Software Requirements Specification

for

Edu-Right

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Contents

1 Introduction

1.1 Purpose

The purpose of this document is to serve a comprehensive description of the online scholarship providing system that aims to prevent students from dropping out. This document will portray the features and objectives of the system, how the system will work, the interfaces of the system and the constraints under which it will operate.

The project aims to provide a platform between the ones who want to help and the ones who are in need. In brief, the platform will be offering scholarships and the sponsors can keep track of the learning progress of the ones who received their aid.

1.2 Document Conventions

- To link references - Blue color along with underline was used

1.3 Intended Audience and Reading Suggestions

This document is intended for both the developers and our respectable teachers. This report will walk through the description, requirements and features of the system.

1.4 Product Scope

The primary objective of the project is to develop a platform that will be focusing on helping the children in need. And assets of this system will be the humanitarian people who wish to bring a positive change in the society and nation as well.

One in every five children drops out of school mainly because of poverty as per the report of The Dhaka Tribune (2017). So, there's a huge amount of students who are in need of aid. This platform will act as a bridge between their needs and the goodwill of the philanthropists.

1.5 References

- The Dhaka Tribune

- Krazy Tech

- Source code in Overleaf

2 Overall Description

2.1 Product Perspective

This system stores the following information:

- **Student Details:** It includes student ID, name, email address, phone number, gender, date of birth, school, standard and result.

- **Sponsor Details:** It includes sponsor ID, name, email address, phone number, gender, date of birth and profession.

- **Transaction Details:** It includes transaction ID, amount, date of transaction, student ID and sponsor ID.

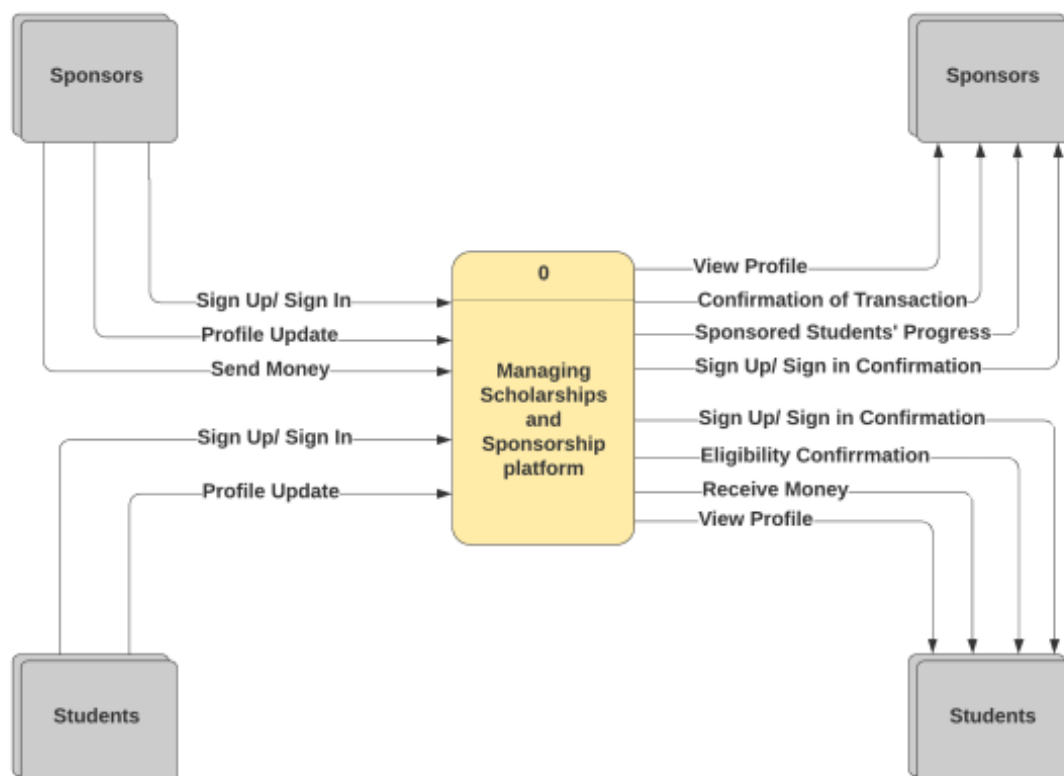The context diagram of the system is given below:

Figure 1: Context Diagram

2.2   Product Functions

Figure 2: Class Diagram

Major Functions

- Sponsors' and students' profile

- Students will be able to apply by themselves

- Sponsors will be able to track results of students

2.3 User Classes and Characteristics

The two main users of the system are sponsors and students. Students will get scholarship and on the other hand sponsors will be financing their scholarships.

i **Student Functions:**

- Sign up and Sign in to the system
- Will be able to apply for scholarship
- Receive money

ii **Sponsor Functions:**

- Sign up and Sign in to the system
- Send money
- Review sponsored students' progress

2.4 Operating Environment

Operating environment for the system is as listed below.

