



# LENDING CLUB CASE STUDY

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# AGENDA

INTRODUCTION

DEFINITION

EDA ON CASE STUDY

INFERENCE/RECOMMENDATIONS

CLOSING



# INTRODUCTION

## Problem Statement

A Consumer Finance Company which provides loans to customers wants to cut down bad loans and wants to understand which all factors are there which could possibly lead to Accounts getting Charged Off

So ,in a nutshell, Consumer Finance Company wants its Analytics team to perform some operations on applicant's profile, assess and basis on drivers input – Wants to reduce their risks and increase Profit Margins





# DEFINITION

**Charged\_off\_Account** - This is Bad loans category wherein Applicant has not paid the instalments in due time for a long period of time and has defaulted on the loan

**Not\_Charged\_off\_Account** -

- a) Fully paid
- b) Current where Applicant is in process of paying the instalments , i.e. Tenure of loan is not yet completed and cannot be considered as 'defaulted'

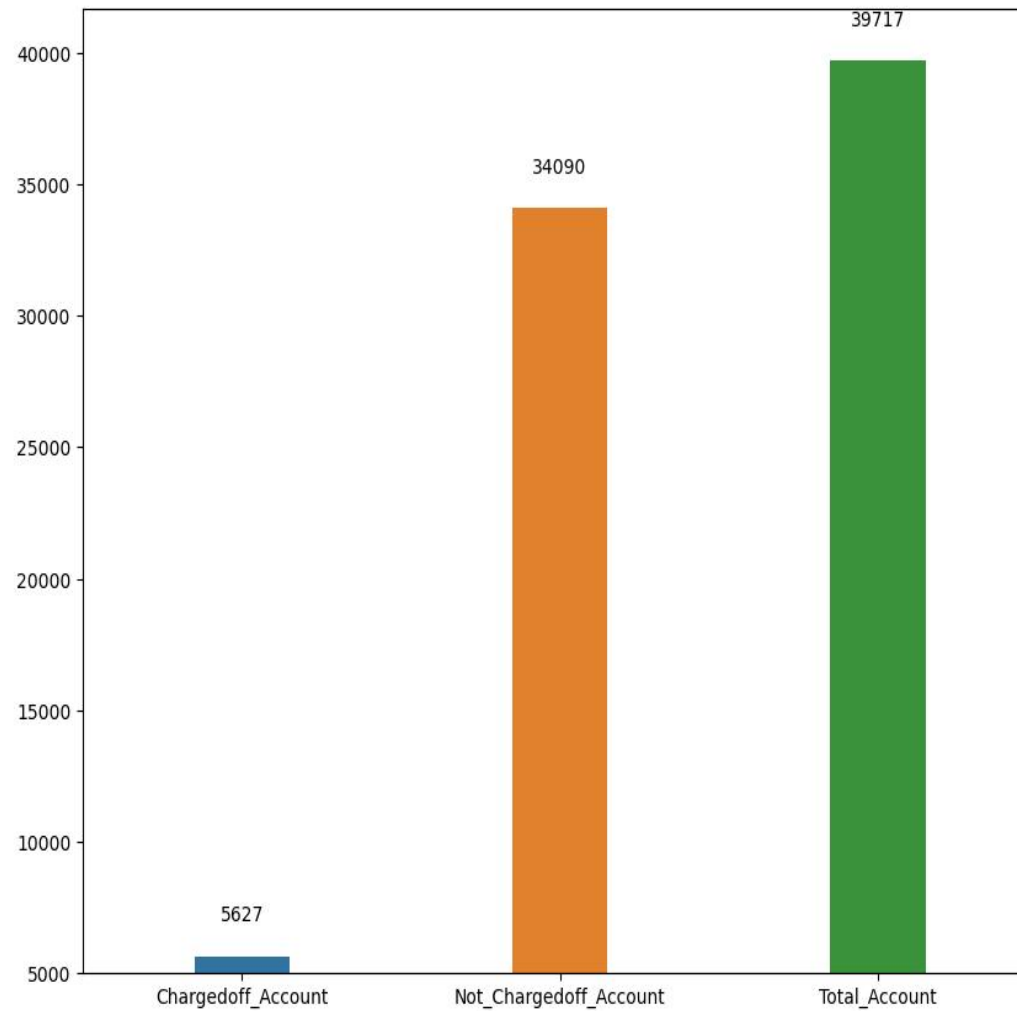
**Total\_Account** - Total records of Charged off + Not Charged off Accounts

