

# Lending Club Case Study

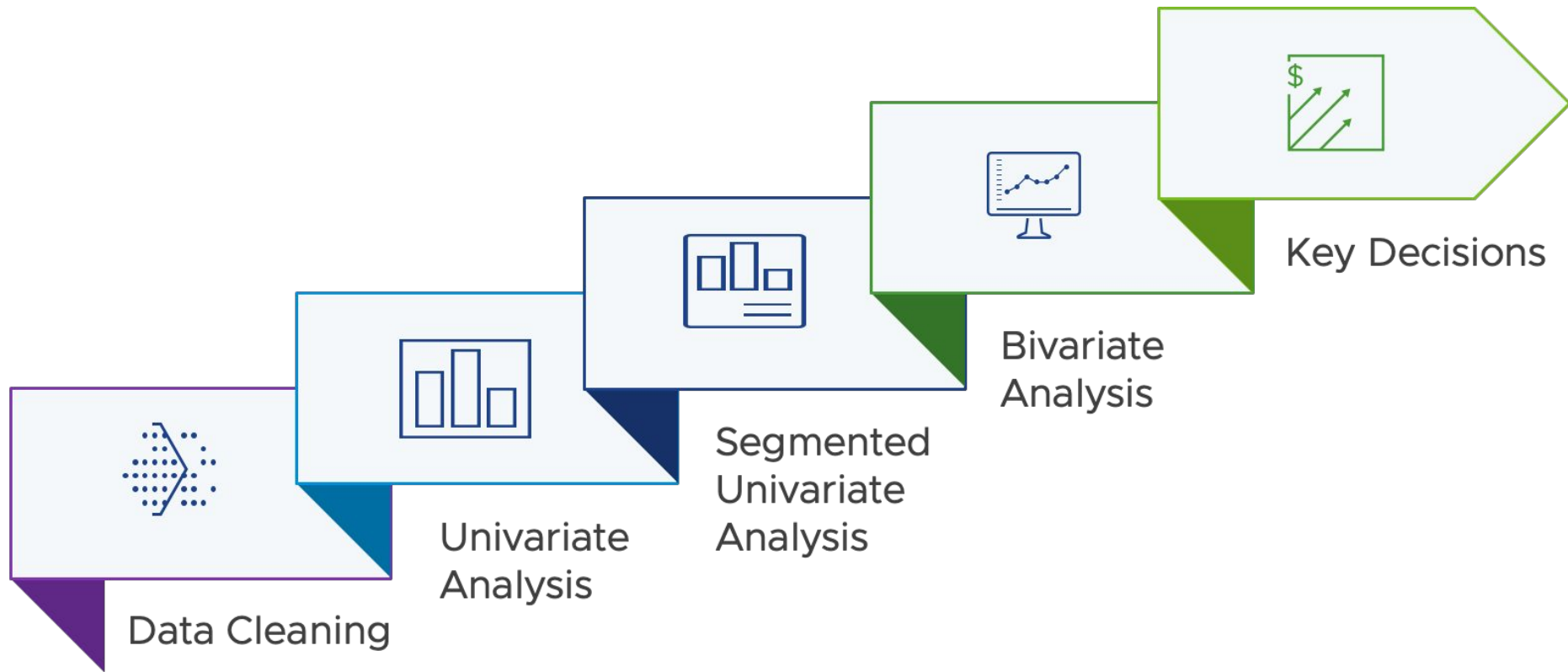
Sai Satwik Kuppili  
Mallikarjuna Manne

