

# Internship Project Report

Task 1: Credit Scoring Model

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Domain: Machine Learning

Internship at CodeAlpha

## Objective

To develop a credit scoring model using Machine Learning to predict whether a person is creditworthy or not, based on their past financial data.

## Overview

A Credit Scoring Model is used by banks and financial institutions to decide whether a person is likely to repay a loan. Using Machine Learning, we can build a model that takes a data about a person Financial history and predicts if they are a 'Good' or 'Risky' customer.

### 1.Data collection

Collect past data of people that includes:

- Income
- Existing loans
- Loan repayment history
- Credit card usage
- Missed payments or defaults.

### 2.Data Preprocessing

Clean and prepare the data:

- Handle missing values
- Convert text to numbers
- Normalize all values to the same scale.

### 3.Model Building – Classification Algorithm

Use classification algorithm like:

- Logistic Regression
- Decision Tree
- Random Forest
- K-Nearest Neighbors

These algorithms help the model classify customers as Creditworthy (Yes) or Not (No).

#### 4. Model Training

Train the model with the collected data so it can learn patterns and make predictions.

#### 5. Prediction

Use the model to predict whether a new person is creditworthy based on their financial details.

#### 6. Evaluation – Accuracy Checking

Evaluating the model performance using:

- Accuracy Score

- Precision & Recall

- Confusion Matrix

#### Conclusion

Using Machine learning, we built a credit scoring model that helps predict if a person will repay a loan based on past financial behaviour. This helps banks and financial institutions make faster and smarter decisions.