**Assignment#1** : **Lending\_Club\_case\_study**

**Github Repo:**

https://github.com/Jahid7786/LendingClub\_CaseStudy

https://github.com/Abalaji2308/LendingClub\_CaseStudy

**Observations** :

1. LOAN\_AMOUNT : Loan amount greater than 15000 dollars have higher default rate

2. FUNDED\_AMOUNT : Funded amount greater than 15000 dollars have higher default rate

3. FUNDED\_AMOUNT\_INVESTED : Funded amount invested greater than 15000 dollars have higher default rate

4. INTEREST\_RATE : As Interest rate increases the default rate increases steeply

1. (5, 10]-> 6.739748%
2. (10, 15]-> 14.820089%
3. (15, 20]-> 24.826918%
4. (20, 25]-> 38.441558%

5. ANNUAL\_INCOME : As the annual income increase the default rate decreases

6. DTI : As dti increase the default rate increases

7. MONTHS\_SINCE\_LAST\_DELINQ : Crime committed between 90 to 110 days have higher default percent

8. TERM : 60 months term have a higher default rate than 36 months term

9. GRADE : As the Grade decreases (A B C D E F G) default rate increases

10. SUB\_GRADE : As the Sub Grade decreases (A1 A2 B1 B2.....) default rate increases

11. VERIFICATION STATUS : Percent of loan defaulted is higher for verified borrowers

12. PURPOSE : Small business borrowers have high default rate

13. PUBLIC\_BAKRUPTIES\_RECORD : One or more public bankruptcies have higher default rate

14. STATE : Percent of loan defaulted is very high for state NE and high for NV and SD

15. EMPLOYEE TITLE : The following have the highest default rate among the top 20 title by frequency:

1. walmart -> 25.242718% 2. united parcel service -> 22.448980%

16. ZIP CODE : The following have the highest default rate among the top 20 zip code by frequency:

1. 917xx -> 20.882353% 2. 331xx -> 20.771513%