

## Model Development Phase Template

|                      |  |
|----------------------|--|
| <b>Date</b>          | 11 July 2024   |
| <b>Team ID</b>       | 740023   |
| <b>Project Title</b> | SmartLender - Applicant Credibility Prediction for Loan Approval |
| <b>Maximum Marks</b> | 5 Marks  |

## Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

| <b>Feature</b> | <b>Description</b>                        | <b>Selected (Yes/No)</b> | <b>Reasoning</b>  |
|----------------|---|--------------------------|---|
| Loan_ID        | Unique identifier for each loan applicant | No                       | For predicting the loan, a Loan ID is not required.                   |
| Gender         | Applicant's gender                        | Yes                      | Relevant for assessing diversity and potential bias in loan approval. |

|            |                                 |     |   |
|------------|---------------------------------|-----|---|
| Married    | Marital status of the applicant | Yes | Marital status can impact financial stability and loan eligibility. |
| Dependents | Number of dependents            | Yes | Indicates financial responsibilities and influences loan capacity.  |

|                     |                              |     |  |
|---------------------|------------------------------|-----|--|
| Self_Employed       | Self-employment status       | Yes | Self-employed individuals may have different financial profiles.         |
| Applicant Income    | Income of the applicant      | Yes | It is crucial in determining the applicant's financial capacity.         |
| Co-applicant Income | Income of the co-applicant   | Yes | Combined income provides a more accurate picture of financial stability. |
| Loan Amount         | Amount of loan applied       | Yes | Fundamental for assessing the financial magnitude of the loan.           |
| Loan Amount Term    | Term of the loan (in months) | Yes | The loan term influences monthly repayments and impacts eligibility.     |

|                |                                 |     |  |
|----------------|---------------------------------|-----|--|
| Credit_History | Credit history of the applicant | Yes | A major factor in loan approval is reflecting the applicant's creditworthiness.    |
| Loan_Status    | Loan approval outcome           | Yes | The target variable for predictive modeling – is essential for the project's goal. |

