Case Study

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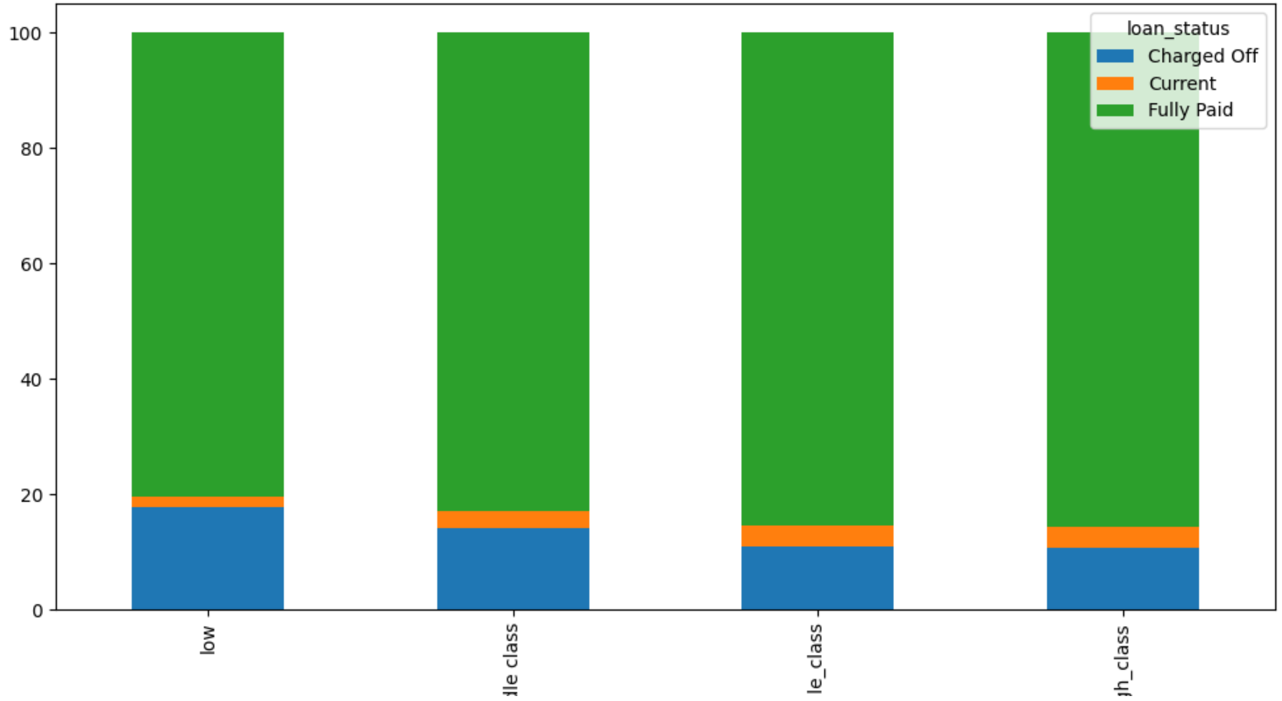
Problem Statement

- A lending company wants to investigate if there are key driving factors that could affect if a person would default, or not pay back their loan.
- Loan Statuses have 3 outputs, fully paid off, current, and charged off.
- The variables that were investigated are income, verification status, loan grade group, and home ownership.

