# Group 3 – Project 4 Scope: Credit Loan Prediction Using Machine Learning

## 1. Introduction

This group project aims to utilize machine learning techniques, specifically using Scikit-learn, to predict various trends and outcomes related to credit loan data. Our dataset, sourced from Kaggle (https://www.kaggle.com/datasets/cs49adityarajsharma/credit-scoring-data), provides detailed information on credit scoring, including demographics and loan application details.

## 2. Project Objectives

The primary goals of this project include:

* • Predicting average loan amounts per type of loan
* • Analyzing average loan type per gender
* • Evaluating average loan amount per education status
* • Determining average term rate per type of loan
* • Exploring additional credit loan trends and predictive insights

## 3. Methodology

Our project will follow a systematic workflow consisting of the following phases:

* • Data Analysis: Cleaning and exploring the dataset to identify key variables and relationships.
* • Model Development: Using Scikit-learn to build machine learning models for prediction.
* • Model Testing: Validating the model performance and refining based on results.
* • Documentation: Creating detailed documentation to support our analysis and findings.
* • Presentation: Designing a PowerPoint presentation to communicate project outcomes.

## 4. Tools and Technologies

The following tools and technologies will be used in this project:

* • Python and Jupyter Notebook
* • Scikit-learn
* • Pandas and Matplotlib/Seaborn
* • Microsoft Word and PowerPoint

## 5. Team Contributions

Each team member will contribute to different aspects of the project including data preprocessing, model development, results interpretation, documentation, and final presentation design.