

Software Requirement Specification  
for  
Soul Of Bangladesh  
(v1.0)

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# Revision History

Revision	Date	Description of Change	Author
1.0	10 Sept 2025	Initial Draft	Ameer, Labo
1.1	12 Sept 2025	Added Chapter 2 content	Sunehra Tabar
1.2	14 Sept 2025	Updated Chapter 3 functional requirements	Rabeya Islam
1.3	16 Sept 2025	Final review	Nasrat,Aurnab,Rima,Su

# Chapter 1

## Introduction

### 1.1 Purpose

The purpose of the **Soul of Bangladesh** project is to provide a dynamic digital platform that showcases and preserves the rich cultural heritage, traditions, and identity of Bangladesh. It acts as a knowledge hub where users can explore the country's history, education, heritage sites, food, rivers, bridges, sports, seasons, and festivals. By organizing information into interactive categories, the system highlights the values, lifestyles, and cultural practices that define the Bangladeshi spirit. The platform ensures that both local and global audiences gain a holistic understanding of the nation's roots while encouraging cultural pride and awareness.

### 1.2 Intended Audience

This document is intended for multiple stakeholders involved in the design, development, and usage of the **Soul of Bangladesh** platform. The key audiences are:

1. **System Administrators:** Manage the platform, content updates, and ensure accessibility.
2. **Developers:** Implement interactive features, responsive design, and ensure smooth user experience.
3. **Project Managers:** Monitor progress, allocate resources, and ensure cultural accuracy and project goals are achieved.
4. **Testers/QA Team:** Verify usability, navigation flow, and validate that cultural content is displayed correctly.
5. **General Users (Visitors):** Explore Bangladesh's culture, history, and traditions through interactive features.
6. **Researchers/Educators:** Use the platform as a digital resource for academic or cultural studies.
7. **Documentation Writers/Trainers:** Create guides and tutorials for managing and expanding the platform.

## **1.3 Intended Use**

The **Soul of Bangladesh** project is intended to serve as an interactive digital representation of Bangladesh’s cultural essence. It will be used as an educational, cultural, and tourism-friendly resource. The intended uses are outlined below:

### **1.3.1 System Administrators**

1. Manage platform content, categories, and multimedia resources.
2. Ensure the security and integrity of cultural data.
3. Maintain smooth performance and accessibility across devices.

### **1.3.2 Developers**

1. Build an interactive, multilingual, and mobile-friendly web platform.
2. Implement features such as galleries, storytelling sections, and dynamic content updates.
3. Integrate multimedia (images, audio, video) for an immersive experience.

### **1.3.3 Project Managers**

1. Plan development stages, allocate resources, and oversee cultural validation.
2. Ensure deadlines, milestones, and quality standards are met.
3. Collaborate with cultural experts, educators, and stakeholders.

### **1.3.4 General Users / Visitors**

1. Explore Bangladeshi culture, history, and traditions in an engaging format.
2. Access authentic knowledge about food, festivals, sports, and heritage places.
3. Share feedback and contribute to preserving cultural heritage.

### **1.3.5 Testers/Quality Assurance (QA) Team**

1. Verify that all cultural content is displayed accurately and interactively.
2. Conduct usability testing to ensure smooth navigation.
3. Ensure multimedia elements work properly across browsers and devices.

### **1.3.6 Researchers/Educators**

1. Use the platform as a source of authentic cultural data.
2. Integrate content into lessons, projects, and publications.
3. Collaborate on expanding cultural archives digitally.

### 1.3.7 Documentation Writers/Trainers

1. Prepare cultural content management guides.
2. Provide instructions for updating categories, media, and translations.
3. Support onboarding for NGOs, schools, and cultural organizations that wish to use the platform.

## 1.4 Product Scope

### 1.4.1 Purpose

The **Soul of Bangladesh** system aims to digitally preserve and promote the nation's culture. It provides a structured platform that organizes diverse aspects of Bangladeshi life, ensuring they remain accessible to future generations and globally visible.

