ALEP: Software Requirements Specification

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1 Introduction

1.1 Purpose

The purpose of this document is to outline the requirements for the Automated Loan Eligibility Prediction (ALEP) software. It serves as a guide for the development team to understand the goals, functionality, and constraints of the project.

1.2 Intended Audience

The software is intended for financial institutions, including banks and credit unions, to automate the process of evaluating loan eligibility for applicants. End-users include loan officers, financial analysts, and other staff involved in the loan approval process.

1.3 Intended Use

The ALEP software aims to streamline the loan approval process by analyzing applicant data filled out in an application form and determining their eligibility for various loan products. It helps financial institutions make faster and more accurate lending decisions, ultimately improving customer satisfaction and operational efficiency.

1.4 Scope

The scope of the ALEP software includes analyzing applicant data from the loan application form, such as income, credit history, and employment status, to assess their eligibility for loans. The main goals are to automate the loan approval process, reduce manual errors, and enhance the overall efficiency of the lending process.

1.5 Definitions and Acronyms

- ALEP: Automated Loan Eligibility Prediction
- UX: User Experiance
- UI: User Interface

2 Overall Description

2.1 User Needs

The ALEP software must meet the following user needs:

- Provide accurate loan eligibility predictions based on applicant data from the loan application form.

- Streamline the loan approval process and reduce manual intervention.
- Ensure data security and compliance with regulatory standards.

2.2 Assumptions and Dependencies

2.2.1 Assumptions

- The accuracy of loan eligibility predictions is dependent on the quality and completeness of applicant data provided in the loan application form.
- The software will rely on third-party data sources for credit scoring and verification.

2.2.2 Dependencies

- Integration with banking systems for accessing applicant data.
- Compliance with regulatory requirements, such as financial regulations.

3 System Features and Requirements

3.1 Functional Requirements

- FR001: Collect applicant data from the loan application form, including income, credit history, and employment status.
- FR002: Analyze applicant data to determine loan eligibility.
- FR003: Provide real-time loan eligibility predictions to loan officers.
- FR004: Generate reports on loan approval statistics and trends.

3.2 External Interface Requirements

- The software should have an intuitive user interface for data entry and viewing loan eligibility results.

3.3 System Features

- Loan application form interface for applicants to fill out with required information.
- Loan eligibility prediction engine for analyzing applicant data and determining eligibility.
- Reporting dashboard for generating loan approval statistics and trends.

3.4 Nonfunctional Requirements

- NFR001: Performance: The software should provide loan eligibility predictions within seconds.
- NFR002: Security: Applicant data should be encrypted and stored securely to protect privacy.
- NFR003: Scalability: The software should be scalable to handle a large volume of loan applications.
- NFR004: Compliance: The software should comply with regulatory standards, such as financial regulations.