

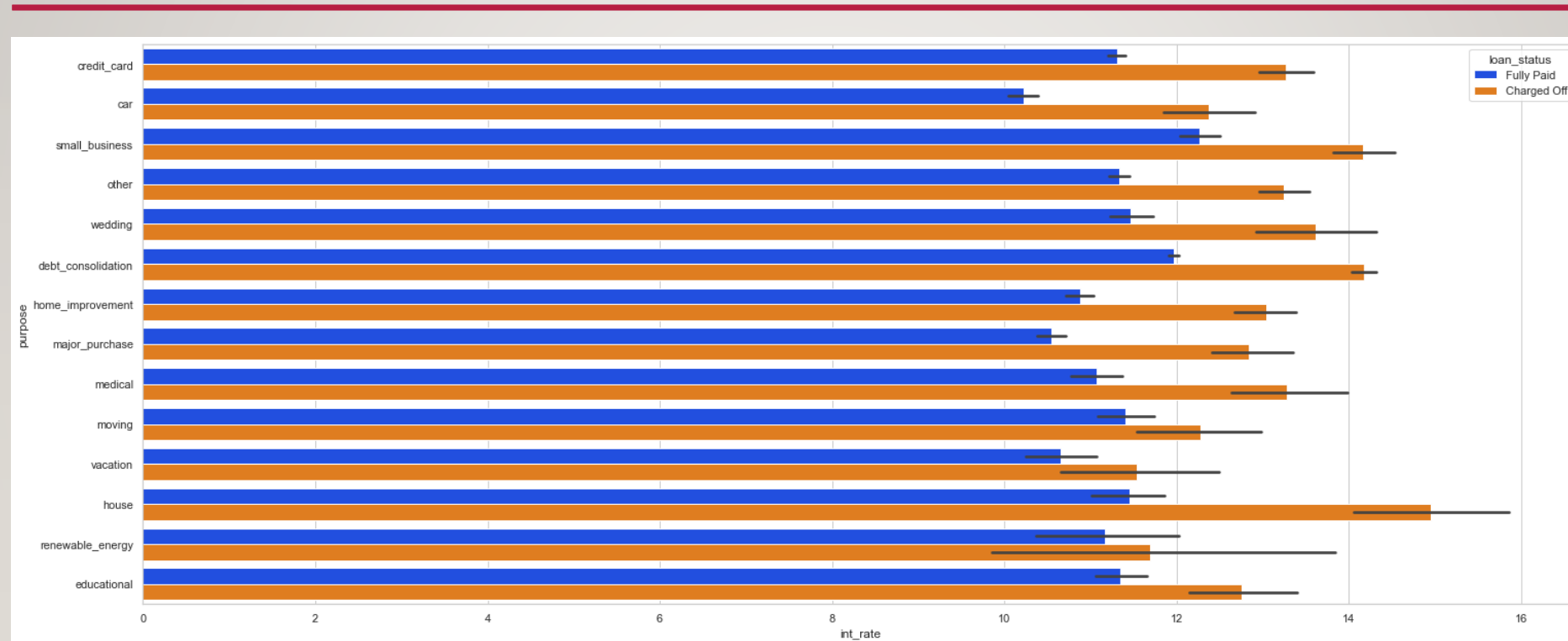
LENDING CLUB CASE STUDY EDA

- LENDING CLUB EMARKETPLACE NEEDS TO IDENTIFY CONSUMER ATTRIBUTES AND LOAN ATTRIBUTES INFLUENCING THE TENDENCY TO DEFAULT
- THE DATASET CALLED LOAN_CSV IS PROVIDED AND LOADED.
- THE COMPANY WANTS TO UNDERSTAND THE DRIVING FACTORS (OR DRIVER VARIABLES) BEHIND LOAN DEFAULT.
- THE COMPANY CAN UTILIZE THIS KNOWLEDGE FOR ITS PORTFOLIO AND RISK ASSESSMENT.
- THIS IS AN EDA EXERCISE TO DO SOME DESCRIPTIVE ANALYSIS ON THE DATA PROVIDED