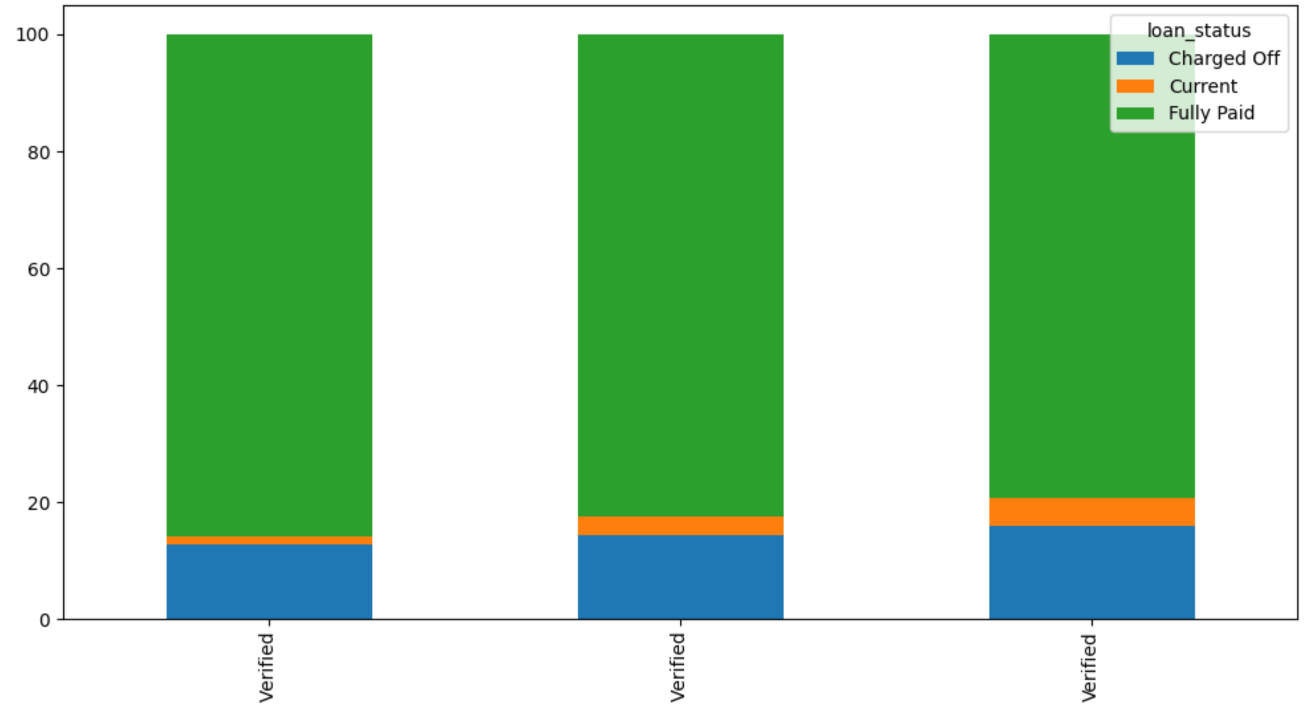
Income

- Income does play a factor in how often loans are paid back. Those with low income have a higher amount of charged off accounts than any other group. Additionally, this group has the least amount of currently paying loans as well.



