

**Project Title:** Smart lender –applicant credibility for loan prediction  
**Project Design Phase-I - Solution Fit**

**Team ID:** PNT2022TMID35292

Define CS, fit into CC

### 1. Customer Segment

CS

Due to the rising number of loan defaulters as well as the lengthy loan approval procedure, our target customers are mainly banking institutions, small financial institutions that provide loans, and credit card companies.

### 6. Customers Constraints

CC

The loan request should not be handled properly by banks. A protected class is obviously treated differently when applying for loans than a non-protected class. The frequency of loan defaults is rising. As a significant amount of a bank's assets originate directly from the interest received on loans made, banks identify loan defaulters for significantly decreased credit risk.

### 5.Available Solutions

AS

- Using data pre-processing, data mining, and data filtering.
- Algorithms like naive bayes and k-nearest neighbors are utilized.
- Random forest, Logistic regression, Decision tree, and Naive Bayes algorithm are also used.

Explore AS, differentiate

## 2..Jobs-To-Be-Done

J&amp;P

- Support for real entrepreneurs is required.
- That the procedure need to be quicker and easier. to choose a candidate who can best serve your interests. seeks a loan applicant with a high credit rating.

## 9.Problem Root Cause

RC

As a big amount of a bank's assets directly derive from the interest gained on loans granted, the banks identify loan defaulters for much-reduced credit risk, which is the main source of this issue. A protected class is obviously treated differently when applying for loans than a non-protected class.

## 7.Behaviour

BE

Directly related:

The clients who lend the money and the banks that verify their credibility both want to complete the procedure quickly.

Indirectly associated:

The small finance sector that deals with middle class and poor class people seek to find the credibility.

<p><b>3.Triggers</b></p> <p>The lengthy and complicated loan approval process is having an adverse effect on our customers' businesses and revenue. Our customers' businesses are severely impacted as a result of the rapid increase in loan defaulters.</p>	<p><b>10.Solution</b></p> <ul style="list-style-type: none"><li>• Banks are unable to properly process loan requests due to an increased number of borrowers who default on their loans.</li><li>• The system automatically selects the reliable candidates to approve the loan, improving the speed, efficacy, and accuracy of loan approval processes.</li><li>• This helps the user (Lender) accurately identify whom to lend the loan to and also helps the banks to identify the loan defaulter for greatly reduced credit risk.</li></ul>	<p><b>8.Channels of behavior</b></p> <p>1.Offline :</p> <p>The customers needs to check the credibility of the client in an online mode.</p> <p>2.Online :</p> <p>The customer need to install the Machine Learning algorithm in their system to work efficiently.</p>
<p><b>4.Emotions : Before / After</b></p> <p>Before :</p> <p>Needs to Support genuine Entrepreneur. That the process should be easier a time saving. To find an applicant which can give best interest. Needs to find a loan applicant with good credit score.</p> <p>After:</p> <p>After implementing this project people can be able to face all these above-mentioned problems easily.</p>		