### 1.4.2 Benefits and Objectives

The platform offers the following benefits and objectives:

1. **Cultural Preservation:** Digitally archive traditional practices, stories, and heritage.
2. **Global Promotion:** Present Bangladeshi culture to international audiences.
3. **Educational Resource:** Act as a tool for students, teachers, and researchers.
4. **Tourism Support:** Highlight heritage sites, festivals, and foods to attract tourists.
5. **Interactive Engagement:** Provide an immersive experience through multimedia content.

### 1.4.3 Alignment with National & Global Goals

The project aligns with national strategies for cultural preservation and also contributes to global Sustainable Development Goals (SDGs), such as:

1. SDG 4: Quality education by providing authentic cultural learning resources.
2. SDG 8: Promote sustainable tourism that highlights culture and heritage.
3. SDG 11: Strengthen efforts to protect cultural and natural heritage.

#### **1.4.4 Relation to National Strategies**

The platform aligns with cultural and tourism strategies by:

1. Encouraging digital heritage preservation.
2. Strengthening global cultural awareness of Bangladesh.
3. Providing an expandable platform adaptable for future cultural initiatives.
4. Supporting education, research, and tourism with authentic cultural data.

### **1.5 Risk Definitions**

#### **1.5.1 Data Security Risk**

The system handles multimedia resources and user-submitted content. Unauthorized access or misuse could affect credibility. To mitigate, access control, moderation, and secure hosting will be ensured.

#### **1.5.2 System Downtime**

Website crashes or server failures could disrupt access for users. Backup servers, monitoring tools, and scheduled maintenance will reduce downtime risks.

#### **1.5.3 User Adoption Risk**

If the platform is not user-friendly or engaging, audiences may lose interest. To mitigate this, intuitive UI design, interactive content, and regular updates will be provided.

#### **1.5.4 Data Accuracy Risk**

Incorrect cultural information could harm authenticity. Content validation by cultural experts and NGOs will be implemented.

#### **1.5.5 Regulatory Compliance Risk**

The system must comply with copyright, data-sharing policies, and cultural ethics. Proper licensing, permissions, and ethical data use will be ensured.



# Chapter 2

## Overall Description

### 2.1 User Classes and Characteristics

The **Soul of Bangladesh** platform is designed for multiple user classes, each with specific roles, responsibilities, and access levels. All interactions are dynamic, using MySQL to store, retrieve, and update cultural, historical, and political data in real time.

#### 2.1.1 Administrators

1. Oversee all platform operations and maintain data integrity.
2. Manage user accounts, assign roles, and control access privileges.
3. Monitor content updates for cultural, historical, political, war, and Prime Minister modules.
4. Track engagement metrics and generate reports on user activity and content statistics.
5. Technical proficiency: medium to high; Access level: full system control.

#### 2.1.2 Content Contributors / Cultural and Political Experts

1. Add, update, and verify cultural, historical, political, and war-related content.
2. Maintain accurate records for political events, war history, and Prime Ministers' profiles.
3. Moderate user contributions to the voting panel and feedback sections.
4. Technical proficiency: basic to medium; Access level: limited to assigned sections.

### **2.1.3 General Users / Visitors**

1. Explore cultural, historical, and political content dynamically.
2. View interactive galleries, war lists, PM profiles, and voting panels with real-time updates.
3. Submit feedback or participate in voting polls; contributions stored in MySQL for admin review.
4. Technical proficiency: basic; Access level: read-only with limited interaction (voting).

### **2.1.4 Researchers / Educators**

1. Access curated cultural, historical, and political content for study or academic research.
2. Generate reports or extract data on political history, wars, and Prime Ministers.
3. Technical proficiency: medium; Access level: read-only.

### **2.1.5 Voting Panel Participants**

1. Registered users can cast votes for PMs or political topics as allowed by the system.
2. Voting is secured and tracked without revealing personal information.
3. Access limited to voting functionality; cannot modify other content.
4. Technical proficiency: basic; Access level: voting only.

## **2.2 User Needs**

### **2.2.1 Administrators**

1. Manage all content sections (cultural, historical, political, war, PM profiles).
2. Monitor voting panel activity and generate statistical reports.
3. Ensure data integrity and security across all modules.
4. Track user engagement and platform analytics.

