Software Requirement Specification for Fundraising Web Application

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Prepared by:

Abu Sayeid Sawon

2020831011

Software Engineering

Shahjalal University of Science and Technology

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1. Introduction

1.1 Purpose:

The purpose of this document is to provide a detailed description of the Fundraising Management Web Application. The objective is to give a comprehensive overview of the Fundraising Management Web Application. It provides an overall view of the requirements and specifications needed to construct the application by outlining its features, capabilities, and limitations. Also, it outlines the requirements and specifications for the development of the application, ensuring a clear understanding of its features, functionality, and constraints.

1.2 Document Convention:

This document follows the general document convention. All text and symbols refer to the common usage of the language. No special symbols were used while preparing the document.

1.3 Intended Audience and Reading Suggestion:

This document will help the project manager, developers, and customer to understand the purpose, scope, and functionality of the project. Readers should follow the table of content to find the intended topic. Functional requirements will help users to understand the scope and purpose more clearly.

1.4 Product Scope:

An all-in-one platform of event hosting, charity collection, and fundraising for all progressive nonprofits. Online donation system ensures worldwide donation poll and event activity. The project is designed for general purposes involving mass people. Web-based development ensures compatibility on different devices.

1.5 References:

The document follows IEEE format which is prepared by using a template from http://ieeeexplore.ieee.org

2. Overview:

2.1 Product Perspective:

The top 5 reasons for making a fundraising web platform are-

- To help nonprofits facilitate the donor cultivation process
- To allow nonprofits to expand their donor poll
- To allow donation collections from anywhere, at anytime
- To help to track donor, fundraising, and accounting data easily
- To facilitate easy web hosting and event management system

2.2 Product Functions:

- Event hosting and management
- Communication and engagement
- Donor relationship management
- Volunteer Management
- Donation Tracking and Reporting
- Security and Integration

2.3 User Classes and Characteristics:

After analyzing key features, 4 roles can clearly be identified for Fundraising Requirement Web App

- Event hosts
- Donors
- Web administrators
- Volunteers

2.4 Operating Environment:

As a web application, the project should run on any operating system as long as the browser is compatible. The environment must

ensure interoperability while fostering innovation. In particular, it must enable-

- Customized contents
- Extensible functionality
- Advanced user interface

2.5 Design and Implementation Constraints:

- **Technical constraints**
  - Device and operating system limitations
  - Accessibility constraints
  - Performance constraints
  - Integrations and APIs
  - Tech stack constraints
- **Financial constraints**
  - Limitation of the scope of each discipline
  - Limitation in the number of iterations and test rounds
  - Limitation in the usage of tools
  - Limitation of size and skill of the design team
- **Legal and regulatory constraints**
  - Privacy law
  - Accessibility law
  - Intellectual property law
  - Industry-specific regulations
- **Organizational constraints**
  - Time constraints
  - Brand guidelines
  - Marketing and business goals
  - Design system constraints
  - Organizational silos
  - Designs' value

2.6 User Documentation:

For end-users, as well as developers, designers, testers, and other stakeholders involved in the development process, these documentations should be associated-

- **User manual:**
  These documents will offer step-by-step guidance on using the application's features effectively
- **Tutorials/ Guides:**
  Tutorials provide practical examples of specific tasks within an application, while guides focus on general topics like getting started or the best practices for using a particular feature.
- **API reference:**
  An API (Application Programming Interface) reference contains detailed information about each function or method exposed by an application's backend services, serving as a resource for developers when integrating their software with your app.
- **Error messages:**
  This documentation assists users in troubleshooting common issues, including explanations of system error messages and answers to frequently asked questions from customers.