LET'S DIVE IN

### Loan Status Category

- Out of Total 39717 database records of loan status – 5627 were Charged off (bad loans) ~ 14%
- *So all our further analysis will be focused on these set of customers*

*Loan Status Category -*



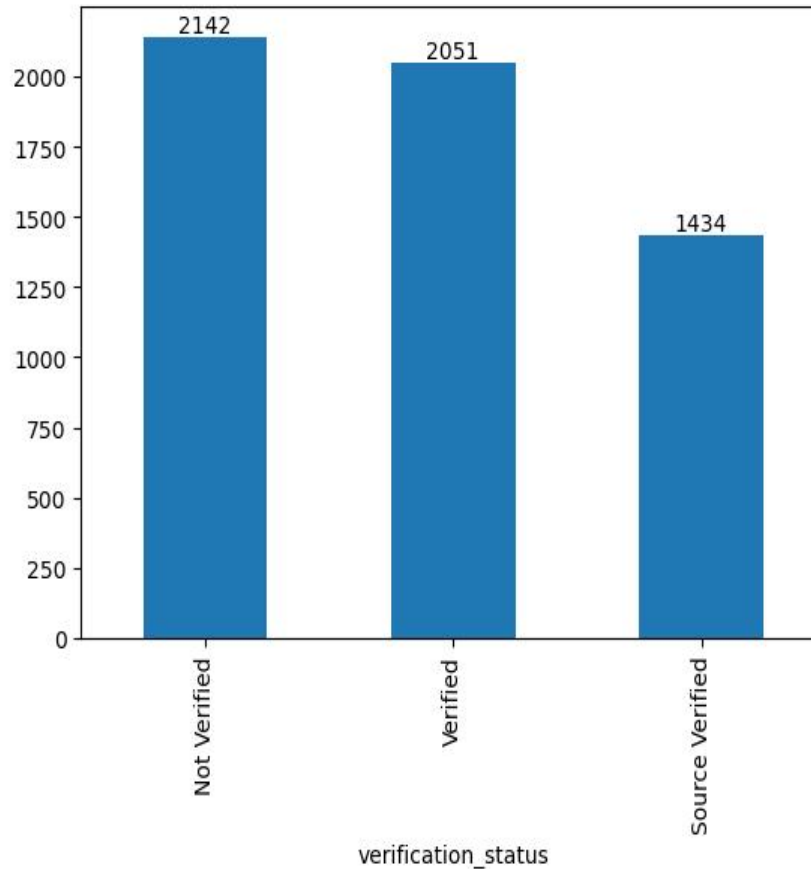
## Verification Status Summary –

- Accounts not verified were the largest contributor in Charged off Accounts ~2142 out of Total 5627 Charged Off Accounts (bad loans)
- This contributed to 38% accounts out of Total Charged Off Accounts

