Credit Risk Analysis

Things to look into
Balance Accuracy
(Create Balance [oversample, Undersample, Penalize overrepresented data using weights)
(Also refer from class)

1.What is our project?
3. What are the outcomes of the project?
2.Scope of the Project?
4.Who is our target audience?

Things To Do:
1.Balance data("loan_status")
2. Creating Basket
3. Null values replacement or dropping

Steps:
1. Data Collection
2.Data Collection and Exploration
2.0. Data understanding
2.1. Data Cleaning
2.2 Exploration (distributions, correlations, and patterns)
3. Feature Engineering
3.1. Variable Transformation
3.2. Feature Selection
3.3. New Feature Creation if needed
4.Model Selection
4.1. What methods we going to use? (Classification Algorithms)
4.2. Model Validation
4..3 Hyperparameter Tuning
5. Model Evaluation
5.1. What are the Performance Metrics that are useful?
(Note: Should we include Confusion Matrix)
6. Interpretability and Explainability
6.1. Feature Importance
6.2. Model Explainability
7. Implementation and Deployment
7.1. Model Deployment ??? score new loan applications in real-time???
8. Reporting and Documentation

NOTE:

5.1

1.Confusion Matrix: Analyze the confusion matrix to understand the model's true positives, true negatives, false positives, and false negatives.
2.Risk Threshold Analysis: Determine an optimal risk threshold that balances the costs of false positives and false negatives based on business requirements.