### **2.2.2 Content Contributors / Cultural and Political Experts**

1. Create and verify political history content, war records, and PM profiles.
2. Moderate voting panel results and ensure fair representation.
3. Update content dynamically while maintaining historical and cultural accuracy.
4. Respond to user-submitted feedback and suggestions.

### **2.2.3 General Users / Visitors**

1. Browse political history, war lists, PM profiles, and cultural content.
2. Participate in voting panels to express opinions.
3. Submit feedback or content suggestions for review by experts.
4. Access interactive galleries and multimedia content.

### **2.2.4 Researchers / Educators**

1. Access historical and political data for research, teaching, or reporting.
2. Use analytical tools to summarize war records, political timelines, or PM achievements.
3. Generate reports or download datasets as permitted.

### **2.2.5 Voting Panel Participants**

1. Cast votes securely and track outcomes where allowed.
2. Receive notifications on new polls or voting opportunities.
3. Access historical voting statistics if permitted by the administrator.

## **2.3 Operating Environment**

### **2.3.1 Hardware Platform**

1. Desktop Computers: Intel Core i5, 8GB RAM, 256GB SSD or higher.
2. Laptops: Intel Core i3, 4GB RAM, 128GB SSD or higher.
3. Mobile Devices: Smartphones or tablets for browsing and voting panel access.

### **2.3.2 Operating System**

1. Windows 10 / 11 (64-bit)
2. macOS Catalina (10.15) and above
3. Linux Ubuntu 20.04 LTS and above, Fedora 33 and above
4. Android / iOS for mobile browsing and voting access

### **2.3.3 Software Components**

1. XAMPP (Apache + PHP + MySQL) for local development.
2. Modern web browsers: Chrome, Firefox, Edge, Safari.
3. Development Tools: VS Code, Sublime, PHPStorm, or similar.

### **2.3.4 Database Compatibility**

1. MySQL 8.0: stores cultural, historical, political content, user contributions, feedback, and voting results.

### **2.3.5 Mobile Access**

1. Mobile devices cannot run XAMPP directly.
2. Local testing on mobile via PC IP (e.g., `http://192.168.1.100/sob`).
3. Full mobile access requires deployment on a live server.

### **2.3.6 Interoperability**

1. Web-based system accessible from any modern browser on supported PCs, laptops, and mobile devices.

## **2.4 Constraints**

### **2.4.1 Content Accuracy**

All cultural, historical, and political data must be verified by experts to ensure authenticity.

### **2.4.2 Voting Integrity**

Each user can vote only once; results must be secured against tampering.

### **2.4.3 Resource Constraints**

Multimedia-heavy content (war images, PM photos) optimized for performance on limited devices.

#### **2.4.4 Connectivity**

Voting panel and interactive sections require stable internet for real-time updates.

#### **2.4.5 Scalability**

Platform supports expansion to include more categories, multimedia, user-contributed content, and voting topics.

#### **2.4.6 Technology Stack**

Implementation limited to PHP, HTML, CSS, JavaScript, and MySQL, which may limit certain advanced interactivity.

### **2.5 Assumptions and Dependencies**

#### **2.5.1 Access to Devices**

Contributors, administrators, and voting participants are assumed to have access to computers or mobile devices.

#### **2.5.2 User Competency**

Users are assumed to have basic digital literacy; training provided as needed.

#### **2.5.3 External Data Sources**

May integrate with external archives, tourism, or political databases if accessible.

#### **2.5.4 Regulatory Stability**

Policies regarding digital content, copyright, and political data sharing assumed stable.

#### **2.5.5 Timely Content Updates**

Contributors expected to provide accurate and timely updates for relevance.

#### **2.5.6 Infrastructure Availability**

Adequate local server resources and periodic internet connectivity assumed for synchronization, notifications, and reporting.

# Chapter 3

## Requirements

### 3.1 Functional Requirements

#### 3.1.1 User Access and System Management

##### User Authentication

**User Story 1:** As a new user, I want to register with my email and name so that I can securely access the system.

**Success:**

- a. Valid email format and non-empty name are checked.
- b. Account created in database.
- c. Verification email with secure link sent and confirmation message shown.