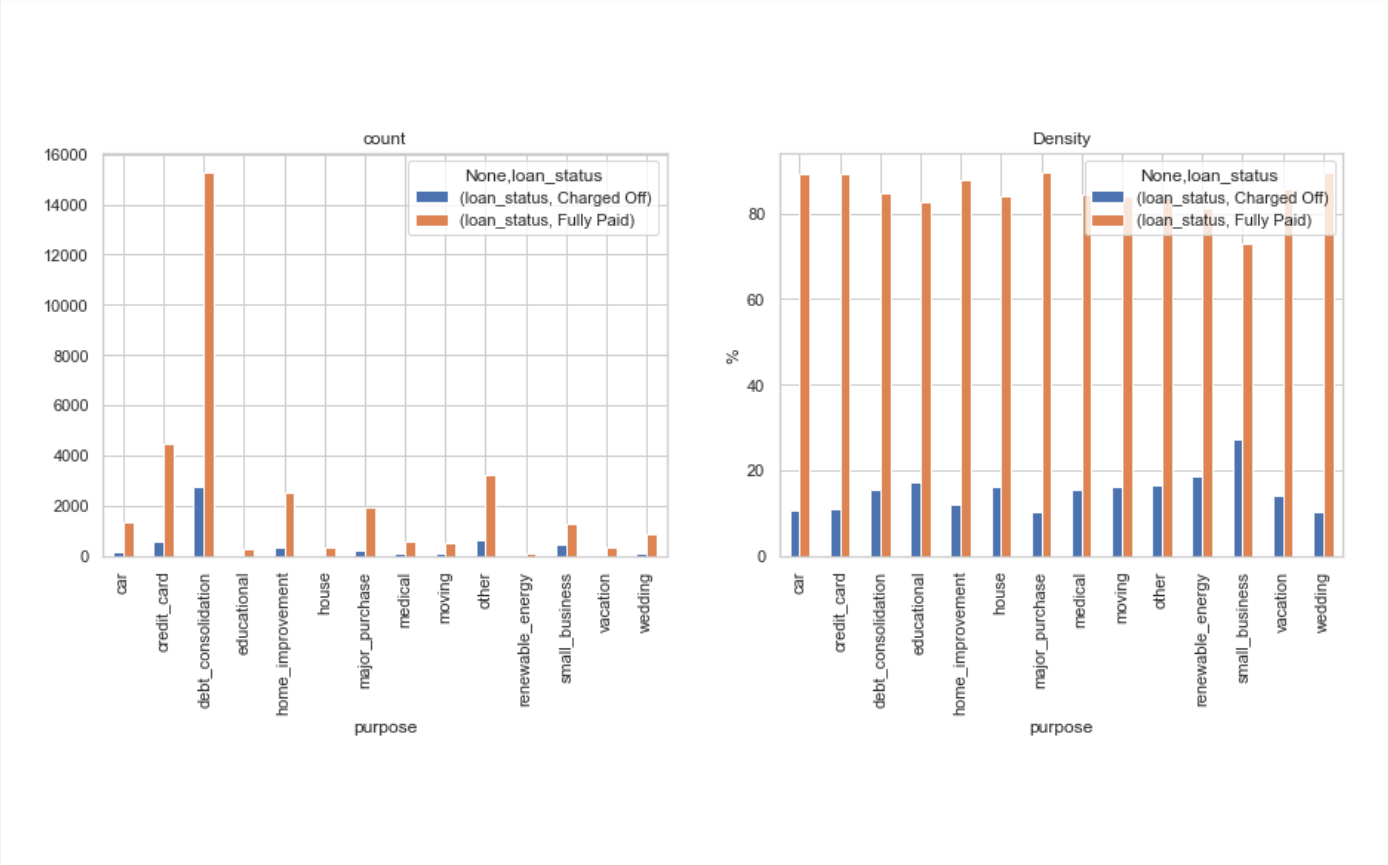
KEY VARIABLES AND THE IMPACT ON DEFAULT IS IDENTIFIED HERE FOR TENDENCY TO DEFAULT

- Purpose such as small business or debt consolidation
- Interest rates higher than equal to 14 percent
- Home ownership such as Rent or Mortgage
- When people have mortgage and loan amount between 10k to 14k people tend to default
- When people have Unknown/Other home ownership and loan amount between 10k to 14k people tend to default
- For higher interest rates , across all purposes , if the interest rates go higher than 10% , the numbers of default vs fully paid increases.
- lower number of open accounts and total accounts

PURPOSE - SMALL BUSINESS OR DEBT CONSOLIDATION WRT INTEREST RATES



SMALL BUSINESS
AND DEBT
CONSOLIDATION
COUNT AND
DENSITY



PURPOSE IMPACT ON DEFAULT



When the loans are taken for Debt Consolidations and Small business , the number of defaulters are higher

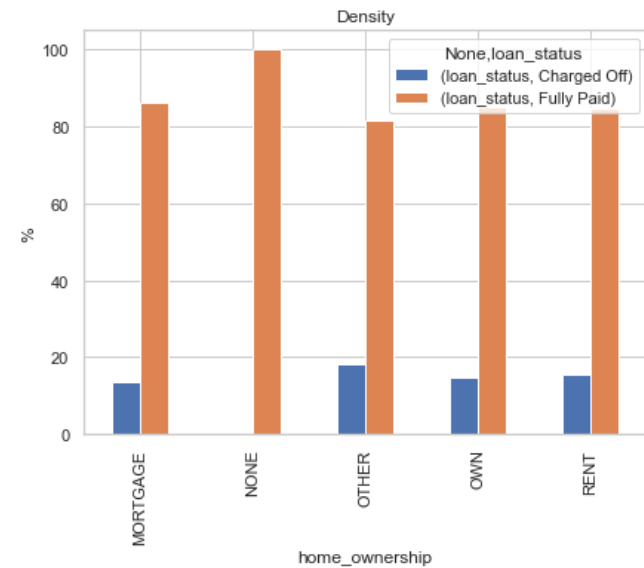
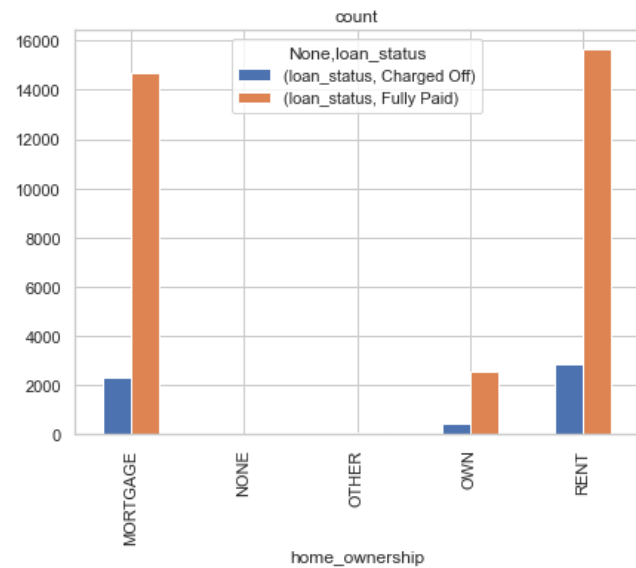


