Home Credit desires to know safe borrowers in a customer base that is unfamiliar with banking and give the customer a plan for successful loan repayment. Lending to those who are more likely to default on loans decreases the profits of Home Credit and results in negative customer experiences. This project will give Home Credit an improved customer segment that will successfully repay their loans, by using the analytics of:

1. Predict which customers will be good borrowers, using a classification method based on customer financial behavior data provided.
2. Building a multiple linear regression model to see the relationship between loan attributes and customer behavior based on the data, leading to successful repayment.
3. A calculation financial modeling algorithm that will use the loan information to develop a repayment plan for the customer.

Home Credit will be able to identify if a customer is a safe candidate to lend to, then create a personalized customer loan and repayment plan to be accountable for, resulting in an increase in revenue, improved customer experience, and lower default rates. The benchmark for the success of this project would be to have an increase in the number of loans given to trustworthy customers, while lowering default rates by using the calculated customized loan repayment plan. The project deliverables will be a list of customers that are trustworthy to receive loans and a user-friendly program that the loan officer can use to easily develop a loan amount and repayment plan specific to a customer to achieve successful repayment and financial freedom. This project will be completed by Justin Hamilton, Rachel Butterfield, Debayan Dutta, and Sampoornaa Ghosh. The project and deliverables will be completed August 2, 2023, with the presentation taking place July 26, 2023, allowing project implementation and observation in Quarters 3 & 4.