





**1. Introduction**

This document describes the requirements for a website designed to reduce dropout rates, particularly in rural and economically weaker areas. The website will collect data such as age, caste, gender and regions to identify the risk of leaving school. It will also visualize the trends and graphs of dropout rate. The goal is to create a secure, scalable, and user-friendly solution to help improve education access and quality for all.

* 1. **Purpose**

This SRS defines the requirements for a website aimed at lowering dropout rates. The website will collect data such as age, caste, gender and regions to identify students likely to drop out and predict trends in dropout rates. It will support governments and non-governmental organizations in planning targeted programs to prevent dropouts and monitor their success. The website will contribute to achieving educational goals by providing actionable insights based on reliable data analysis.

**1.2. Scope**

The website will:

* Collect data such as age, gender and regions.
* Analyze this data to identify risk of dropout.
* Provide visual reports to highlight trends and patterns in dropout rates.
* Help monitor and assess programs aimed at reducing dropouts.
* The project will focus on building a functional website with all necessary features, ensuring data integration, security, and usability.

**1.3. Product Overview**

**1.3.1. Product Perspective**

The website will serve as a centralized system for analyzing dropout-related data. It will integrate such as age, gender and regions to predict risk of dropout. By presenting this data in easy-to-understand formats like charts and graphs, the website will help users analyses the dropouts rate. The website is designed to work on any device with internet access, making it widely accessible. The website will also prioritize data protection and secure access for all users.

**1.3.2. Product Features**

1. Data Collection and Integration: Collect data from multiple sources, and combine it for analysis.
2. Dropout Prediction: Use collected data to predict risk of dropping out.
3. Trend Reports: Generate visual reports, such as charts and graphs, to show dropout trends.
4. Real-Time Updates: Provide up-to-date information through the website.

**1.3.3. User Characteristics**

* Government Officials: Use reports to develop and improve education policies.
* NGO Workers: Track and evaluate programs aimed at reducing dropouts.

**1.3.4. Limitations**

1. Data Quality: The website depends on accurate and timely data for reliable predictions,
2. Limited Coverage: Initially, the website may only cover certain areas.
3. Internet Access: Poor connectivity in some regions may affect usability.

**1.4 Definitions**

1. Data Analysis & Prediction: Collects and analyse data to predict student dropout risks.
2. User Authentication: Secure login with role-based access control.
3. Scalability & Security: Handles growing data loads and ensures data protection**.**
4. Compliance & Accessibility: Follows data protection laws and accessibility guidelines**.**

**2. References**

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**3.Requirements**

**3.1 Functions**

1. Data Integration: Combine data and income for comprehensive analysis.
2. Predictive Analytics: Use data to identify risk of dropping out.
3. Progress Monitoring: Assess the effectiveness of measures to reduce dropout rates.
4. Reports and Charts: Generate and display visual summaries of dropout patterns and trends.

**3.2 Apportioning of Requirements**

1. Phase 1: Basic website features such as data collection, dropout prediction.
2. Phase 2: Advanced features like detailed trend reports, visual charts, and maps.
3. Phase 3: Scaling up to handle more users and larger datasets, and adding additional data sources.

**3.3 External Interfaces**

1. Website Interface: A simple, user-friendly website for entering data, viewing reports, and tracking progress.
2. Login System: Secure user authentication with role-based access controls.

**3.4 Usability Requirements**

1. The website should be simple to use, even for people with minimal technical skills.
2. It should support multiple factors for accessibility across regions.
3. The design should ensure compatibility with all devices that have internet access.
4. Users should have access to guides and tutorials for smooth navigation.

**3.5 Logical Database Requirements**

1. Data Integrity: Ensure all stored data is accurate and reliable.
2. Data Security: Protect sensitive information through encryption and secure access controls.
3. Minimal Redundancy: Avoid duplicate data entries to optimize storage.
4. Efficient Retrieval: Enable quick access to data, even with large datasets.

**3.6 Design Constraints**

1. Database Compatibility:

The website must easily integrate with government databases for seamless data synchronization.

2. Budget Limitations:

The website should be cost-effective during development, scaling, and maintenance.

3. Data Protection Compliance:

The website must comply with data protection laws (e.g., GDPR) to safeguard student privacy.

**3.7 Software System Attributes**

1. Reliability:

The platform must perform consistently without crashes.

1. Scalability:

The website must handle increasing data and user load over time.

1. Security:

Strong security measures to prevent unauthorized access and data breaches.

1. Maintainability:

The website must be easy to update and modify as needed.

**3.8 Supporting Information**

1. Documentation: Instructions for installing, using, the website.
2. Training Materials: Tutorials and guides to help users effectively navigate the platform.
3. Maintenance Plan: Ongoing updates and bug fixes to keep the system reliable and secure

**4. Verification**

1. Unit Testing:

Verify individual components for correct functionality.

1. Integration Testing:

Ensure proper communication components (APIs, databases, front-end).

1. User Acceptance Testing (UAT):

Validate that the website meets user needs and expectations.

1. **Appendices**

**5.1 Assumptions and Dependencies**

1. Reliable Data: Data will be provided by government agencies and other organizations.
2. User Participation: Organizations like NGOs and officials will actively use the website.
3. Compliance: The website will follow all relevant data protection and privacy regulations.
   1. **Acronyms and Abbreviations**
4. **SRS** – Software Requirements Specification
5. **NGO**– Non-Governmental Organization
6. **GDPR** – General Data Protection Regulation
7. **WCAG** – Web Content Accessibility Guidelines