

# LENDING CLUB CASE STUDY SUBMISSION

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AND

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Lending Club wants to understand the driving factors behind loan default.

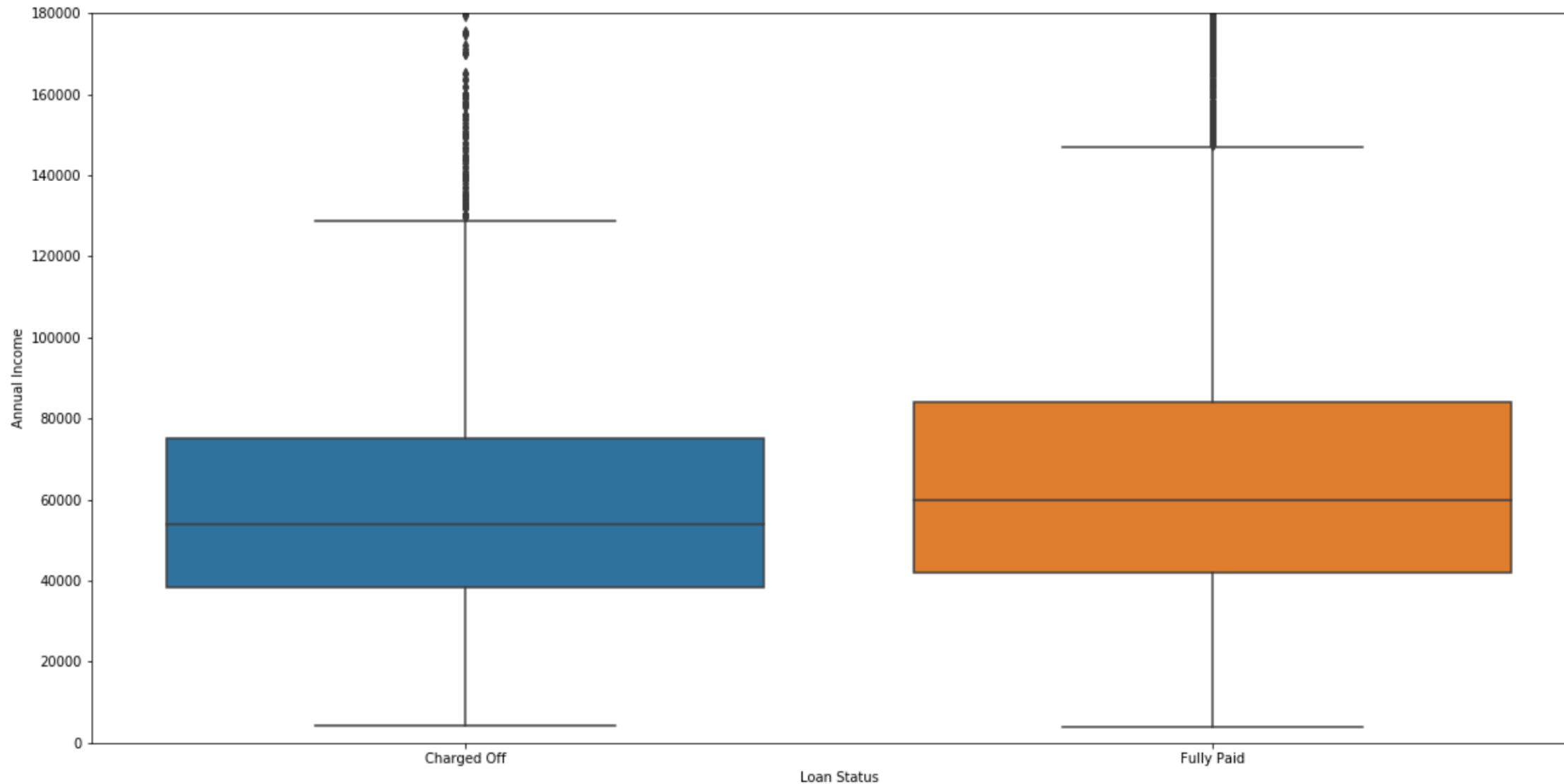
Lending loans to 'risky' applicants is the largest source of credit loss for Lending Club.

