JUNUB HOST
WEB HOSTING · ICT SOLUTIONS

Requirements Analysis Document

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Client: GoGirls ICT Initiative

Munuki, Juba, South Sudan

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1 Introduction

1.1 Purpose

The purpose of this document is to define the functional and non-functional requirements for the redevelopment of the GoGirls ICT website. The existing website, accessible at https://gogirlsict.org, requires enhancements for improved accessibility, user experience, and administrative capabilities.

1.2 Scope

GoGirls ICT Initiative is a Juba-based non-profit organization that mentors young individuals, particularly girls, in STEAM (Science, Technology, Engineering, Arts, and Mathematics) using open resources. The website will serve as a digital hub for sharing resources, managing mentorship activities, and improving user engagement.

1.3 Objectives

- Develop a scalable, user-friendly, and accessible platform.
- Enable administrators to manage, monitor, and moderate website activities effectively.
- Implement robust security and authentication mechanisms.
- Improve visitor tracking and analytics.

1.4 Definitions, Acronyms, and Abbreviations

- **Administrator(s):** Users with privileges to manage website content and operations.
- **Super Admin(s):** Users with the highest access level, responsible for managing other administrators.
- **Visitors:** General users exploring website content.
- **Donors:** Organizations or individuals supporting GoGirls ICT financially or through partnerships.
- **Beneficiaries:** Young individuals participating in mentorship programs.

2 Overall Description

2.1 Product Description

- The website will function as an independent web-based system, accessible through modern browsers.
- It will integrate with a relational database to manage activity content, user profiles, and engagement data.

2.2 Product Features

- User authentication and role-based access control.
- Admin dashboard for content management and reporting.
- Posting, searching, and filtering mentorship activities and resources.
- Visitor engagement tracking with an analytics dashboard.
- Subscription-based notifications for new activities.
- Multi-language support (if applicable) – a consideration for system update (to be integrated with Machine Translation after full functionality).

2.3 Users

- **Super Admin:** Full access to manage users, content, and system settings.
- **Admins:** Can create and manage content but have limited administrative rights.
- **Visitors:** Can browse publicly available content and subscribe to updates.

2.4 Operating Environment

- Compatible with major web browsers (Chrome, Firefox, Safari, Edge) on desktops and mobile devices.
- Hosted on a secure cloud-based infrastructure.

2.5 Design Constraints and Assumptions

- The system should be scalable to accommodate future growth.
- Compliance with data privacy and security regulations.
- Internet connectivity is required for real-time updates and interaction.

2.6 Administration

- Admins shall be able to post various modules (projects, opportunities, and profiles) supported by different resources including texts, images, and videos.
- Modules shall include date of posting, name of the admin (optional), title, description, location, and any specific requirements.

2.7 Activity Search and Filter

» Visitors can search for activities/projects based on criteria like date, location, and category.
» Filters should help visitors narrow down their preferences.

2.8 Visitor Tracking

» The admin dashboard shall track and display user visits, and interaction with content in various presentation patterns such as tables and graphics.

2.9 Admin Panel

The admin panel shall include:

» Secure login for administrators.
» Ability to moderate and manage admin accounts and admin activities such as posting content.
» Present statistical reporting on visitors' engagement and experience(s).
» Notifications and subscriptions.
» Notify subscribed visitors of new postings and activities.

3 Interface Requirements

3.1 User Interfaces

» Responsive design for both desktop and mobile devices.

» Digital accessibility features including:

  » Dark and light mode toggle.

  » Screen reader compatibility.

  » Keyboard navigation support.

  » Alternative text for images.

3.2 Hardware

» The website must be compatible and browser-accessible via standard devices including: computer screens of different resolutions, tablets, and smartphones, all with responsive-centered design.

3.3 Software

» Integration with a relational database for secure data storage.
» API support for potential third-party integrations (e.g., payment gateways, social media, etc.).

4 Non-Functional Requirements

4.1 Performance Requirements

» The system should support concurrent user interactions without performance degradation.
» Page load times should be optimized for fast access.

4.2 Security

- Secure authentication mechanisms, including multi-factor authentication (MFA) for administrators.
- Encrypted data transmission using SSL/TLS protocols.
- Role-based access control to prevent unauthorized modifications.

4.3 Availability

- The system should maintain 99.9% uptime, with planned maintenance scheduled in advance.
- Automated backups to prevent data loss.

4.4 Maintainability

- Modular design to facilitate future updates and feature enhancements.
- Comprehensive documentation for system maintenance and development.

4.5 Documentation

- Comprehensive design documentation corresponding to code implementation.
- User manuals for administrators and content creators.
- API documentation for potential third-party integrations.

4.6 Training

- Training sessions for administrators on managing the system efficiently.

4.7 Support and Maintenance

- A ticketing system for bug reporting and technical support.
- Regular software updates and security patches.

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