# Outline

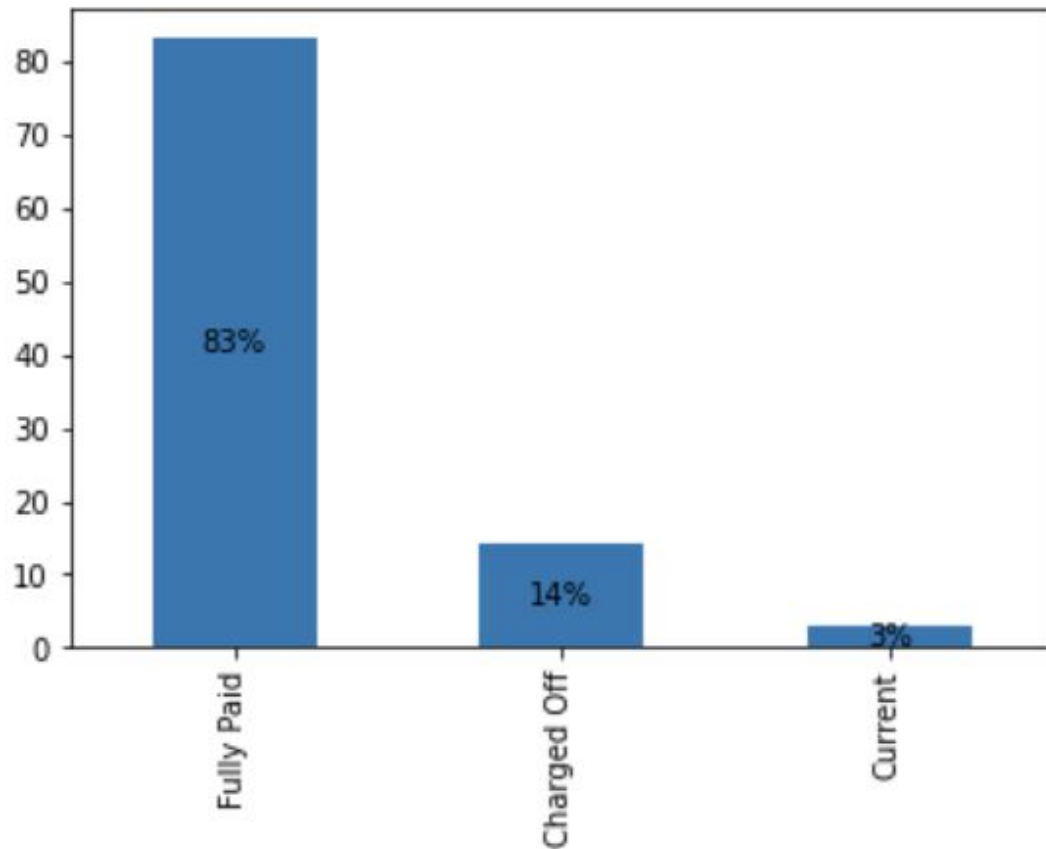
- Introduction
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- Conclusion
- References