The company wants to identify the risk factors that needs to be considered while approving a loan application.

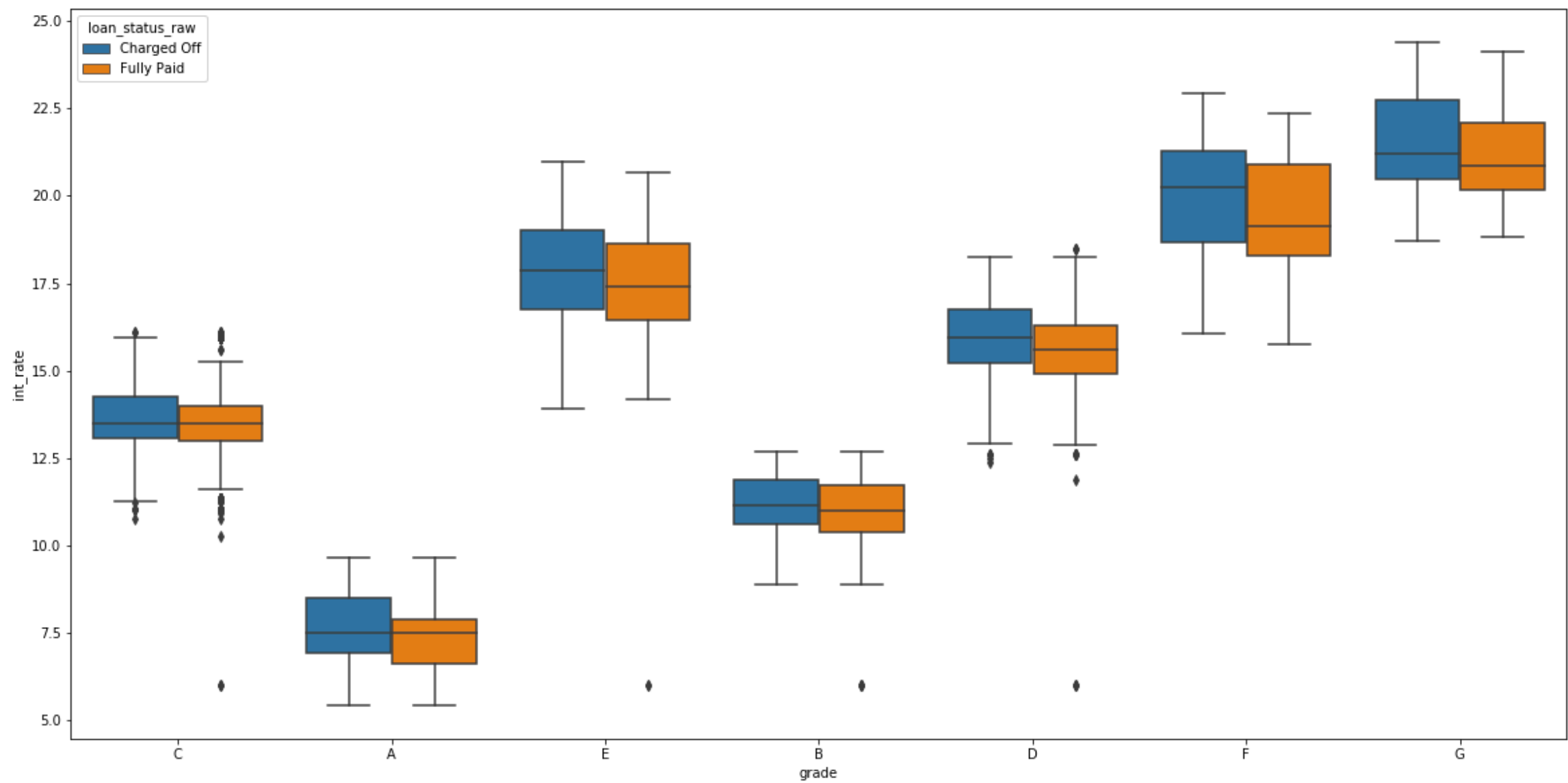
If such risk factors could be identified, then default rate could be reduced thereby cutting the amount of credit loss.