**Failure:**

- a. Empty email or name blocks registration.
- b. Duplicate email rejected.
- c. Expired or malformed verification link shows error message.

---

**User Story 2:** As a user, I want to log in with my email and password so that I can access my dashboard securely.

**Success:**

- a. Credentials validated with database.
- b. User redirected to dashboard.
- c. Session token created for secure session.

**Failure:**

- a. Wrong credentials rejected.
- b. Multiple failed attempts trigger temporary logout.

---

**User Story 3:** As a user, I want to stay logged in so that I don't need to re-enter credentials each time.

**Success:**

- a. Persistent session established with cookies.
- b. Auto-login on future visits enabled.

**Failure:**

- a. Expired session requires re-login.
  - b. Conflicting devices trigger login alert.
- 

## **Password Reset**

**User Story 4:** As a user, I want to reset my password via email so that I can regain access.

**Success:**

- a. System validates email.
- b. Reset link sent.
- c. Password updated after link followed.

**Failure:**

- a. Unregistered email rejected.
  - b. Expired link blocked.
- 

**User Story 5:** As a user, I want to reset my password with security questions so that I can recover my account without email.

**Success:**

- a. Security questions verified correctly.
- b. New password set.
- c. Confirmation sent.

**Failure:**

- a. Wrong answers rejected.
  - b. Alternative recovery suggested.
-

## Magazine Publication

**User Story 6:** As a user, I want to read daily magazine/journal content so that I can stay informed.

**Success:**

- a. Articles displayed with media.
- b. Comments and feedback enabled.
- c. Notifications for new publications.

**Failure:**

- a. Missing content shows error.
- b. Broken media replaced with placeholders.

—

**User Story 7:** As an admin, I want to publish/edit/delete journal articles so that users always see updated content.

**Success:**

- a. Articles created or edited with validation.
- b. Changes updated for all users.

**Failure:**

- a. Unauthorized edits blocked.
- b. Invalid input rejected.

—

## Sponsorship Management

**User Story 8:** As a user, I want to see sponsored content beside articles so that I know about campaigns.

**Success:**

- a. Sponsored info displayed clearly.
- b. Campaign links functional.

**Failure:**

- a. Missing sponsorship hidden.
- b. Broken links show fallback message.

—

**User Story 9:** As an admin, I want to manage sponsored products so that campaigns are promoted effectively.

**Success:**



- a. Sponsored products displayed with media.
- b. Linked to related articles.

**Failure:**

- a. Invalid or missing data rejected.
- 

### 3.1.2 History, Politics, Seasons, Sundarbans

#### History

**User Story 1:** As a user, I want to view historical events chronologically so that I can understand timelines.

**Success:**

- a. Events shown with titles, dates, and descriptions.

**Failure:**

- a. Missing data shows error.
- 

**User Story 2:** As an admin, I want to add/edit/delete history so that content is accurate.

**Success:**

- a. Changes updated for all users.

**Failure:**

- a. Unauthorized edits blocked.
- 

#### Politics (Prime Ministers)

**User Story 3:** As a user, I want to view Prime Ministers' profiles so that I can learn their achievements and failures.

**Success:**

- a. Detailed profiles displayed with policies and media.

**Failure:**

- a. Missing data results in incomplete profile.
- 

**User Story 4:** As a user, I want to vote for PMs so that I can share opinions.

**Success:**

- a. Vote submitted successfully.
- b. Confirmation displayed.

**Failure:**

- a. Duplicate vote blocked.

—

### **Seasons & Sundarbans**

**User Story 5:** As a user, I want to explore seasonal events and festivals so that I can plan visits.

**Success:**

- a. Events shown with dates.
- b. Filters available for searching.

**Failure:**

- a. Invalid filter shows empty results.

—

**User Story 6:** As an admin, I want to manage Sundarbans info so that users see correct environmental data.

**Success:**

- a. Admin edits reflected with maps and media.

**Failure:**

- a. Unauthorized edits blocked.
- b. Invalid input rejected.