# Problem Definition

# Analysis Steps

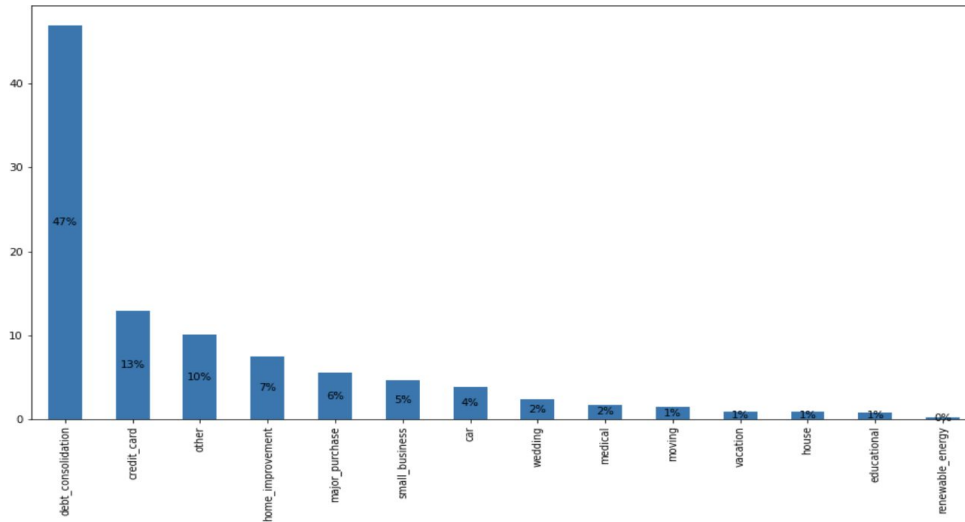


# Analysis on Loan status

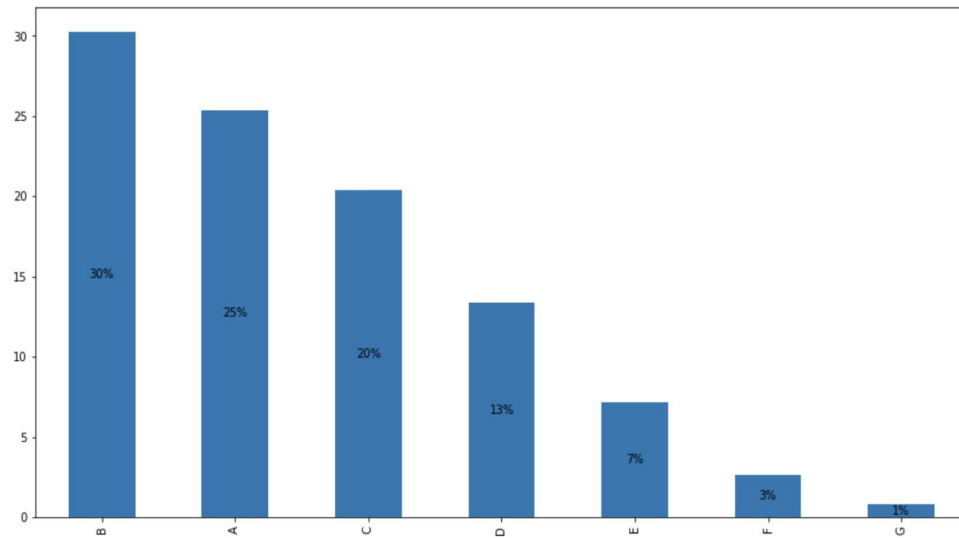


Approximately 14% of loans are defaulted in the given data

# Analysis on Data Understanding

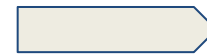
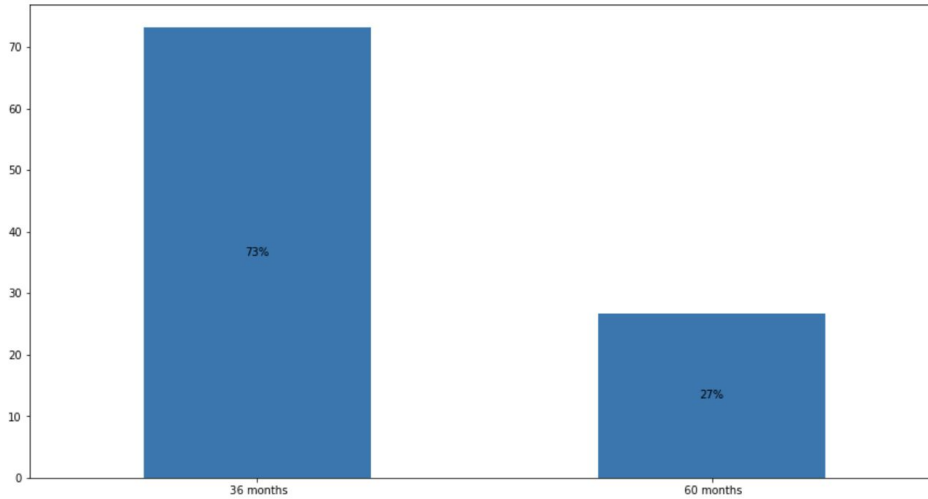


