 5. AVAILABLE SOLUTIONS • Random forest, Logistic regression, Decision tree and Naive bayes algorithm are used • Using data pre-processing data mining and data filtering • Algorithms such as naïve bayes, k-nearest neighbors are used. 	7. BEHAVIOUR The small finance sector that deals with middle class and poor class people seek to find the credibility. The user can select the loan repayment time and can know the interest rates, credit score and available of loan in nearby location of the consumer.
6. CUSTOMER CONSTRAINTS Not clear in finding out his eligibility criteria for different schemas and There is an increasing rate of loan defaults. Banks identify the loan defaulters for much reduced credit risk as large portions of a bank's assets directly come from the interest earned on loans given.	9. PROBLEM ROOT CAUSE Identifying the loan defaulters is a difficult task as credit risk evaluation is a very crucial process where it lies as a major factor in the trend of banking sector that affect country's economy which is credit system handled by banks.
 1. CUSTOMER SEGMENT(S) The applicant must be above 20 years Loan lenders like banking firms or small financial firms. Bank account users. Credit/debit card holders. 	2. JOBS-TO-BE-DONE / PROBLEMS To find an applicant which can give best interest. Needs to find a loan applicant with good credit score. Accuracy of data should be precise so that it won't mislead the loan to ineligible user.
Define CS, fit into CC	Focus on J&P, tap into BE, understand RC

Focus on J&P, tap into BE, understand RC

Explore AS, differentiate

Team ID: PNT2022TMID35767

Project Design Phase-I - Solution Fit

Project Title: Smart Lender – Applicant Credibility Prediction for Loan Approval

3. TRIGGERS

TR

The slow process of loan approval is affecting the business of our customer and it also decline the revenue of our customers. Due to the sudden surge in the number of loan defaulters our customers business is highly affected like Financial situation of the user, Credit score rates, Low interest rates.

4. EMOTIONS: BEFORE / AFTER

EM

If the data is not secure it shows the insecurity of the user towards the app, it indicates emotion of fear and the vulnerability of the app towards attackers.

10. YOUR SOLUTION

SL

- There is an increasing rate of loan defaulters and banks are not able to correctly handle the loan request. To avoid this problem a machine learning algorithm is developed.
- The system automatically selects the credible candidates to approve the loan and it will improve the speed, efficacy, and accuracy of loan approval processes.
- This help the user(Lender) to accurately identify whom to lend the loan and also help the banks to identify the loan defaulter for muchreduced credit risk.

Decision tree, Random forest and logistic regression can be used to detect the credit risk evaluation. We use classification algorithms such as KNN and XGBOOST algorithms that forecast the loan defaulters and predict loan approval.

8. CHANNELS of BEHAVIOUR



8.1 ONLINE

Customers can easily predict their eligibility through a user interface.
82 OFFLINE

- Submission of documents.
- Avail loan manager
- Apply credit/Debit card and also installing the Machine Learning algorithm in their system to work efficiently.

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