

## Project Design Phase-I Proposed Solution Template

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|---------------|---|
| Date          | 30 October 2022   |
| Team ID       | PNT2022TMID27023  |
| Project Name  | Smart Lender - Applicant Credibility Prediction for Loan Approval |
| Maximum Marks | 2 Marks   |

### Proposed Solution :

These solution template relates the current situation to a desired result of this project and also describe the benefits acquire when desired result is achieved.

| S.No. | Parameter                                | Description   |
|-------|--|---|
| 1.    | Problem Statement (Problem to be solved) | <ul style="list-style-type: none"> <li>• Tracking or checking the status is difficult.</li> <li>• Prone to human errors.</li> <li>• Time consumption is high.</li> <li>• Lot of paper works.</li> <li>• Poor customer service due to lack of manpower.</li> </ul>   |
| 2.    | Idea / Solution description              | <ul style="list-style-type: none"> <li>• Tracking or checking the status becomes easy.</li> <li>• Reduce the potential for human error.</li> <li>• Time consumption of the process will be reduced.</li> <li>• Reduces the paperwork to paperless.</li> <li>• Improve the effectiveness of customer service teams.</li> <li>• Fair eligibility prediction.</li> <li>• Highly scalable and provide data driven decisions to stakeholder and higher authority.</li> </ul> <p>We will be using classification algorithms such as Decision tree, Random Forest, KNN, and xgboost to achieve higher accuracy in predicting the model. We will train and test the data with these algorithms, tune by hyperparameter tuning. From this the above ideas are implemented.</p> |
| 3.    | Novelty / Uniqueness                     | As soon as the essential data are provided, the model will predict whether to approve the loan or not - By use of transfer learning.  |
| 4.    | Social Impact / Customer Satisfaction    | One of the most important factors which affect our country's economy and financial condition is the credit system governed by the banks. As we know credit risk evaluation is very crucial, there is a variety of techniques are used for risk level calculation. In addition, credit risk is one of the main functions of the banking community.   |
| 5.    | Business Model (Revenue Model)           | This model can be developed by minimum cost at the same time it will provide the peak performance, higher accuracy and the result will be more effective than traditional techniques.   |
| 6.    | Scalability of the Solution              | Banks need not to go through the background verification process of the applicant by using this model. The model will predict the customers data and their attributes like salary , credit score,etc.   |