Maximum number of loans are for debt\_consolidation followed by credit\_card

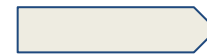
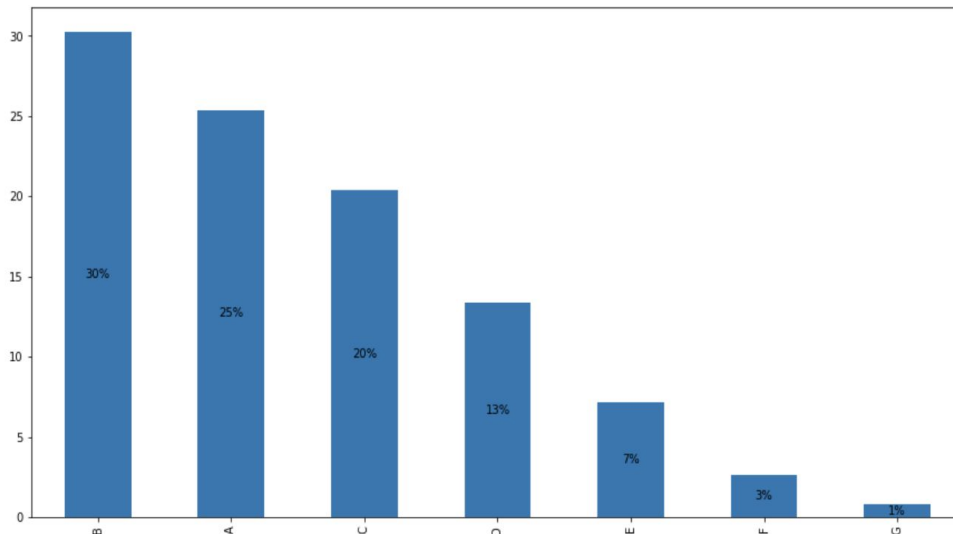