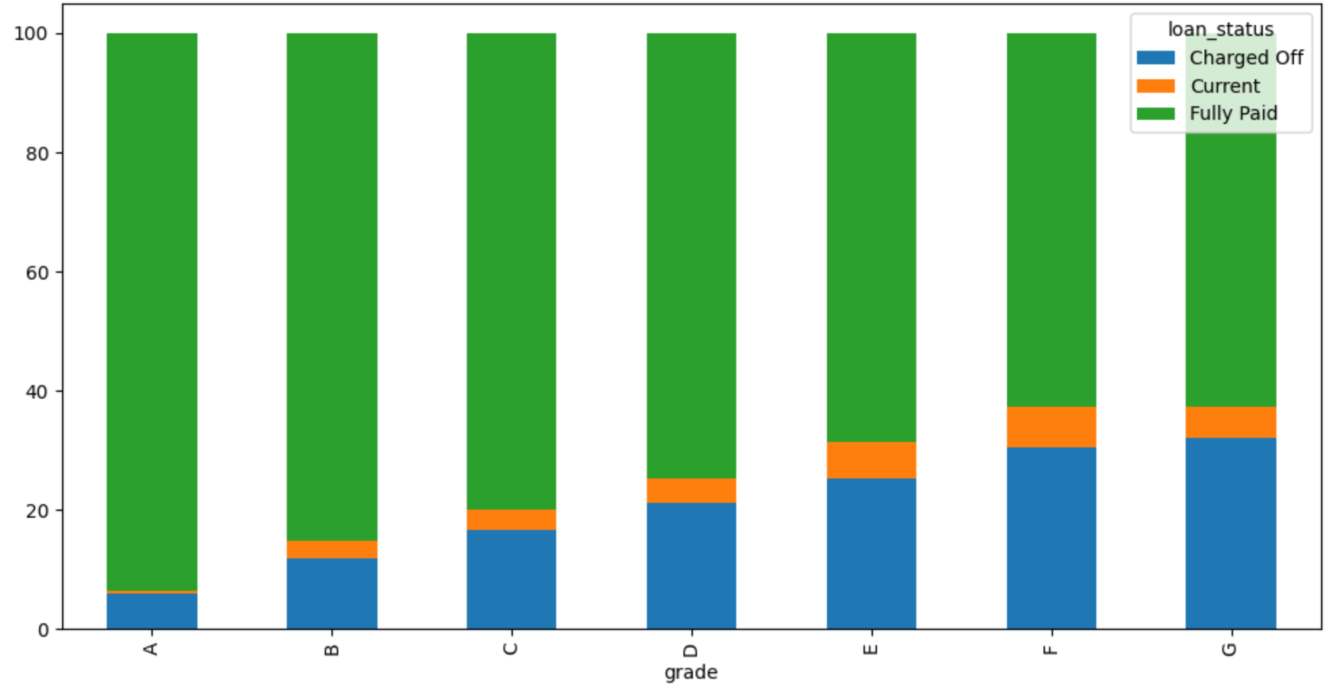
Verification Status

Verification status is not a strong indicator if a group will pay the company back. There is not a big range of difference in the groups.



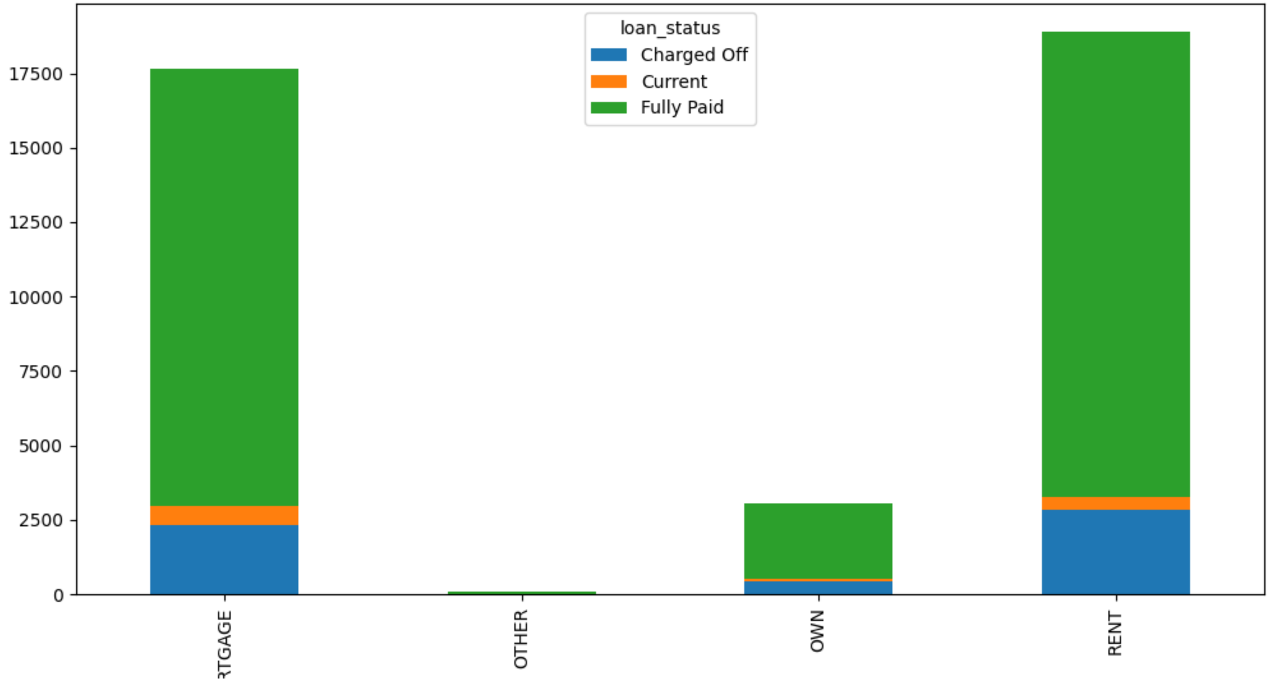
Grade Status

Grade status is very indicative if a customer will pay the company back. Those that are assigned in the A group have the highest amount of fully paid accounts and lowest amount of charged off groups. G group is the inverse of A group while it has the highest amount of charged off accounts and lowest amount of fully paid.



Home Ownership

Home ownership does play a role in whether or not a customer even takes a loan. Those who own or have other home situations do not seem to take a loan as often as those who rent or have a mortgage. It does not seem to play a huge role in whether a customer would be likely to pay back the company.



Conclusion

- In conclusion, income and grade status are good indicators if a customer will pay the company back. Home ownership plays more of a role on whether an individual will even take a loan but does not strongly indicate whether a customer would be likely to pay back the company. Verification status is not very indicative if a customer will pay the company back.