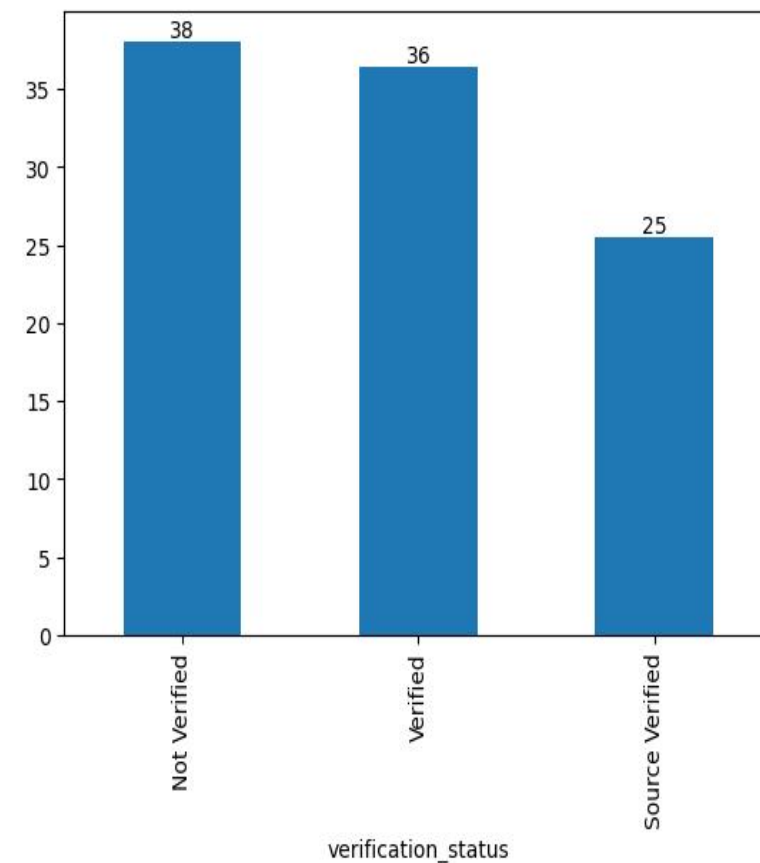
## Inference –

- Finance Company must Verify 100% of loan applications before processing loans

*Records of Verification status captured for Charged off accounts*



*% Split for Verification status captured for Charged off accounts*



## Purpose Category of Charged off Loans–

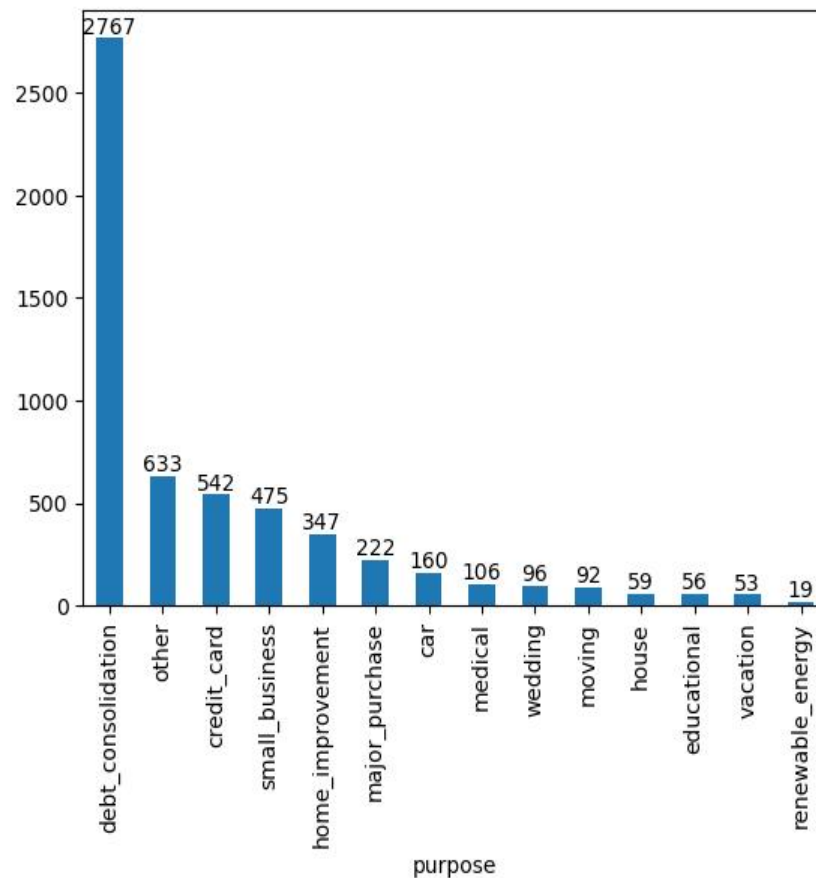
- If we look at the loan purpose of the Customer – Debt Consolidation and Credit card were in the Top 3 categories
- Debt Consolidation contribution was 49%
- Credit card contribution as a loan purpose was 10%