2.7 Assumption and Dependencies:

Define, assess, document, and monitor-
- Human resource availability
- Budget availability
- Scheduling accuracy
- Upper management support

Functional Requirements:

All major functional features are covered below-

1. **Registration:**

   New users can register using email or Facebook id with relevant information such as full name, mobile number, password, and recognizable profile picture given-
   a. Registration request is approved by the moderator
   b. Email verification is confirmed
   c. If a member request is blocked, registration is not possible with the same email.
   d. Role can be changed from the same account.
   e. Email permission will be requested for
      - Event invitation
      - Donation invitation
      - Payment confirmation
      - Volunteer invitation
      - General communication

2. **Login:**

   User login will be approved using email or Facebook id and password. Users can log in and log out of the system. A recovery system will be available in case the user forgets the password. Users can select an allowable role during login. If the frequent attempt of failed login occurs, the account login will be temporarily frozen.

3. **Profile and settings:**
   a. Users can choose the scope of their profile and activity. They can share it publicly or within a small group of people.
   b. Emails can be updated from settings.
   c. Password can be updated from settings.
   d. Profile picture and personal information can be updated.
   e. User can switch roles as well as delete or accept an allowable role by the administration.

4. **Directory and Search:**

   Directory of registered donors, volunteers, and events will be available for the registered users. Users will be able to find information easily as –

a. Separate directory will be generated for members, donors, volunteers so that roles can be identified easily and within small period of time. There will be separate event directory as well.
b. Filter will be available to make the search easier, based on these criteria-
    - By location
    - Alphabetically
    - By Join time
    - By activity level
    - By category (for events)
    - By response (for events)
    - By time remaining (for events)

c. Search option: People can find events and members with these search filters-

For members-

    - First name
    - Last name
    - Location
    - Offering help
    - Asking help
    - Join time

For events-

    - Location
    - Response
    - Time
    - Category

5. Feed:
Feed will be generated according to-
    - Location

- User interest
- Recent activity
- Popular event
- Time

There will also be advertisements in the feed.

6. Role wise functionality:

After analyzing key features, 4 roles can clearly be identified for Fundraising Requirement Web Application – 1. Donors, 2. Event hosts, 3. Volunteers, 4. Web administrators.

Each of them will have respective functionalities –

Donor's Functionality:

1. **View fundraisings:** Donors will be notified about upcoming and running fundraising events and able to view event details. They can also follow events.
2. **Communicate with the fundraising management:** For further details, donors can communicate with the event managers. Communication makes the donation process more efficient and dynamic.
3. **Online payment:** Online payment method has to be introduced for collecting donations. For this, payment websites have to be integrated with the donation website.
4. **Access payment details:** Donors will be able to view their payment status. Notification should be sent to them after the transaction has been completed.

Host's Functionality:

1. **Track donor's activity:** The donor's recent donation activity will help hosts to manage events more efficiently. They will be able to communicate with more active donors for the event.
2. **Host campaigns:** Initiate campaigns with relevant information and introduce payment methods. Also, create a volunteer schedule and related updates.
3. **Communicate with donors:** Frequent communication with donors will make the donation process engaging and convenient.
4. **Manage volunteers:** Recruit volunteers for an event, assign tasks, and notify them about the schedule all will be conducted using the app.
5. **Apply for a grant:** managers will be able to write grant applications through the app, they can also track, submit, and keep records of grant information.
6. **Tracking donation:** Donor details, contributed amounts, and payment details will be recorded. Event hosts will be able to access these pieces of information and provide important details to the donors.
7. **View statistics:** Statistical analysis and graphs will be generated to show the progress of charity events, and donation activities to help event managers take decisions.

Volunteer's Functionality:

1. **View events:** Volunteers can explore upcoming and running events.
2. **Engage events:** Volunteers will be able to mark events and engage with their activities.
3. **Notified about schedule and updates:** Volunteers will be updated about their work schedule and time through the app.

4. **Communication:** Volunteers should be able to communicate with event hosts as well as admins. They should be able to give review of an event or submit report.

Admin's Functionality:

1. **Manage database:** Donors' data, event data, and all required information have to be stored and maintained in an efficient way.
2. **Manage security:** Security issues have to be ensured and maintained by the admin panel.
3. **Activity management:** All website activities will be monitored by the admin panel.
4. **Integration:** Payment websites and CRM systems have to be integrated with the app.