Identification of such applicants using EDA (Exploratory Data Analysis) is the aim of this case study.

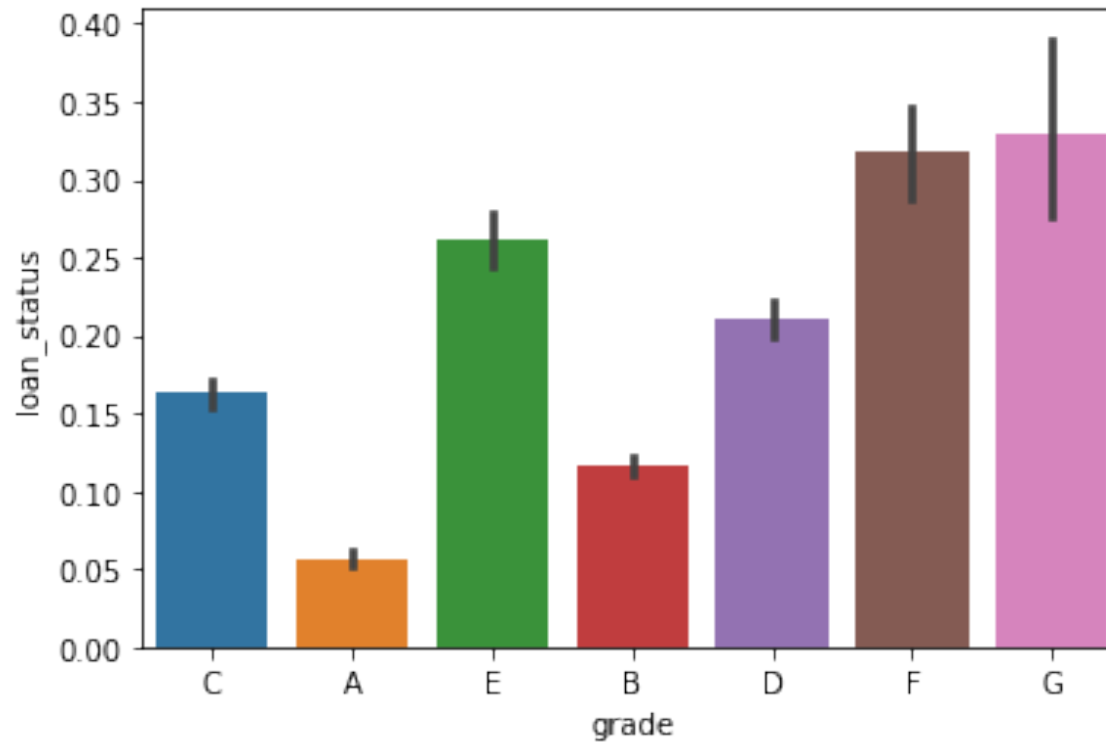
# Very low Income Earners are offered Loans