## Inference –

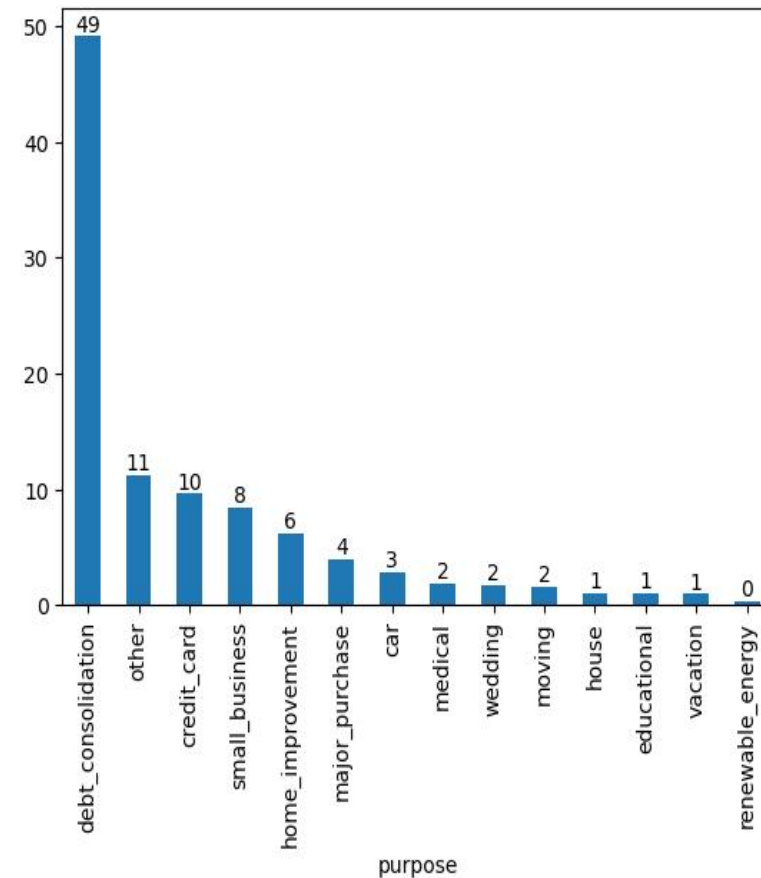
- So almost 60% Charged off Loans had Debt Consolidation and Credit card as a loan purpose

*Debt Consolidation applications to be scrutinized diligently*

Purpose of loan captured for Charged off accounts



% split for Purpose of loan captured for Charged off accounts





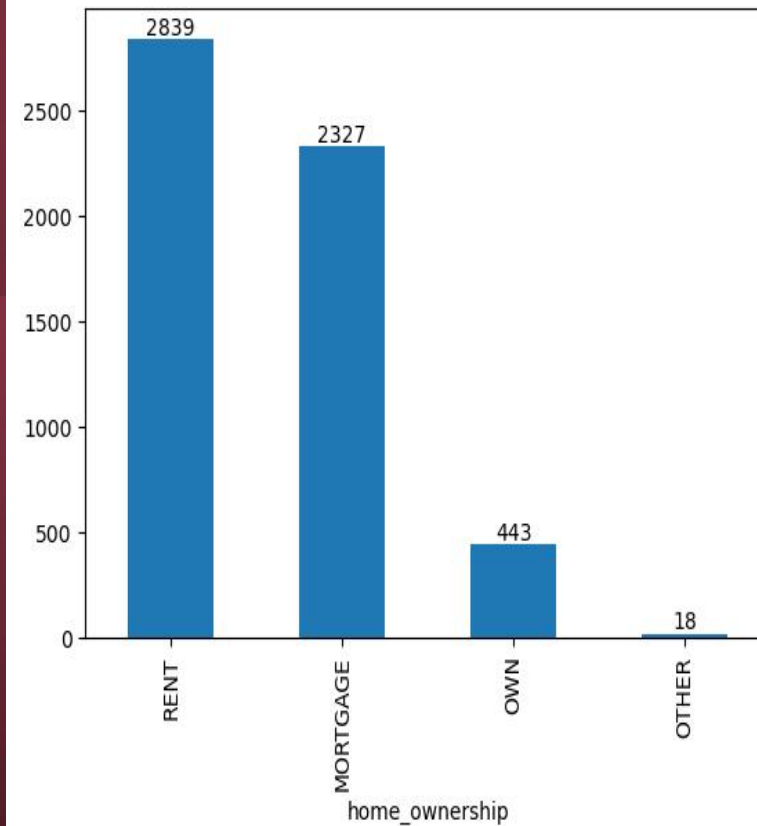
## Home Ownership Category of Charged off Loans–

