BUSINESS REQUIREMENTS DOCUMENT (BRD)

Project Title: Student Performance Analyzer

1. Executive Summary

This Business Requirements Document (BRD) describes the requirements for the Student Performance Analyzer system.

The objective of this project is to analyze student academic performance and attendance data to identify performance levels, attendance issues, and students who are at risk.

This document serves as a foundation for system design and development.

2. Project Description

Educational institutions handle large volumes of student data such as grades, subjects, and attendance. Currently, analyzing this data manually is time-consuming and prone to errors.

The Student Performance Analyzer aims to automate the analysis process by categorizing student performance, identifying at-risk students, and generating subject-wise averages to support academic decision-making.

3. Project Scope

3.1 In Scope

Storage of student academic and attendance data

Calculation of performance status (High, Average, Low)

Identification of at-risk students

Attendance issue flagging

Subject-wise average calculation

Data analysis using Excel or structured datasets

3.2 Out of Scope

Online examination system

Student enrollment and admission process

Fee management system

Mobile application development

External system integrations

4. Business Objectives

Improve monitoring of student academic performance

Identify students requiring academic support early

Reduce manual effort in performance analysis

Provide accurate and structured academic insights

Support teachers and management in decision-making

5. Stakeholders

School/College Management

Teachers and Faculty Members

Academic Coordinators

System Administrator

6. Functional Requirements

6.1 Student Data Management

The system shall store unique Student ID for each student

The system shall record student name and subject details

The system shall store student grades

The system shall capture attendance percentage

6.2 Performance Analysis

The system shall calculate performance status based on grades

The system shall identify students as "At Risk" based on low performance or attendance

The system shall generate attendance flags (OK / Attendance Issue)

The system shall calculate subject-wise average marks

6.3 Reporting and Analysis

The system shall display analyzed data in tabular format

The system shall allow sorting and filtering of student data

The system shall support basic performance summaries

7. Non-Functional Requirements

The system shall process at least 100 student records efficiently

The system shall provide accurate and consistent results

The system shall be easy to use for non-technical users

The system shall ensure data confidentiality

The system shall support future scalability

8. Assumptions and Constraints

Assumptions

Student data will be available in structured format (Excel/CSV)

Performance evaluation rules are predefined

Attendance percentage is mandatory for analysis

Constraints

System is intended for internal academic use only

No real-time data integration

Limited to academic performance analysis

9. Risks

Incorrect data entry may affect analysis accuracy

Incomplete attendance data may lead to incorrect risk identification

Changes in evaluation rules may require system updates

10. Success Criteria

Accurate performance classification of students

Clear identification of at-risk students

Reduction in manual performance analysis effort

Improved academic insights for faculty and management