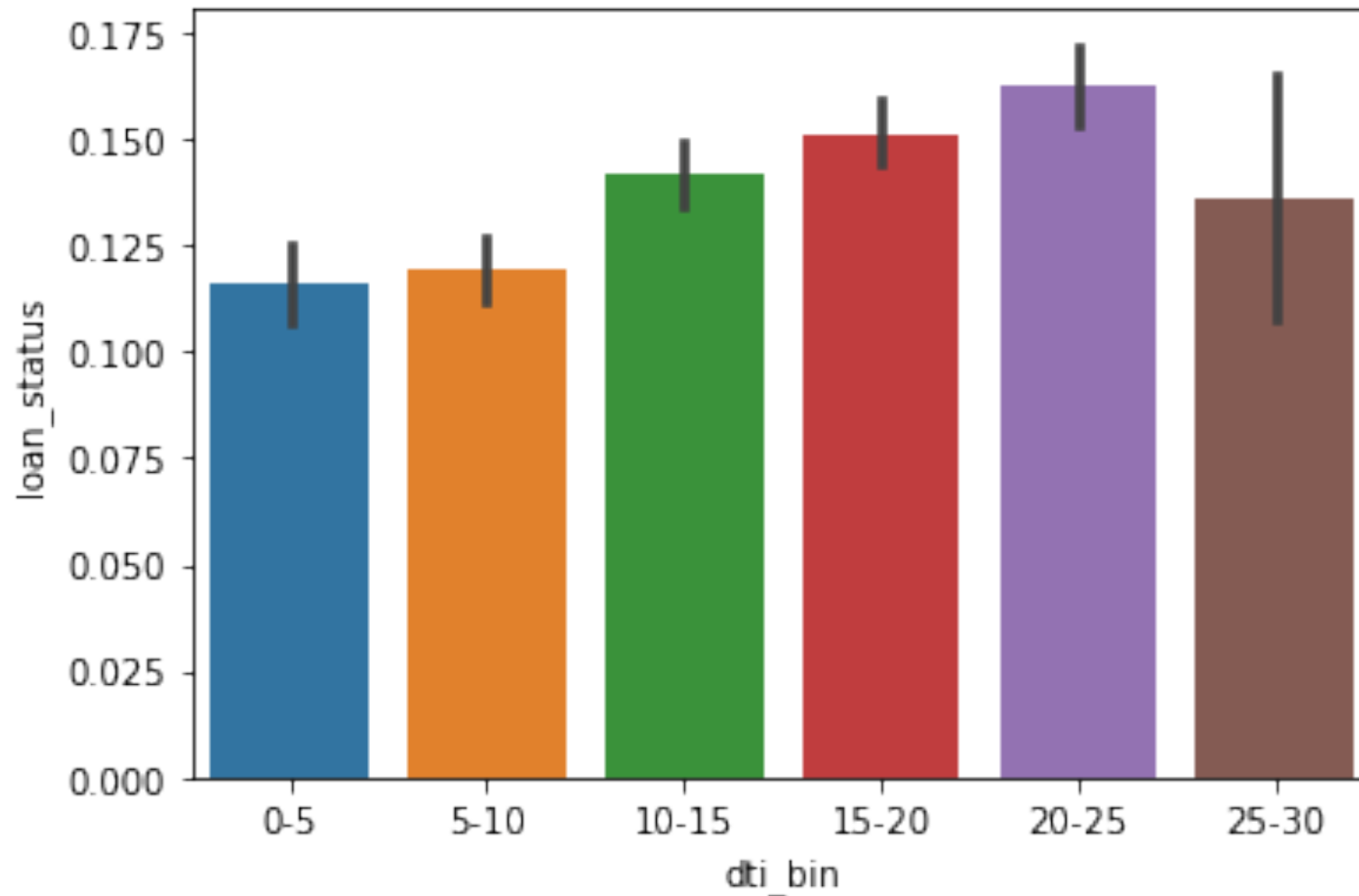
# Interest Rate Offered to various Grades