Maximum number of loans are with grade of A and B

# Analysis on data Understanding cont..

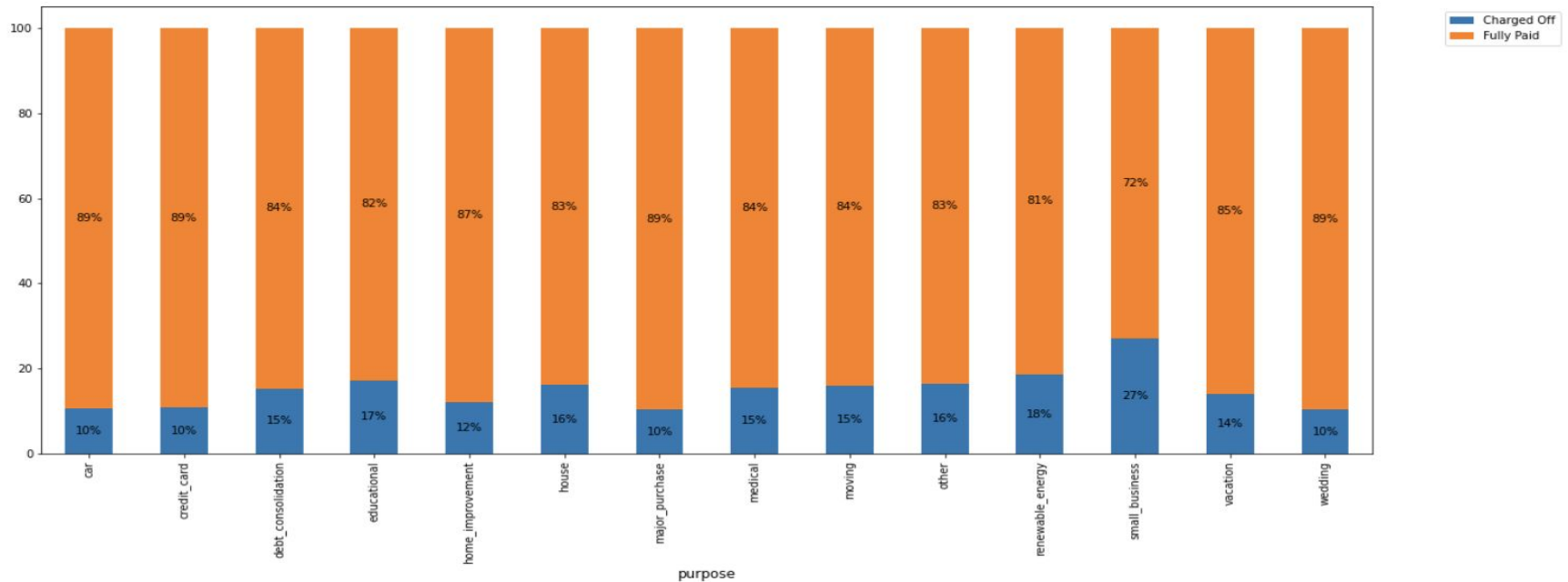


Maximum number of loans are granted for a term of 3 years



Maximum number of loans are with grade of A and B

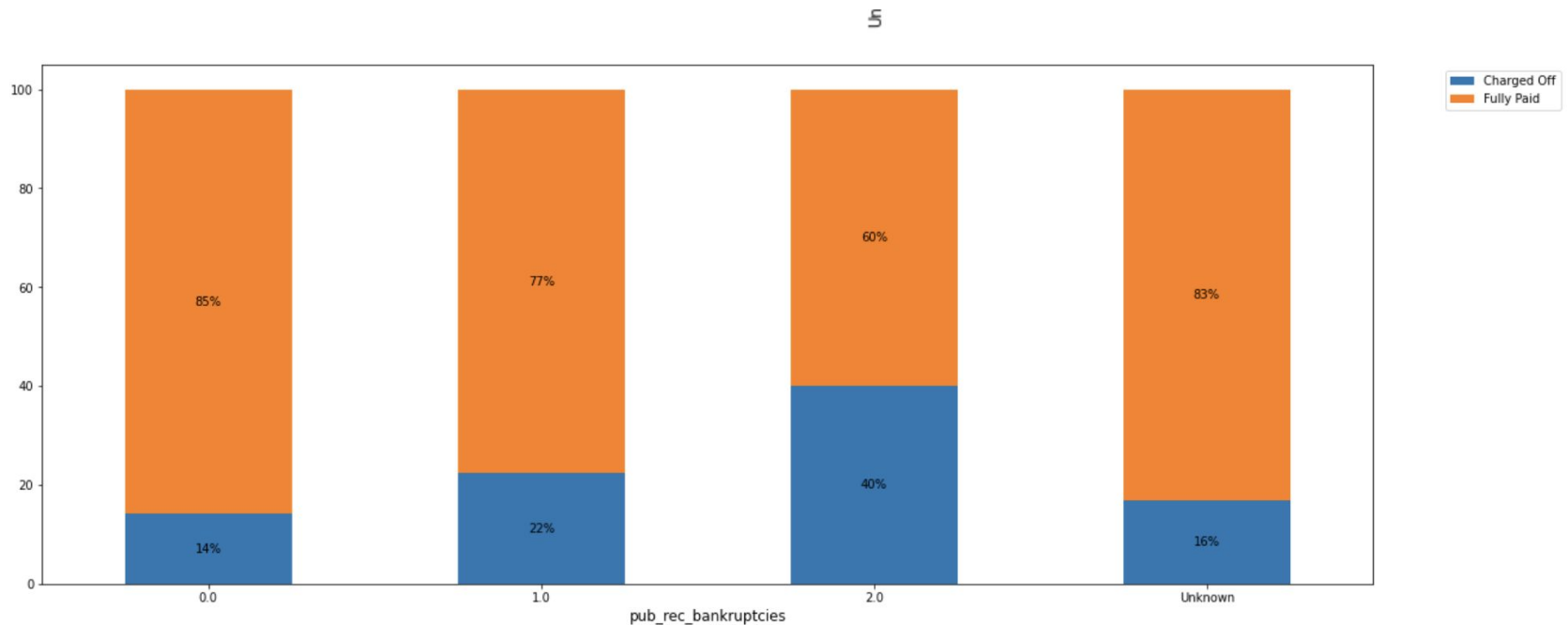