—

## **3.1.3 Education**

**User Story 1:** As a user, I want to explore schools, colleges, and universities so that I can find institutions easily.

**Success:**

- a. Institutions displayed with stats, programs, and images.

**Failure:**

- a. Missing fields show error.

—

**User Story 2:** As an admin, I want to update education info so that content is current.

**Success:**

- a. Changes reflected instantly.

**Failure:**

- a. Invalid inputs rejected.

—

### 3.1.4 Culture

**User Story 1:** As a user, I want to explore cultural programs (e.g., Putul Nach, Rabindro Joyonti, Pohela Boishakh) so that I can learn about and participate in them.

**Success:**

- a. List of cultural programs displayed with dates.
- b. Media (photos/videos) included for each program.
- c. Notifications or reminders available for upcoming programs.

**Failure:**

- a. Missing program data prevents display.
  - b. Broken media replaced with placeholders.
  - c. Invalid filters return empty list.
- 

**User Story 2:** As a user, I want to explore cultural festivals so that I can understand traditions.

**Success:**

- a. Festivals displayed with dates and media.

**Failure:**

- a. Missing festival data shows error.
- 

### 3.1.5 Rivers

**User Story 1:** As a user, I want to explore river info so that I can understand their role in Bangladesh.

**Success:**

- a. Rivers displayed with maps, data, and media.

**Failure:**

- a. Missing data shows error.
- 

**User Story 2:** As an admin, I want to manage river info so that users see accurate updates.

**Success:**

- a. Changes reflected instantly.

**Failure:**

- a. Unauthorized edits blocked.
-

### 3.1.6 Festivals

**User Story 1:** As a user, I want to view upcoming festivals so that I can participate and celebrate.

**Success:**

- a. Festival names, dates, and locations displayed.
- b. Multimedia (photos, videos) included.
- c. Notifications or reminders available.

**Failure:**

- a. Missing dates or locations prevent display.
- b. Broken media replaced with placeholder.

---

**User Story 2:** As an admin, I want to manage festival content so that users always have updated info.

**Success:**

- a. Admin can add, edit, or delete festivals.
- b. Data validated before saving.
- c. Changes reflected immediately.

**Failure:**

- a. Unauthorized edits blocked.
- b. Invalid input rejected.

---

**User Story 3:** As a user, I want to filter festivals by type (religious, national, cultural) so that I can find relevant events.

**Success:**

- a. Filters return accurate results.
- b. Multiple filters can be combined.

**Failure:**

- a. Invalid filter input returns empty list.

### 3.1.7 Heritage and Tourist Spots

**User Story 1:** As a user, I want to explore heritage sites so that I can learn about cultural landmarks interactively.

**Success:**

- a. Sites displayed with history, cultural background, and significance.
- b. Media (images, videos, 3D tours) linked.
- c. Interactive map shows locations.

**Failure:**

- a. Missing historical details show error message.
- b. Broken links trigger fallback content.

---

**User Story 2:** As a tourist, I want to explore tourist spots connected with heritage sites so that I can plan visits.

**Success:**

- a. Tourist info displayed (entry fees, hours, nearby hotels).
- b. History background shown.
- c. Option to bookmark and plan itineraries.

**Failure:**

- a. Missing tourist info shows incomplete display.
- b. Invalid input prompts alternative suggestions.

---

**User Story 3:** As an admin, I want to add, edit, or delete heritage and tourist spot details so that information stays correct.

**Success:**

- a. Admin updates reflected instantly.
- b. Validation ensures complete entries.

**Failure:**

- a. Unauthorized edits blocked.
  - b. Invalid input rejected.
-

### 3.1.8 Sports

**User Story 1:** As a user, I want to view traditional and modern sports so that I can learn rules and history.

**Success:**

- a. Sports info displayed with history, rules, and media.
- b. Searchable by type, popularity, or region.

**Failure:**

- a. Missing sports info blocks display.
- 

**User Story 2:** As a user, I want to learn about notable players so that I can understand their achievements.

**Success:**

- a. Player profile displayed with biography, achievements, and media.