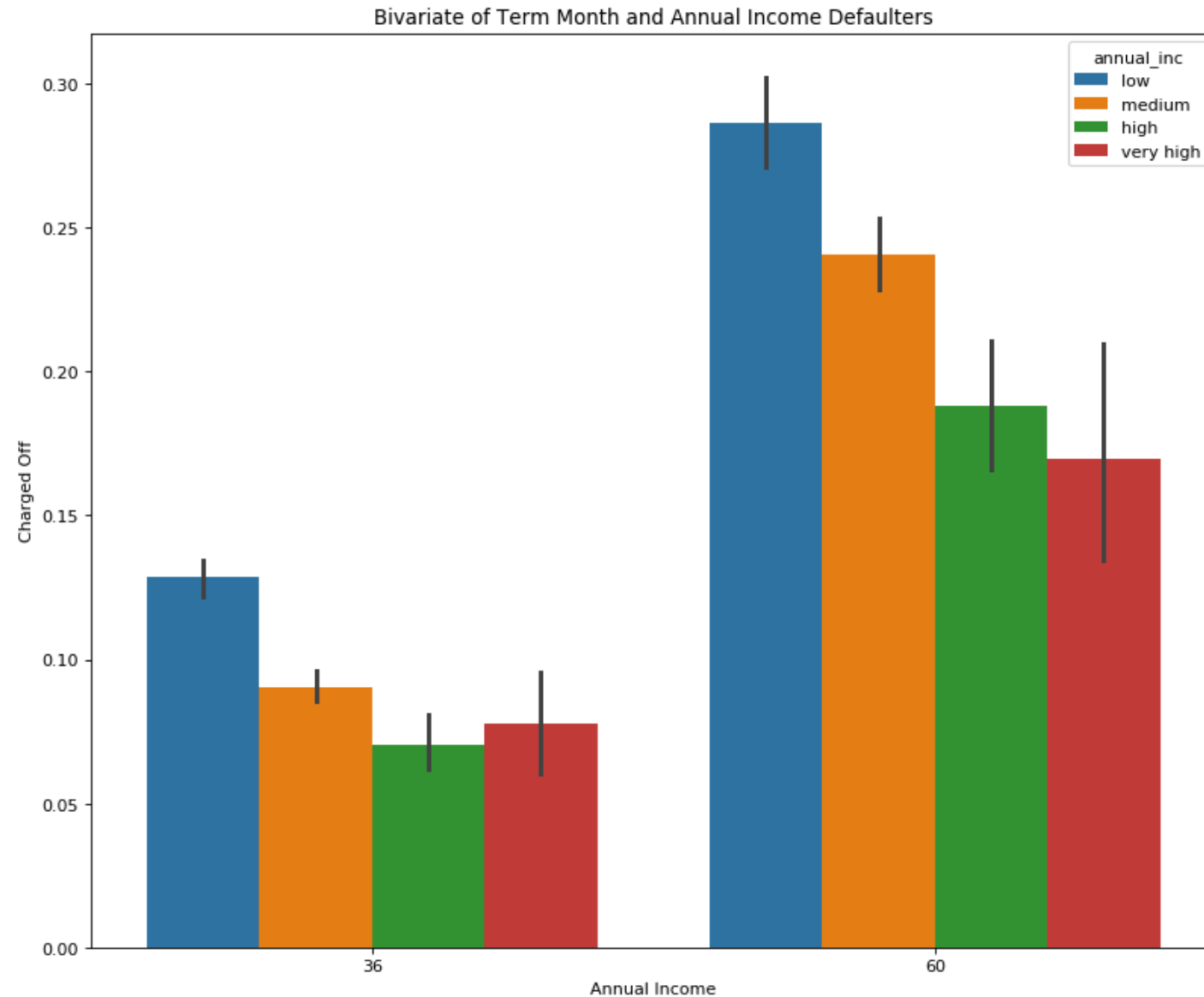
# Top Grade Defaulters

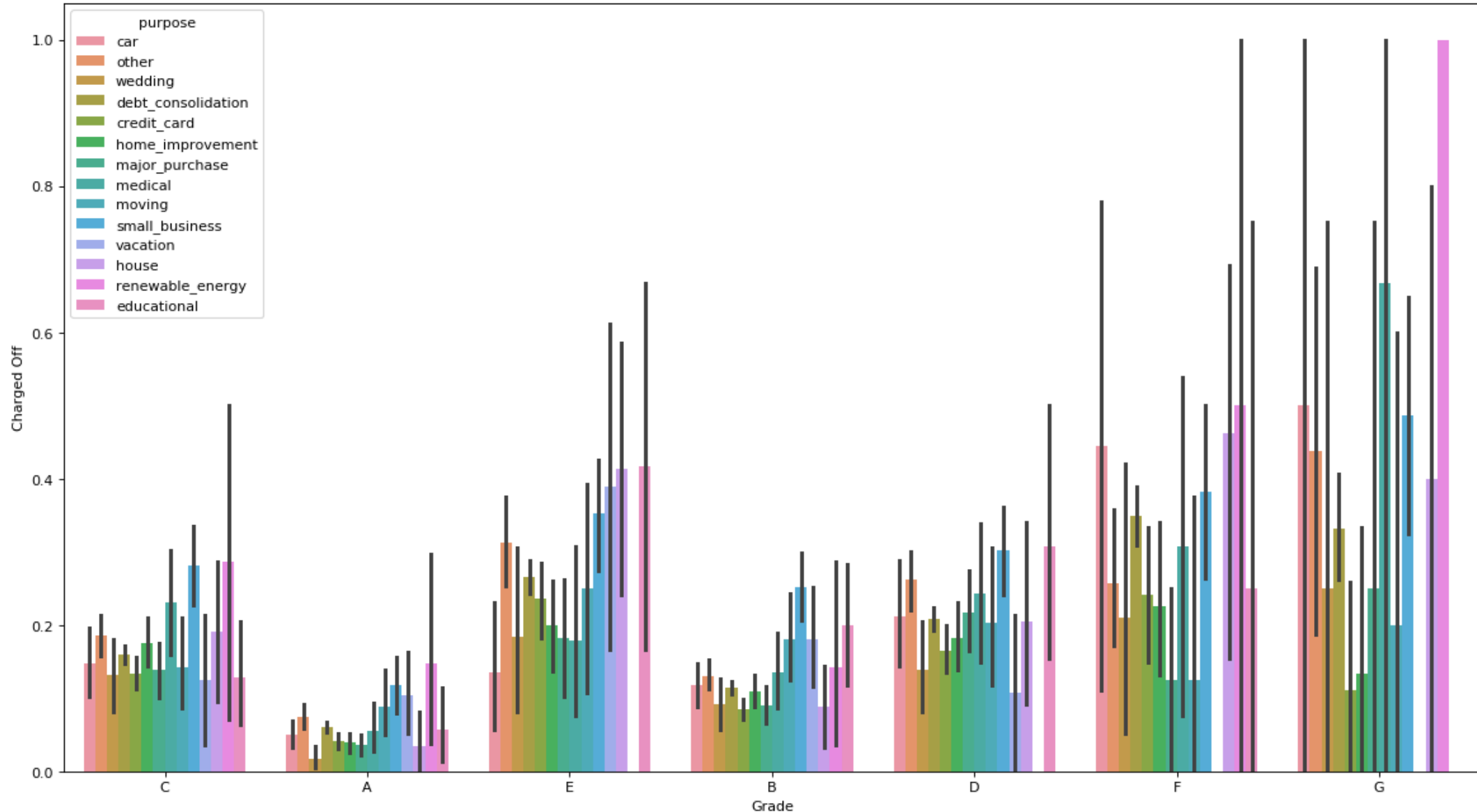


## Most Defaulters have 20-25% Debt To Income Ratio



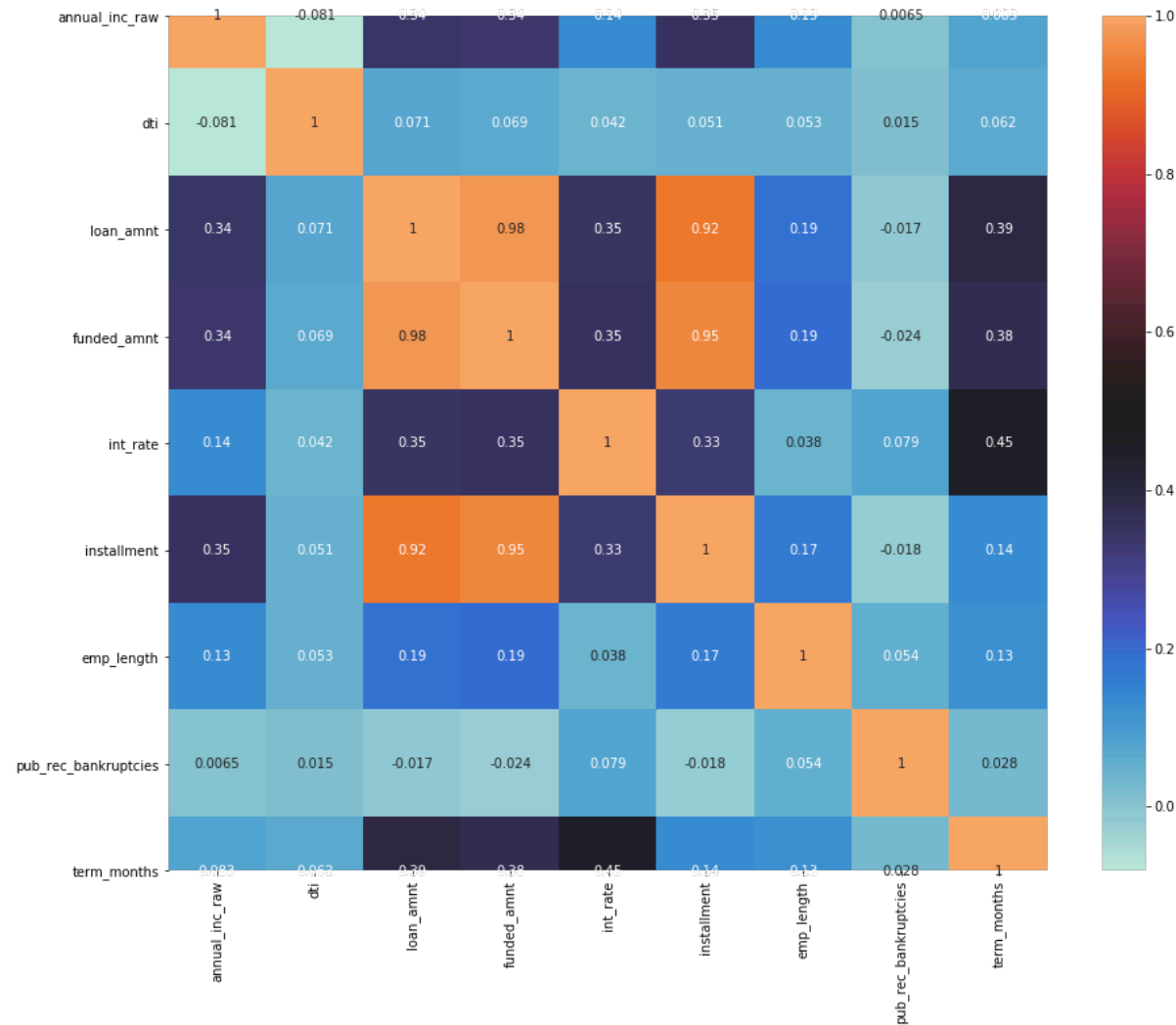
# 60 Month loan term defaults most







# Heatmap



Unfortunately there's not much correlation among other variables

# Conclusion

1. We can conclude that people with very low annual income upto 4000\$ were offered loans. It shows a trend within Lending Club to approve high risk loans.
2. Trend shows most defaulters have 20-30% debt to income ratio. People having 20% or more DTI(debt-to-income) should be rejected.
3. **G** and **F Grade** application are Top defaulters which also falls under low to medium income groups.
4. The Top Purpose among Top default rate Grades are

Grade: G

1. Renewable energy
2. Home Improvement
3. Small Business

Grade: F

1. Renewable Energy
2. House
3. Car

5. The applicants who falls under **G & F** grades and stating purposes like Renewable energy, Small Business etc should be rejected because they tend to default most.
6. There's more than twice defaulters who opt for 60 month loan term seen among all income groups. We should consider dropping 60 month offering to clients.