For high interest rates home loans , the number of default is high as well

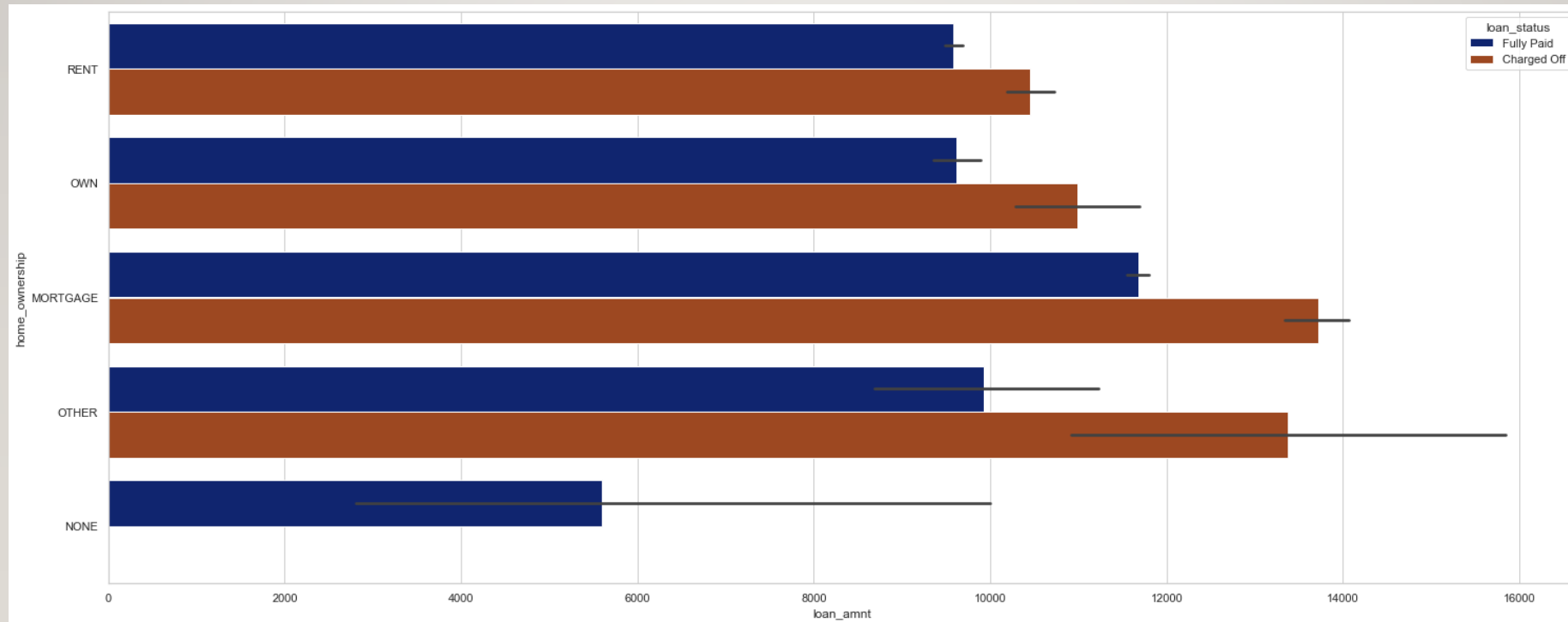


For higher interest rates , across all purposes , if the interest rates go higher than 10% , the numbers of default vs fully paid increases