# Analysis on defaults by loan purpose



Around 25% of loans taken for small business has been charged off

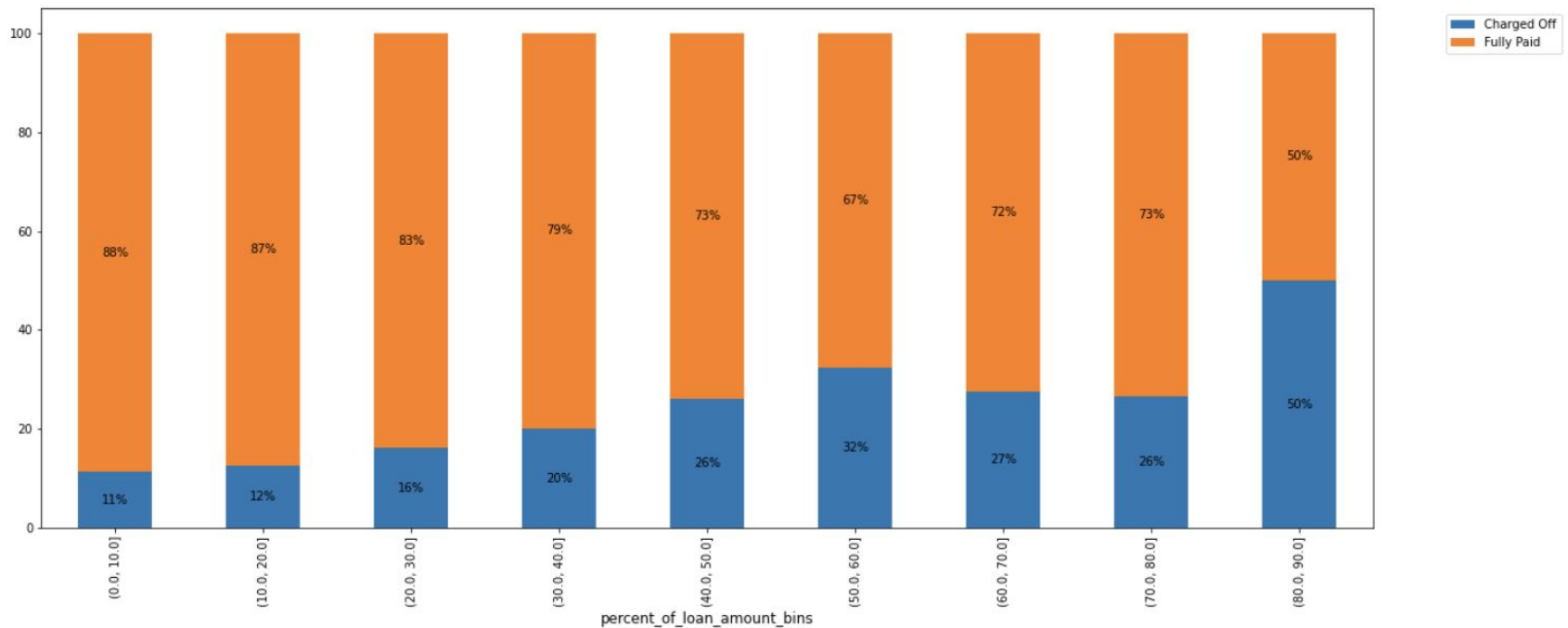


# Analysis on defaults by prior records



Default percentage increases with increase in bankruptcies records. It is always preferable to avoid issuing loans with applicants having bankruptcies.

