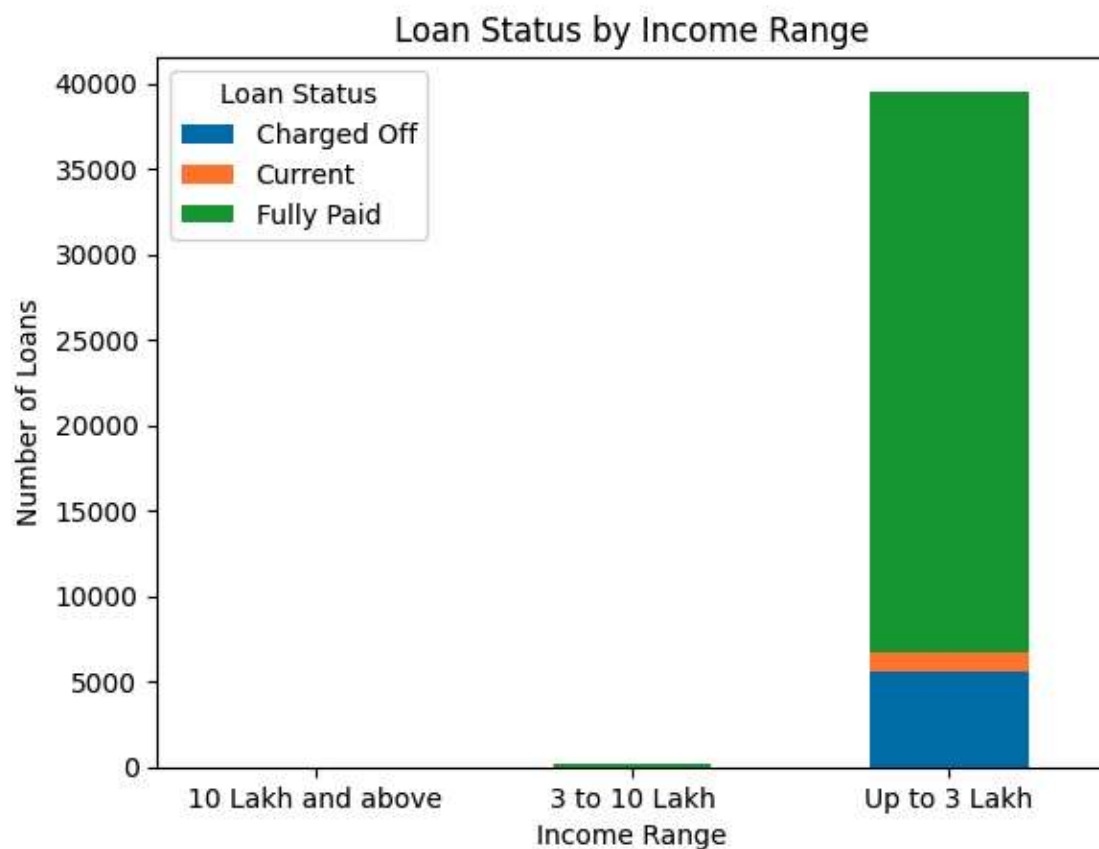
1. The majority of not verified status people are full paid.
2. DTI of full paid is less compared to charged off and current.



Bivariate Analysis

1. Most of the loan takers have an income of less than ₹3 lakh.
2. Among those with an income of more than ₹10 lakh, 92% are fully paid, while those with an income of less than ₹3 lakh have a 14% chance of being charged off.

loan_status	Charged Off	Current	Fully Paid
income_range			
10 Lakh and above	7.142857	0.000000	92.857143
3 to 10 Lakh	12.422360	2.484472	85.093168
Up to 3 Lakh	14.177330	2.872895	82.949775



Bivariate Analysis

Scatter Plot (loan_amnt vs annual_inc): Explore the relationship between loan amount and annual income.

1. Higher the loan amount and interest rate having chances are high to charged off.
2. Less income and highest interest rate having chances are high to charged off.