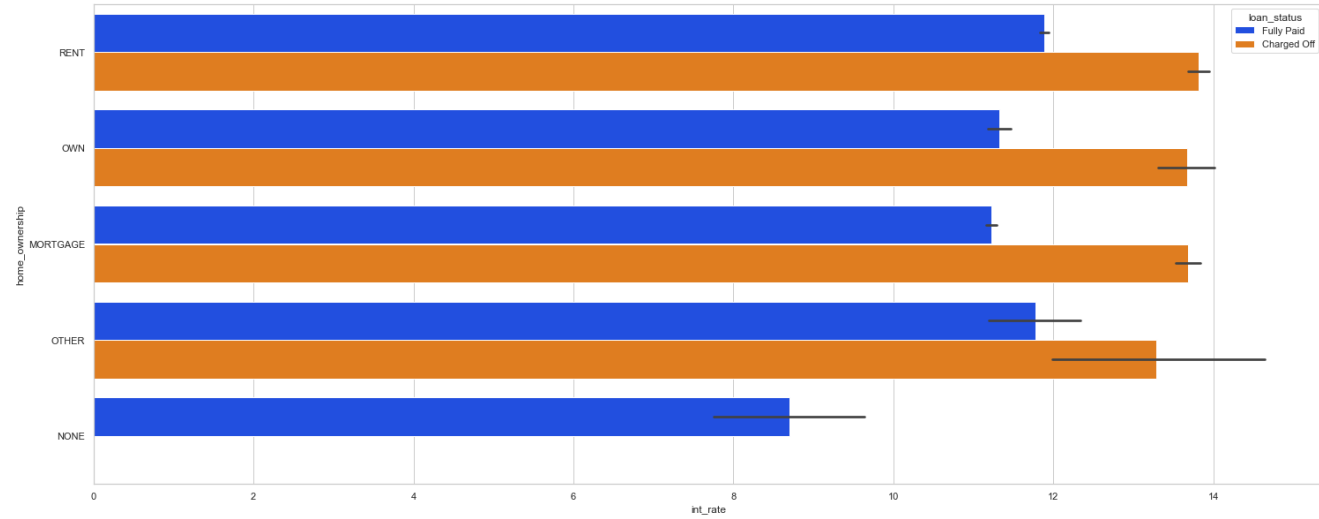
HOME OWNERSHIP IMPACT ON DEFAULT COUNT



HOME OWNERSHIP IMPACT ON DEFAULT WRT LOAN AMOUNT



HOME OWNERSHIP IMPACT ON DEFAULT WRT LOAN AMOUNT



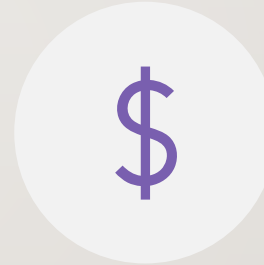
HOME OWNERSHIP CONCLUSION



PEOPLE WITH RENT AND MORTGAGE TEND TO DEFAULT MORE



INTEREST RATES IF HIGHER FOR PEOPLE ON RENT TENDS TO INCREASE THE NUMBERS OF DEFAULTERS



WHEN PEOPLE HAVE MORTGAGE AND LOAN AMOUNT BETWEEN 10K TO 14K PEOPLE TEND TO DEFAULT



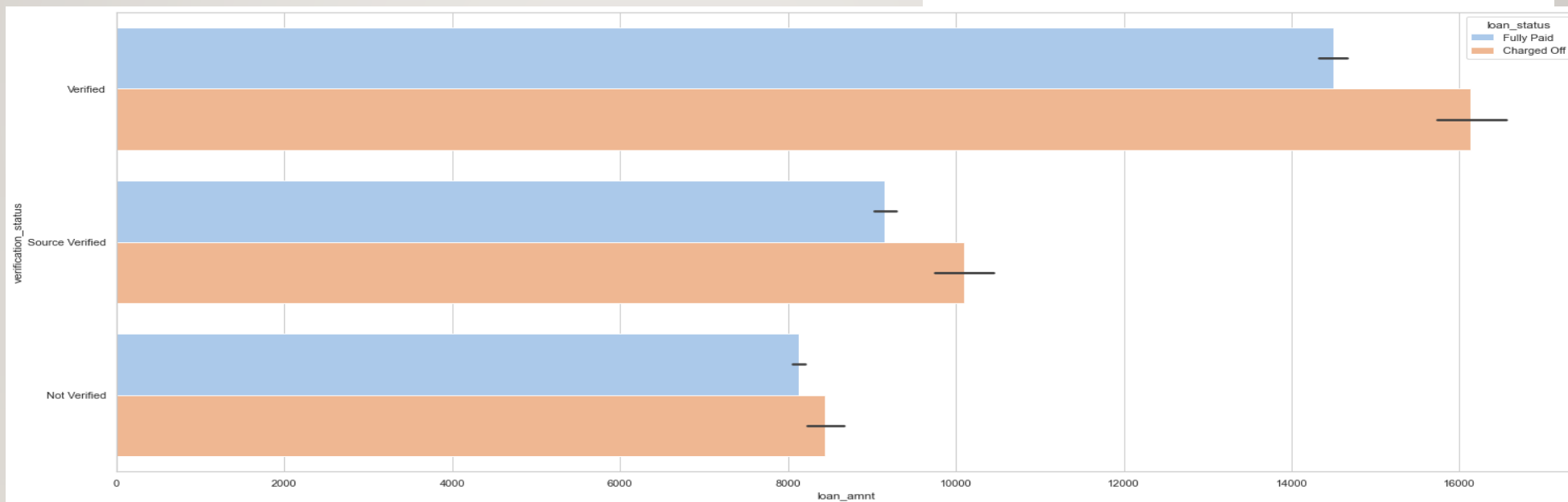
WHEN PEOPLE HAVE UNKNOWN/OTHER HOME OWNERSHIP AND LOAN AMOUNT BETWEEN 10K TO 14K PEOPLE TEND TO DEFAULT.

VERIFICATION STATUS AND ITS IMPACT ON DEFAULT

Non verified borrowers have higher count of default.

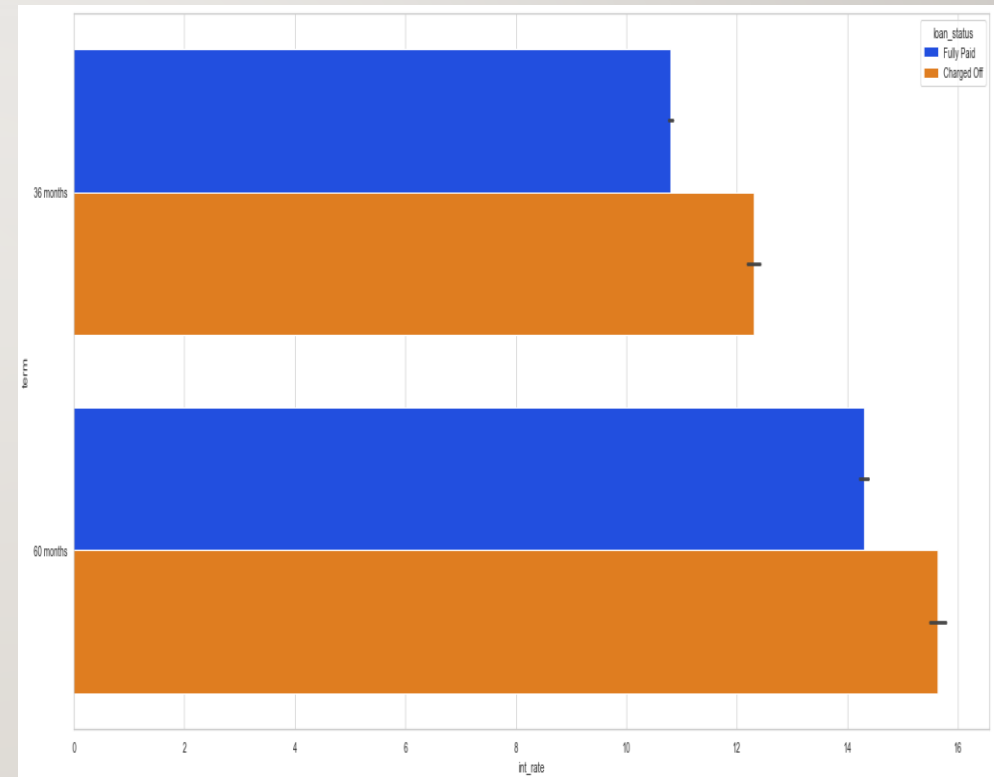
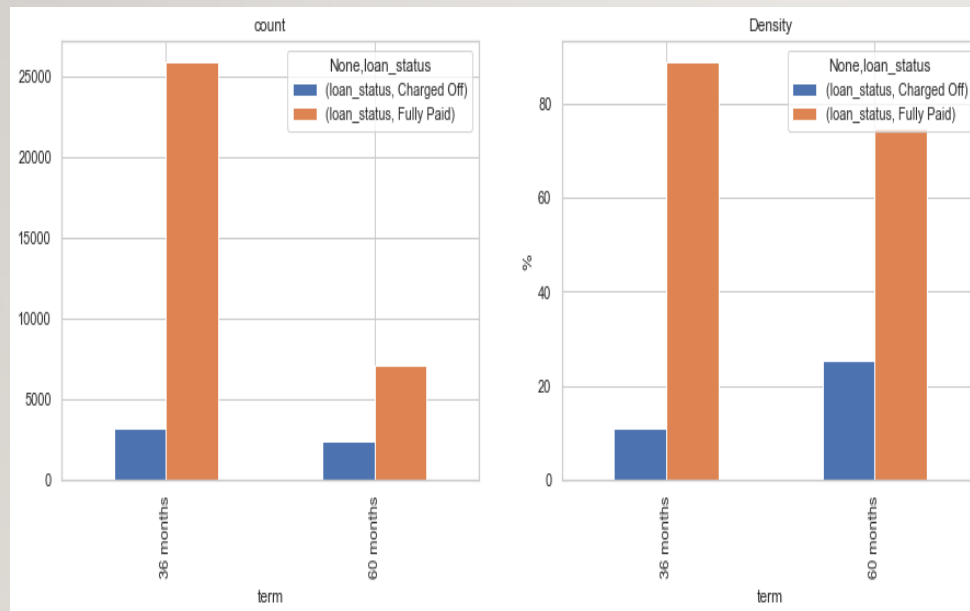
Verification status does not help the lenders because even verified borrowers tend to default if the loan amount is more than 14k

