**User Stories**

Donors

Donors can create an account, log in, and make donations to causes or projects. They can view detailed information about these initiatives and track their donation history. Donors are also able to update their profiles and ensure their information is current and relevant to their activities on the platform.

Companies

Companies can create an account, log in, and submit funding requests for their projects. They can provide detailed project information, receive updates on the status of their requests, and send reports on completed projects. Companies can also manage and update their profiles, ensuring accurate contact and project details, and view the history of their funding requests.

Admins

Admins can log in to the platform and perform key management tasks. They can add or remove other admins, companies, and donors. Admins can view details of both companies and donors and use a search function to easily find specific users. They can also view an overview of the company’s activities. In addition, admins can monitor donations, decide whether to accept or decline funding requests, and issue Section 18A certificates to donors for tax purposes, ensuring smooth operation and organization of the platform.

**Non-Functional Requirements**

Performance

For performance, the web pages should load within 3 seconds to ensure a smooth user experience. Firebase's real-time database helps keep response times quick, especially when users submit forms or fetch data. The API built in Visual Studio should maintain response times of less than 2 seconds, while caching static files, like images and styles, through Firebase Hosting will help improve loading times.

Scalability

In terms of scalability, Firebase is equipped to handle a growing number of users without causing slowdowns. As the number of users grows, the app will remain stable. Salting of user IDs is being added to enhance security without impacting performance or scalability.

Security

Security is a priority in the app. Firebase Authentication is used to securely manage logins for all users. Firebase generates its own user ids. The implementation of salting will make user IDs more secure. All data is encrypted both in transit and at rest using HTTPS and SSL. Firebase security rules are applied to prevent unauthorized access. The API uses HTTPS and secure tokens to further protect data.

Reliability

For reliability, Firebase ensures that the app is available 99.9% of the time, making it highly reliable. Regular data backups are scheduled to prevent data loss, and informative error messages will be displayed to guide users if any issues occur while using the app.

Usability

The app’s usability focuses on providing a simple and easy-to-use interface for all users, including admins, donors, and companies requesting help. The documentation is easy to read and understand.

Maintainability

Maintainability is achieved by keeping the app's code organized and well-documented, making it easy to update or fix issues. We made use of GitHub as our version control. The Visual Studio API is designed to be flexible, allowing for quick updates and enhancements. The app was built using MVC patterns, which makes it a modular design allowing components to be worked on without affecting the whole app.

Portability

For portability, the app currently works on limited browsers and is not yet fully compatible across all major browsers like Firefox and Safari. There are no plans for cloud migration as the app is built specifically for Firebase. The .NET framework used in the app works on Windows, macOS, and Linux.

Localization

Lastly, the app supports only English at this stage, with no plans for additional language options. It uses standard ZA formats for dates and currency.

**System Benefits**

1. Cost-Effective: Firebase provides scalable cloud infrastructure with minimal upfront costs and maintenance.

2. User Management: Firebase Authentication handles secure logins for admins, donors, and companies.

3. Reliability: High availability (99.9%) ensures the app is always accessible.

4. Security: HTTPS, SSL, and salting protect user data.

5. User-Friendly: Simple, intuitive interface for easy navigation.

6. Automatic Backups: Firebase ensures data is backed up and safe.

7. Fast Development: Visual Studio and Firebase enable rapid development.

8. Scalability: The system can easily grow to accommodate more users.

Monthly Running Costs

1. Firebase: month .

2. Domain: month.

3. SSL: Often free with Firebase or domain providers.

4. Maintenance (optional): /month for ongoing development.

Total Estimate: to /month, plus maintenance costs if needed.