- Rent and Mortgage were the Top contributors
- Customers on Rent were 50%
- Customers on Mortgage were 41%

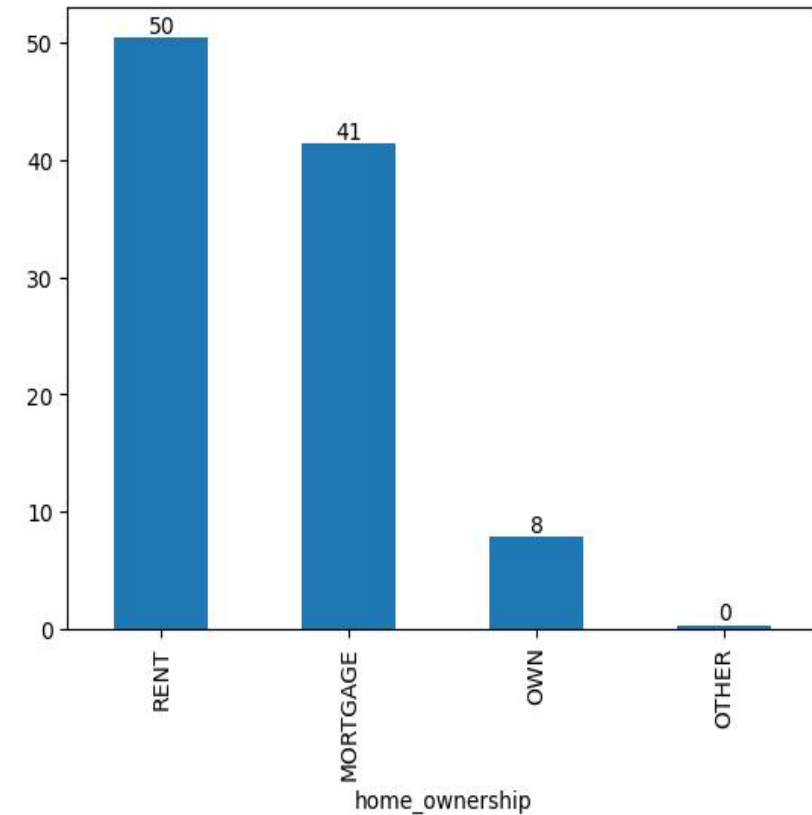
## Inference –

- Output suggests that Finance Company has to be extra careful while giving loans to Rent and Mortgage segment