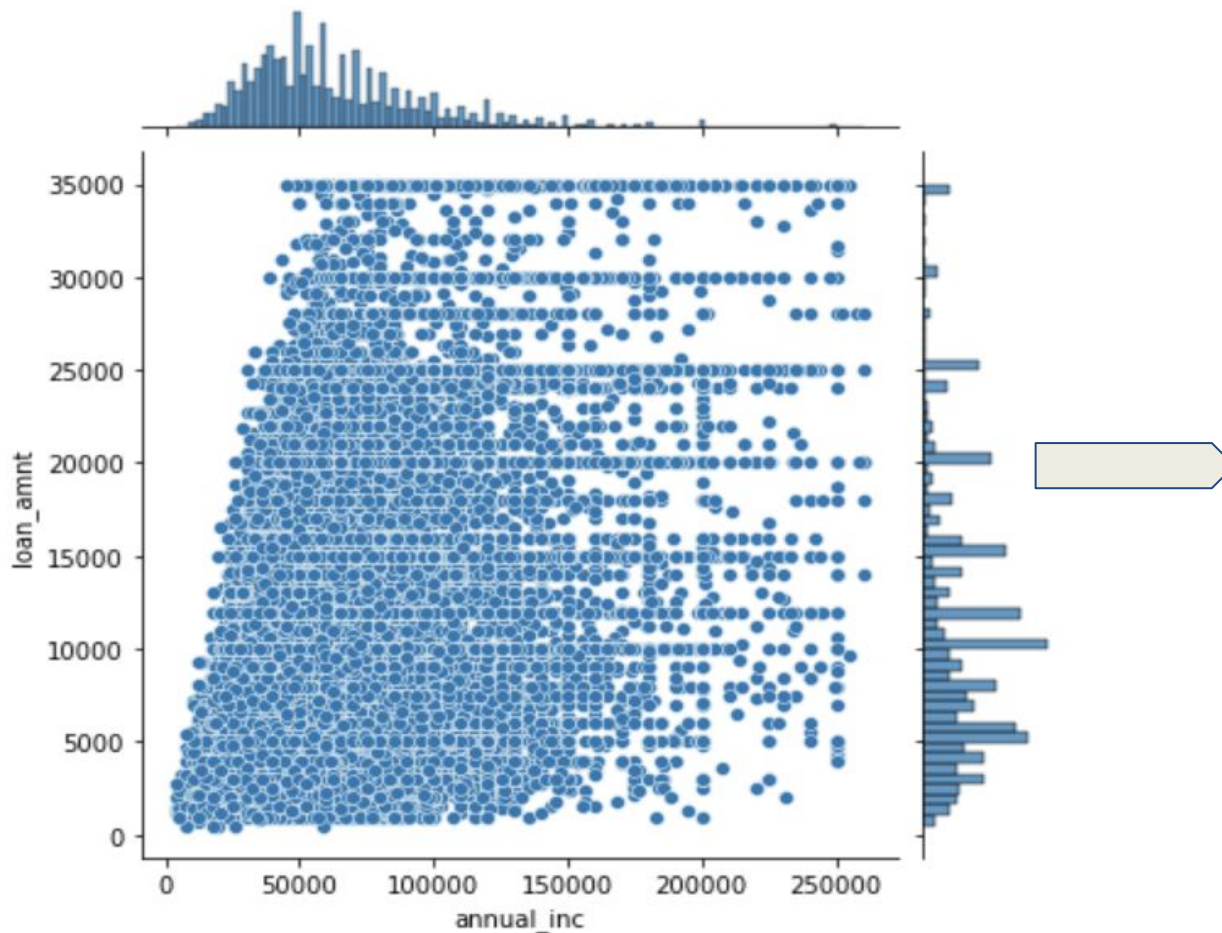
# Analysis on defaults by % of loan amount in annual income



Defaults are low for loan amount less than 20% of annual income

Loan amount  $\geq$  30% of annual income can mostly lead to default

# Analysis - Defaults by % of loan amount in annual income cont...



In the Lending Club dataset, loans of high amount is given for the people having low income.

We can see that the for the people having annual income < 50000 has loan amounts around 25000

# Recommendations

- Avoid issuing loans where loan amount to annual income ratio is  $> 30\%$ .
- Minimize issuing loans to small business.
- Reduce approving loans to applicants having previous bankruptcy records.
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