

ROADMAP

Phase 1: Requirement Analysis

- * Understand loan eligibility criteria from banks/financial institutions.
- * Identify key customer data: income, employment, credit score, existing loans, etc.
- * Define system goals: eligibility prediction, advisory suggestions, risk assessment.

Phase 2: Data Collection & Preparation

- * Collect historical loan application data.
- * Clean and preprocess data (handle missing values, normalize numeric data).
- * Encode categorical features (employment type, loan type, etc.).

Phase 3: Model Development

- * Choose ML algorithms (Logistic Regression, Decision Trees, Random Forest, or XGBoost).
- * Train models to predict loan approval probability.
- * Evaluate models using accuracy, precision, recall, F1-score.

Phase 4: Advisory System Development

- * Develop rules-based advisory engine for recommendations.
- * Example: "Increase income documentation," "Reduce existing debt," etc.
- * Integrate model predictions with advisory suggestions.

Phase 5: User Interface

- * Simple web or desktop UI for inputting applicant details.
- * Display eligibility results and advisory suggestions.

Phase 6: Testing & Deployment

- * Test with real-world scenarios for accuracy.
- * Deploy system locally or on a secure server (no external API required).

Development of AI-Powered Loan Eligibility Advisory System

