

Software Requirement Specifications

AI-Driven Student Performance Prediction System



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1. Introduction

1.1 Purpose

This document defines the functional and non-functional requirements of the AI-Based Student Performance Prediction System.

1.2 Scope

The system predicts student performance (Good/Average/Poor) using attendance, grades, assignments, and study habits.

1.3 Intended Users

Teachers, Administrators, Students, Institutions

2. Overall Description

The system integrates machine learning models with a web-based dashboard for predictions and analytics.

3. System Requirements

Functional and non-functional requirements for prediction, visualization, and storage.

4. Methodology

Data collection, preprocessing, training, evaluation, and deployment.

5. Tools & Technologies

Python, Scikit-learn, Streamlit/Flask, CSV/SQLite.

6. Expected Outcomes

Early detection of at-risk students and improved academic decisions.