# Home Credit's Trusted Borrowers Prediction

## Business Problem

Individuals with insufficient credit histories often struggle to receive a loan from trusted lenders. Consequently, many individuals in a similar situation are taken advantage of and ultimately exploited. Home Credit aims to create a safe loaning environment for that population while being profitable for the company. The purpose of this project is to reasonably maintain inclusivity and accessibility while predicting which applicants will repay their loans.

## Benefit of a Solution

The advantages of predicting trusted borrowers are as follows.

- The company can better determine who to accept into the program, potentially saving Home Credit substantial amounts of money.
- The underserved population can have a positive loan experience through curated repayment calendars.

## Analytics Approach

This will be a *predictive analytics* project. This will include:

The likelihood of customers repaying their loans will be generated using a supervised classification algorithm. The model will take a balanced approach to inform credit decisions without using too much historical data, considering that the population being served is unbanked. Therefore, other inputs such as customer demographics will be more heavily weighed in the model. A few of these customer demographics include the client's gender, whether they have owned a car, how many children they have, their highest level of education received, etc. Moreover, the target variable is whether customers will repay their loans, which is binary (yes or no).

## Success Metrics

This project will be a success if there is an increase in clients that can responsibly attain and pay back loans. Any scenario in which the company is profiting and providing a safe environment for the unbanked is a success in our minds. To further the success of the project, we will also output the probabilities of the predicted target variable.

## Project Scope

The primary deliverables for the project are as follows.

- Deliverable of EDA findings and model predictions.
- GitHub repository deliverable, including code and README files.
- Visually appealing slide deck that clearly conveys project findings.

Please keep in mind that an explanation of *why* certain applicants are rejected will not be included. That analysis is out of scope for the current project.

## Details

The project is expected to be done by week 16. Below is a list of important information.

- Alexia Wells will be a project lead, please reach her by email for questions.
- There will be an exploratory data analysis deliverable by week 4.
- Project modeling will be completed by week 10.
- A report of the findings and modeling analysis will be in progress after week 10.
- A live presentation will be given on either week 15 or 16.
- The GitHub repository will be finalized a few days after the final presentation.