VERIFICATION STATUS AND IMPACT ON DEFAULT



TERM IMPACT ON DEFAULT

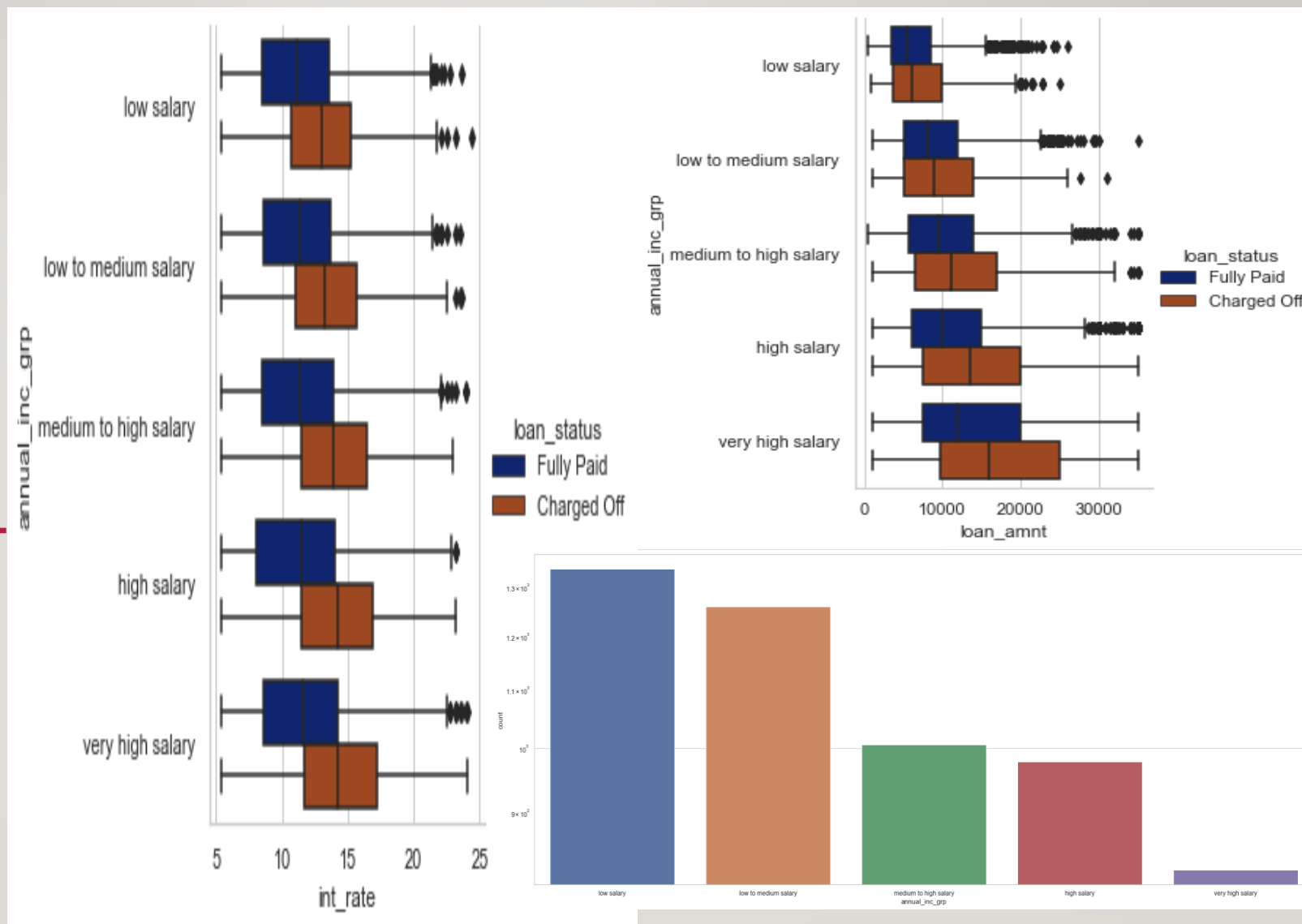
LARGER THE LOAN TERM , HIGHER IS THE INTEREST RATES AND NUMBER AND DENSITY OF DEFAULTERS



