Business Problem Statement- Home Credit Default Risk

Home Credit aims to tackle the challenge of providing access to loans for individuals, especially those without established credit histories, who often face difficulties in obtaining loans from traditional financial institutions. This situation can leave them vulnerable to unscrupulous lenders who impose high interest rates and unfair terms. Home Credit's mission is to promote financial inclusion by extending lending opportunities to the unbanked population, offering a secure borrowing experience. Their goal is to ensure that loans are extended to individuals with the capacity to repay and with loan terms designed to empower borrowers to succeed. The company envisions benefiting from a solution that reduces the risk of loan defaults while enhancing the overall customer experience. Home Credit can also expand its customer base by reaching underserved segments of the population, ultimately increasing its market share. An improved lending process, driven by accurate and efficient machine learning models, is expected to lead to reduced financial losses, greater customer trust, and potentially more favorable interest rates for borrowers. Ultimately, the successful execution of this project should result in a lower default rate among borrowers.

The project's scope involves the development of machine learning models to predict the probability of loan default for Home Credit clients. We plan to employ a supervised classification technique like logistic regression, which will aid in evaluating the creditworthiness of clients. For each loan application in the test set, the models will generate a probability of default as the target variable. Based on these predicted probabilities, Home Credit will make lending decisions for individual customers. The project will be handled by a group of Data scientists and analysts. The timeline for the project will depend on its complexity and scale, but it is anticipated to take 2 to 3 months to complete. Key milestones in the project include stages like data collection and preprocessing, model development, model validation, and model deployment. The successful conclusion of this project aligns with Home Credit's mission to promote financial inclusion and simultaneously manage the risks associated with lending to clients who have limited or no credit histories.