**Failure:**

- a. Missing data shows partial profile.
- 

### 3.1.9 Transport

**User Story 1:** As a user, I want to learn about transport systems so that I can plan travel.

**Success:**

- a. Transport info displayed with maps, routes, and media.

**Failure:**

- a. Missing route or schedule data shows error.
- 

### 3.1.10 Hills

**User Story 1:** As a user, I want to explore hill areas so that I can plan trips.

**Success:**

- a. Hills displayed with maps.
- b. Tourism info available.
- c. Images and descriptions shown.

**Failure:**

- a. Missing data blocks display.
  - b. Invalid media replaced with placeholders.
-

## 3.2 Non-Functional Requirements

### Performance:

- a. Pages load within 3s on 4G.
- b. Multimedia streams without lag.
- c. Voting and analytics update within 2s.

### Scalability:

- a. System supports 10,000+ concurrent users.
- b. Database queries optimized.
- c. Horizontal scaling enabled.

### Security:

- a. Passwords hashed securely.
- b. HTTPS enforced on all requests.
- c. SQLi, XSS, CSRF protections applied.

### Usability:

- a. Interface responsive across devices.
- b. Multilingual support included.
- c. Accessible design for all users.

### Maintainability:

- a. Code modular and documented.
- b. Logs maintained for major actions.
- c. Normalized database schema.

### Availability/Reliability:

- a. 99% uptime guaranteed.
- b. Redundant servers active.
- c. Offline caching supported.

### Extensibility:

- a. APIs support mobile/third-party.
- b. New modules added without breaking old ones.
- c. Supports future media/content formats.

# Appendix A: Glossary

**Soul of Bangladesh** The proposed system showcasing Bangladesh’s history, culture, heritage, festivals, sports, food, natural geography, education, and sponsored content.

**Admin** A user with full system access, responsible for managing historical events, PM profiles, heritage info, festivals, sports, educational institutions, and sponsorship content.

**General User** A visitor or registered user who can browse content, vote for PMs, view events, festivals, foods, sports, and educational information, and interact with journal/magazine articles.

**Historical Events** Module containing significant events from Bangladesh’s history, displayed chronologically with descriptions and media.

**Wars and Conflicts** Section documenting wars, battles, and conflicts, with timelines, media, and regional/year filters.

**Prime Ministers** Section showcasing profiles, achievements, and failures of Bangladesh’s prime ministers, with voting functionality for users.

**Heritage Sites** Module presenting cultural landmarks, monuments, and historic places with images, descriptions, and location maps.

**Natural Geography** Information on rivers, hills, Sundarbans, and other geographical features of Bangladesh.

**Seasons and Festivals** Module highlighting seasonal events and festivals, including dates, locations, and notifications.

**Food Recipes** Section containing traditional Bangladeshi dishes with ingredients, preparation steps, and media (images/videos).

**Journal/Magazine** Module providing articles, news, and sponsored content with commenting and interactive features.

**Sports** Section detailing traditional and modern sports, rules, history, and notable players.

**Transport Infrastructure** Module presenting information on road, rail, and water transport networks, including maps and images.

**Education** Section displaying schools, colleges, and universities with enrollment statistics, programs, and contact info.



**Marketplace / Sponsored Products** Module showing RootBD-sponsored products linked to campaigns and journal/magazine articles.

**Voting System** Feature allowing users to vote for Prime Ministers or other polls, with analytics and real-time results.

**Filter and Search** Functionality allowing users to filter content by year, region, type, or category.

**Media Content** Images, videos, or interactive maps used throughout the system for enhancing user experience.

**Role-Based Access Control (RBAC)** Security mechanism ensuring system access according to user roles (Admin, User, etc.).

**Responsive Web Interface** Web pages that adapt layout and elements according to device screen size, including desktops, tablets, and smartphones.

**HTTPS** Secure communication protocol used to encrypt data between client and server.

**Audit Log** System record of all admin and user actions, including content updates, votes, and major interactions.

**Backup & Restore** Feature to automatically save system data and recover it in case of data loss.

**Sensitive Data** Confidential information, such as historical documents, user votes, personal profiles, and journal comments.