ANNUAL INCOME AND ITS IMPACT

- Across all income groups , the interest rate is higher when defaulted when compared to fully paid and
- Borrower in low income category have higher count of default
- As the income increases so does the Loan amount increases and also the default count increases

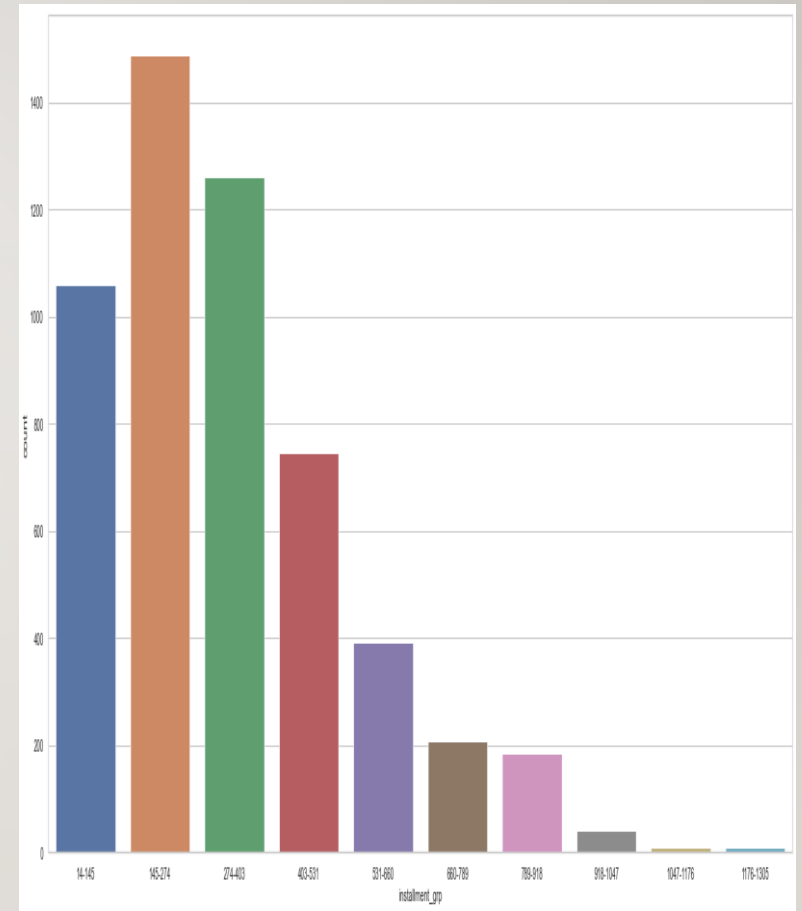
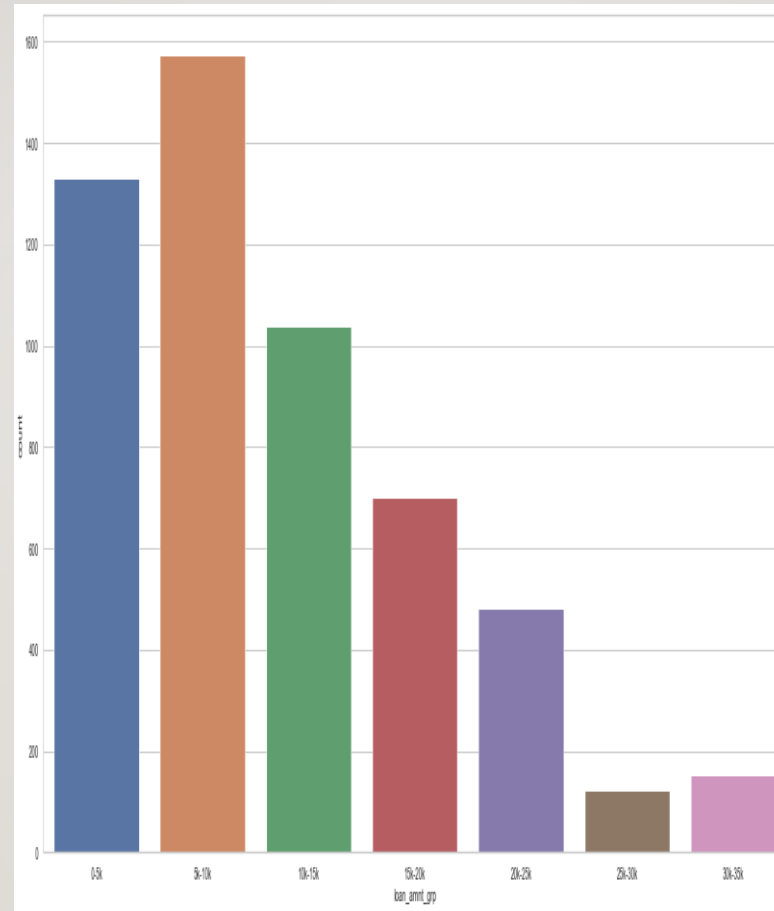
ANNUAL INCOME WRT TO INTEREST RATES, LOAN AMOUNT AND



SOME OTHER OBSERVATIONS.