Non-Functional Requirements

1. **Third-Party Integrations:**
   - The application may integrate with third-party services, such as payment gateways or email marketing platforms, to enhance functionality and streamline processes.
   - Integration with financial systems can enable automated donation reconciliation and financial reporting.

2. **Security:**
   - Donor and organizational data should be securely stored and transmitted using encryption techniques.
   - Access controls should be implemented to ensure that only authorized users can access sensitive information.
   - The application should undergo regular security audits and vulnerability assessments.

3. Performance
- The application should provide fast response times and handle concurrent user interactions efficiently.
- The system should be capable of handling a large volume of donor and campaign data without performance degradation

4. Usability
- The user interface should be intuitive, user-friendly, and responsive.
- The application should provide clear instructions and guidance to users.
- It should support multiple languages and accessibility features to cater to a diverse user base.

5. Reliability
- The application should have a high level of availability and minimal downtime for uninterrupted usage.
- Backup and recovery mechanisms should be in place to ensure data integrity and continuity of operations.

6. Scalability
- The system should be designed to accommodate future growth in terms of the number of users, campaigns, and donations.
- It should be capable of handling increased data storage and processing requirements without performance degradation.

7. Compatibility

- The application should be compatible with a range of web browsers and devices to ensure broad accessibility.
- It should support integration with popular CRM systems and fundraising platforms without compatibility issues.

8. Maintainability

- The codebase should be well-structured, modular, and maintainable to facilitate future updates and enhancements.
- Proper documentation should be provided for developers and system administrators to understand and maintain the application.

9. User Friendly Navigation

- It The application should provide user friendly navigation using proper introduction of usage.
- A menu should contain key modules as well as settings, profile, feed, notification and other options.

These non-functional requirements help the Fundraising Management Web Application's overall quality, usability, security, and scalability.

Additional Requirements

1. Precise Event Details:

- Required information has to be provide while creating event.
- Short details about event will be asked so user can easily get the important information.

2. Review and Feedback:

- Event hosts should collect reviews from donors and volunteers.
- Admins should collect reviews from all users.
- Reports can be generated from reviews including statistics.

3. Social Media Integration:

- The application shall provide integration with popular social media platforms, such as Facebook and Twitter.
- Users shall be able to share fundraising campaigns and events on social media to expand their reach and maximize donor engagement.

4. Multiple collection methods:

- Donors should be able to pay using different payment options.
- Multiple payment option will increase the flexibility, hence result in more donation gathering.

5. Mobile Compatibility:

- The application shall be responsive and compatible with mobile devices, ensuring a seamless user experience on smartphones and tablets.
- Users shall be able to access and use the application's features on the go, allowing for greater flexibility in managing fundraising efforts.

6. Offline Mode:

- The application shall provide limited functionality in offline mode to allow users to access certain features and perform essential tasks without an internet connection.
- Users shall be able to update donor information, track donations, and perform basic functions until a connection is restored.

7. Relevant Feed:

The application may employ machine learning algorithms to provide personalized fundraising recommendations to users.

- Based on historical data and donor behavior, the system can suggest optimal fundraising strategies and target audience segments for specific campaigns.

8. **Multi-language Support:**
   - The application shall support multiple languages to cater to diverse user groups and facilitate global fundraising efforts.
   - Users shall have the option to select their preferred language for the application's interface and communication materials.

9. **Important Notification:**
   - Users should be notified about important events and information via website or email.
   - This will include payment confirmation, event deadline, schedule and other important tasks.

These additional requirements enhance the functionality and usability of the Fundraising Management Web Application, providing users with advanced features, integration capabilities, and customization options to meet their specific needs and maximize fundraising effectiveness.

Support:

A committed technical support staff will back the Fundraising Management Web Application and offer users assistance and direction. You can contact this assistance through a variety of methods, including email, phone, and a ticketing system. The program will run smoothly with the assistance of the technical support staff, which will also help diagnose problems and offer solutions to technical problems.