*Home Ownership Category captured of customers who defaulted*



*% split for Home Ownership Category captured of customers who defaulted*





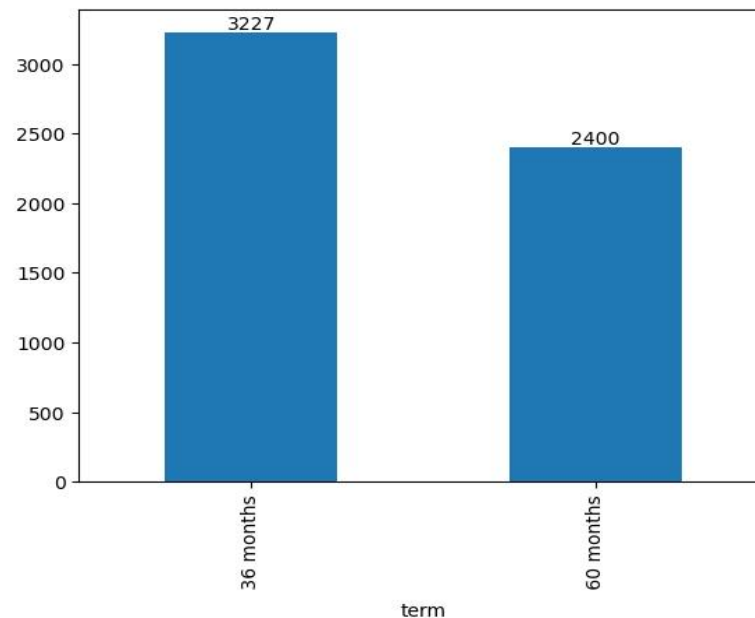
## Loan Tenure of Charged off Loans–

- Loans of lesser tenure got defaulted the most
- 36 months loan tenure got defaulted more by 14% extra than 60 months loan tenure

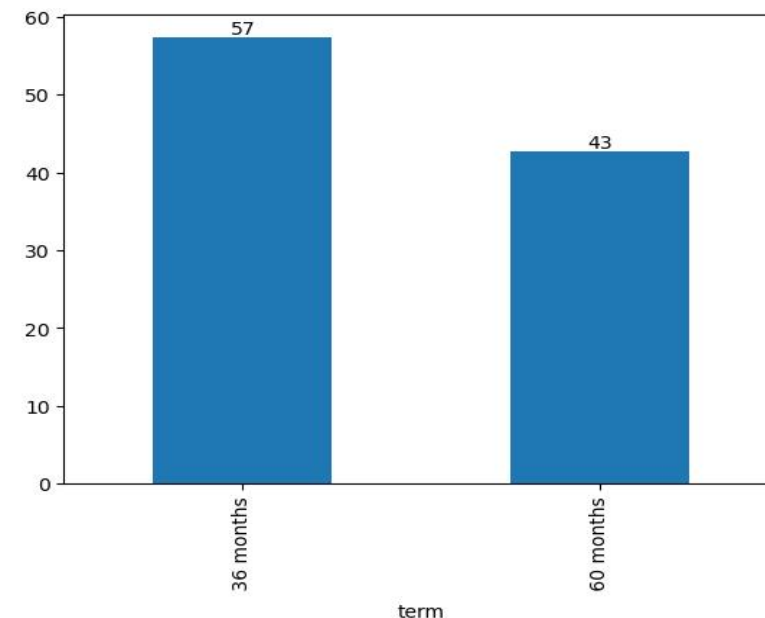
### Inference –

- Output suggests that Finance Company should give more flexibility to Customers in terms of loan tenure which could possibly reduce defaults

*Loan Tenure captured of customers who defaulted*



*% split Loan Tenure captured of customers who defaulted*



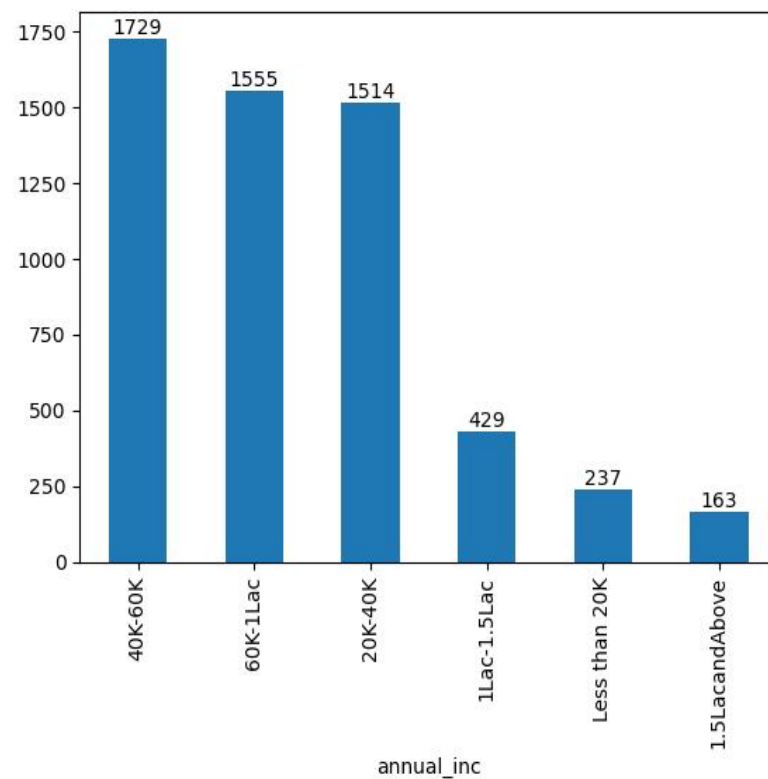
## Yearly Income Bucket of Charged off Loans–