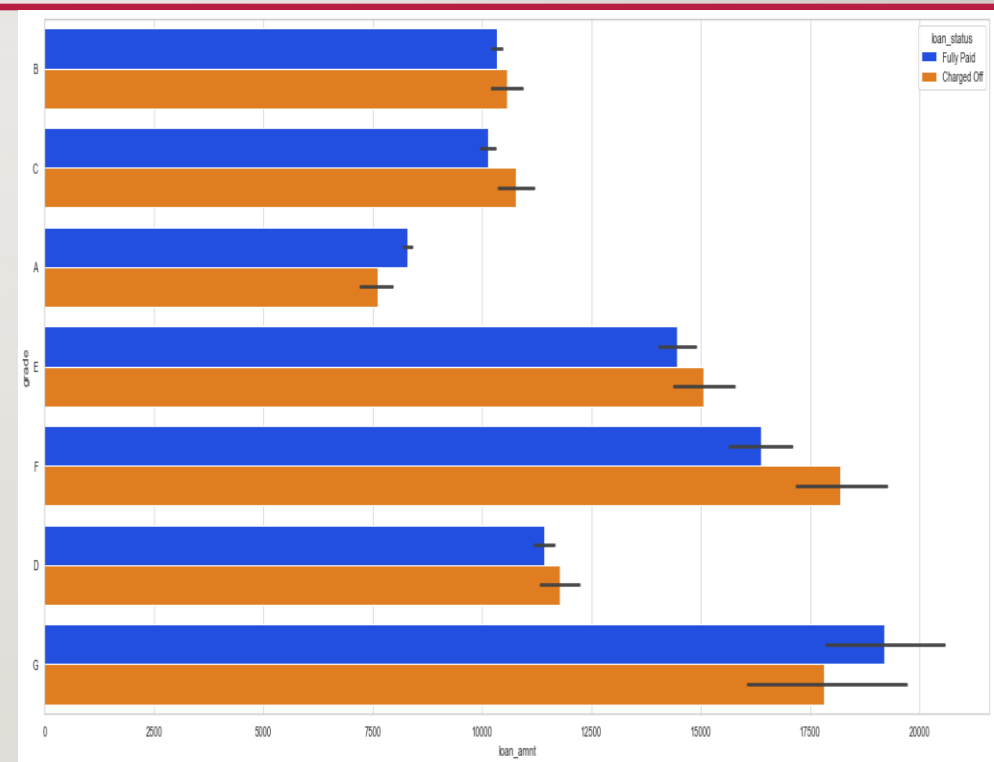
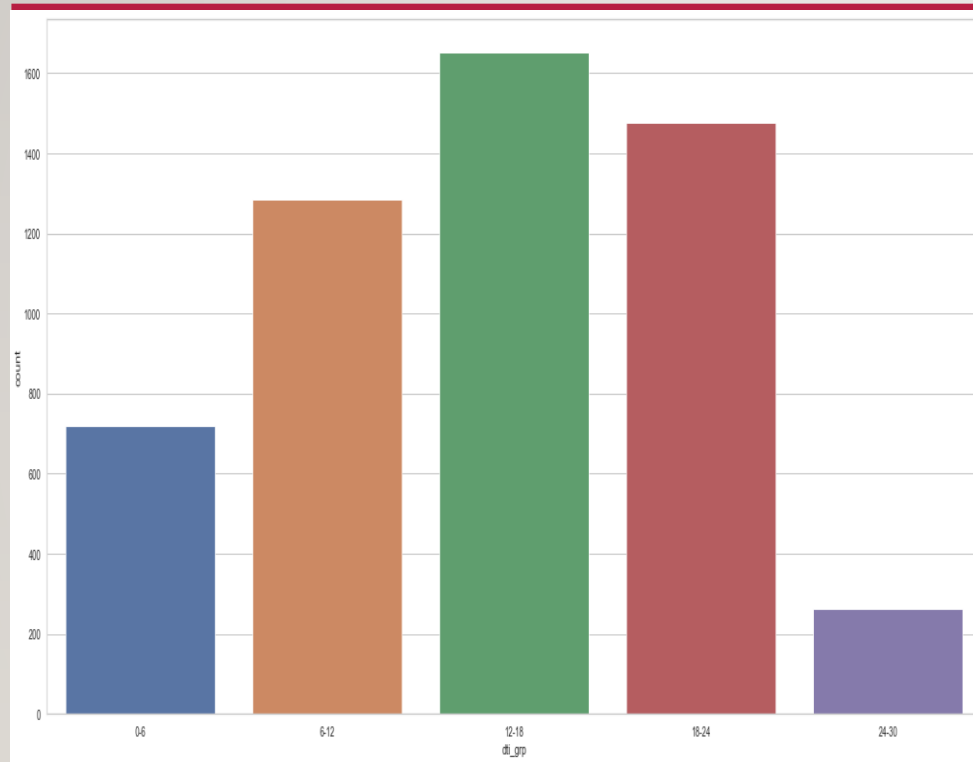
- DTI between 12-18 have highest defaulters
- Loan amount between 5-10 k has the highest defaulters
- Installment between 145 to 274 has the highest number of defaulters
- when the loan amount is between 15k to 20 K , and the grade is F ,there are more defaulters

INSTALLMENT AND LOAN AMOUNT



.LOAN AMOUNT WITH GRADE

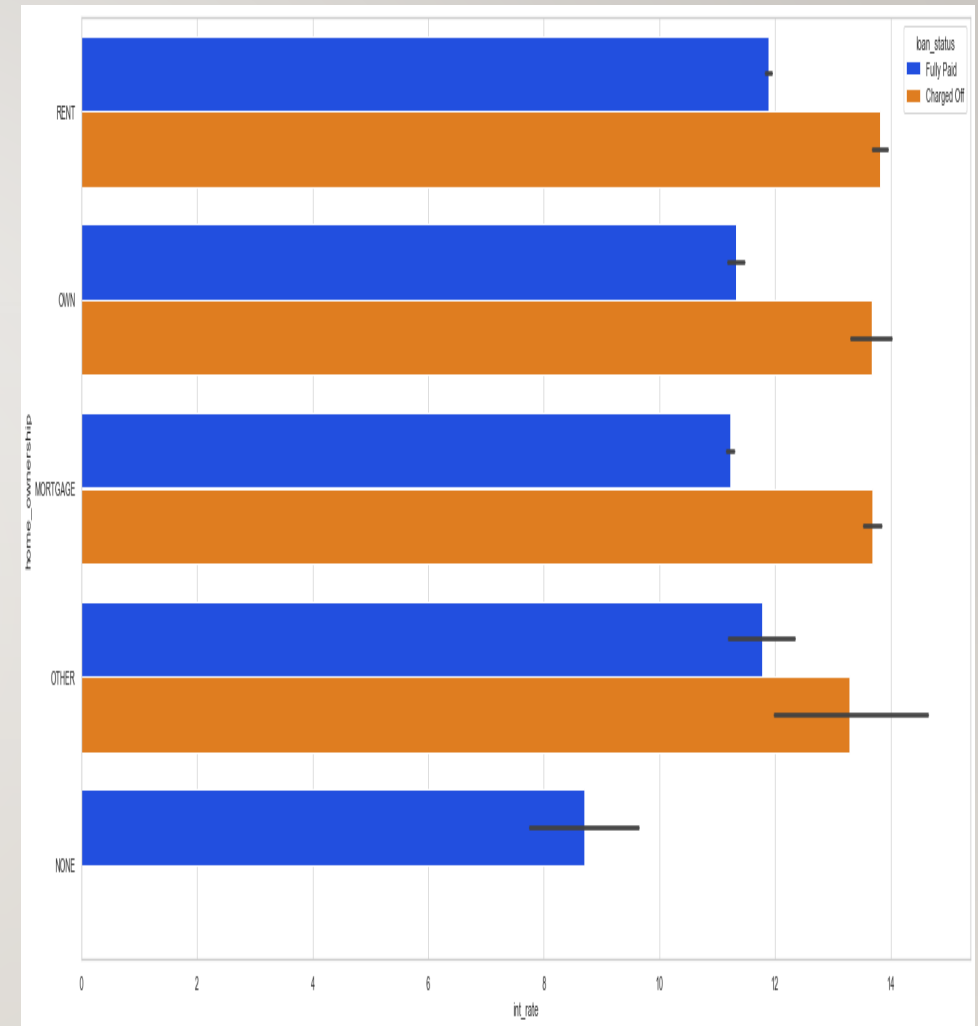
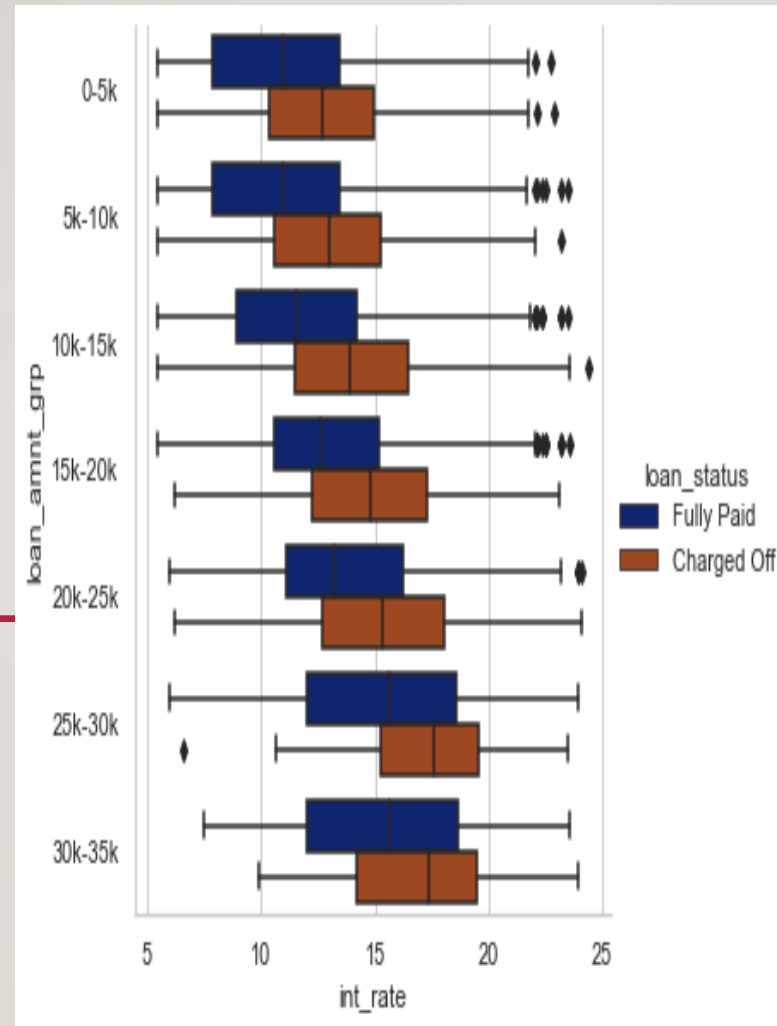
.DTI



INTEREST RATE AND ITS IMPACT

- For high interest rates home loans , the number of default is high as well
- For higher interest rates , across all purposes , if the interest rates go higher than 10% , the numbers of defaults vs fully paid increases
- When people have Unknow/Other home ownership and loan amount between 10k to 14k people tend to default.
- When the purpose is house the interest rate is quite high and the default is also high

INTEREST RATE WRT LOAN AMOUNT INTEREST RATE WRT HOME OWNERSHIP



INTEREST RATES WRT TO PURPOSE