- *Less than 40K salary contributed to 31% loan defaults*
- *Less than 1 Lac contributed to 89% loan defaults*

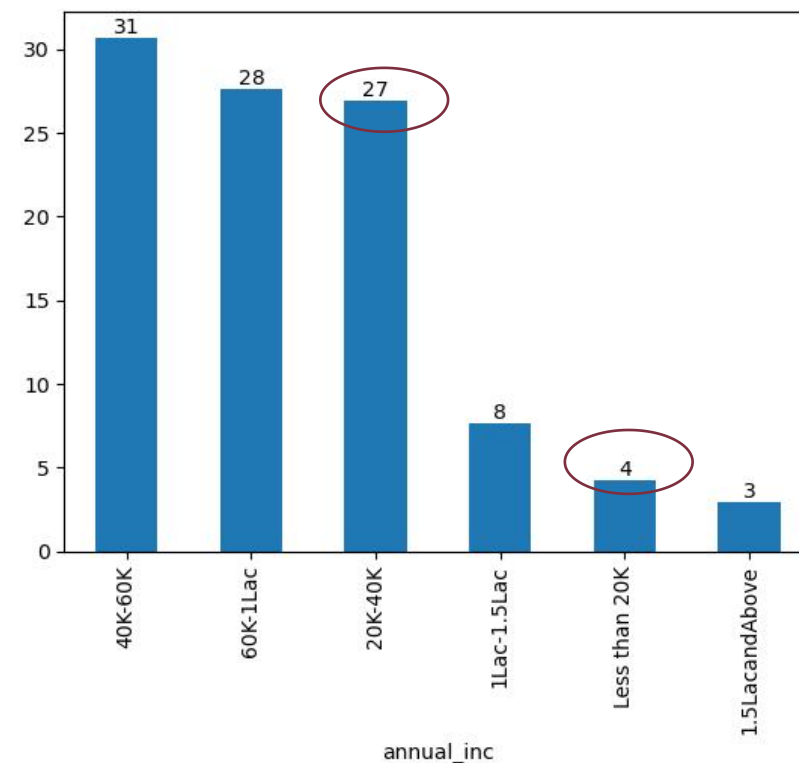
### Inference –

- *Output suggests that Finance Company should reconsider Yearly income criteria while processing loans and avoid giving loans to Consumers if their Yearly Income is less than 1 Lac*

Yearly income bucket of customers who defaulted



% split Yearly income bucket of customers who defaulted





## SUMMARY

- Finance Company must Verify 100% of loan applications before processing loans
- Applications for Debt Consolidation and Credit card as a loan purpose to be scrutinized diligently as these two accounts for ~60% loan defaults
- Finance Company has to be extra careful while giving loans to Homeownership as Rent and Mortgage segment
- Finance Company should give more flexibility to Customers in terms of loan tenure which could possibly reduce defaults
- 89% loan defaults for yearly income less than 1 Lac - Finance Company should reconsider criteria of Yearly Income and should possibly avoid if yearly income is less than 1 Lac

The background is a dark grey, almost black, field. Scattered across it are numerous small, white, semi-transparent dots. These dots are interconnected by thin, white, semi-transparent lines, creating a complex, web-like or molecular structure. The lines and dots vary in opacity, giving a sense of depth and movement. The overall effect is reminiscent of a network diagram, a molecular model, or a digital data visualization.

THANK YOU