- Operating system: Windows
- Database
- WordPress

2.5 Design and Implementation Constraints

- Due to the limitation of time, WordPress will be used to build the website which might provide less flexibility
- Due to lack of resources, the website will not be hosted on a live server
- Due to lack of resources, there will be limited number of transaction options

2.6 User Documentation

A "Getting Started" article will be provided in the website.

2.7 Assumptions and Dependencies

To handle the system transaction process, payment gateway will be used. But this creates a dependency on the payment gateway. If any sort of internet/server connection failure occurs during the transaction then that can create discrepancies in the process of transaction.

3 External Interface Requirements
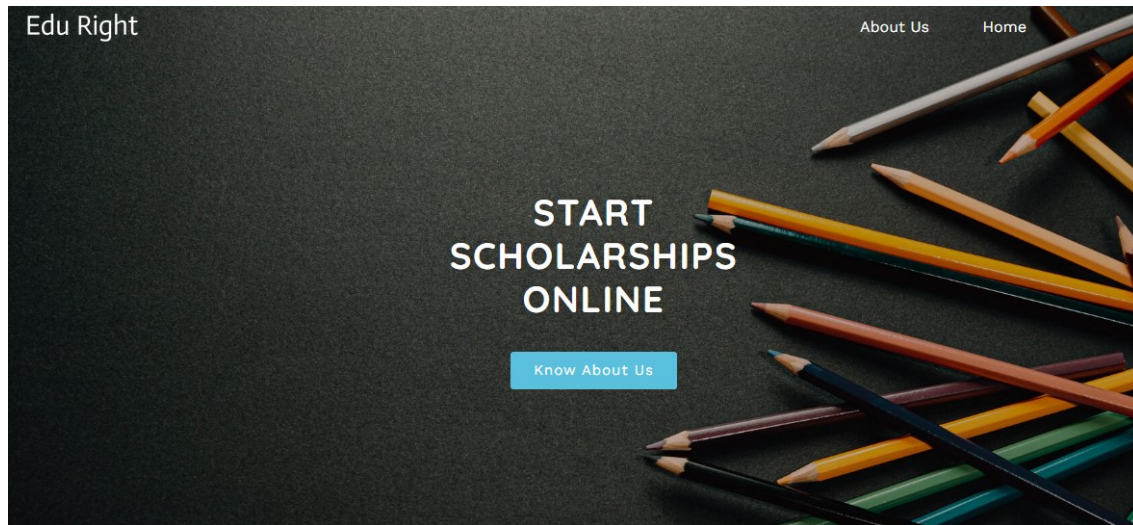
3.1 User Interfaces
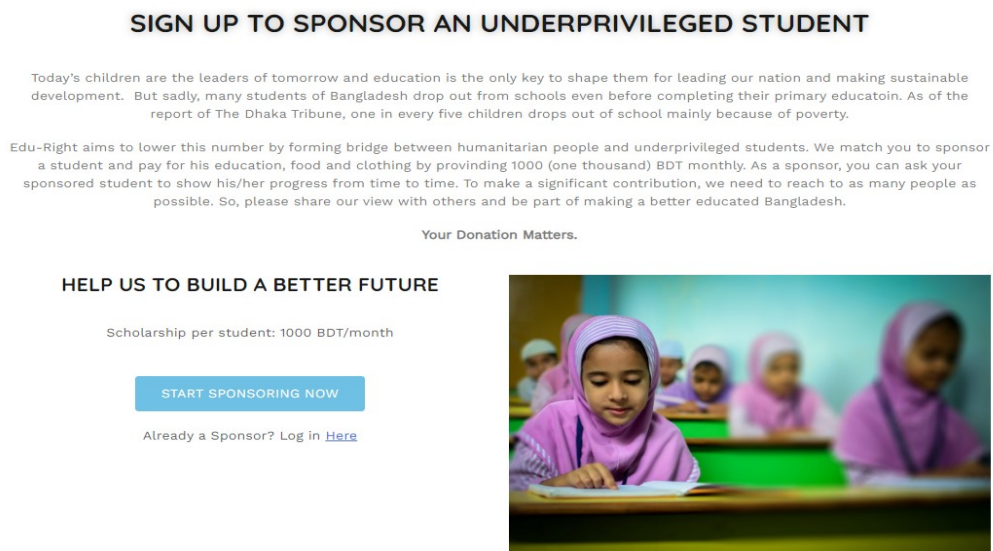

Figure 3: Home Page - (i)

Figure 4: Home Page - (ii)

There will be several user interfaces in the website like the registration form, login form, home page, profile page etc. For any prospective sponsors/students, they will first visit the homepage of website. To use the system for the purpose it was made, they need to register

in the system. Then they might login which will bring them to their respective profile and there they will find their personal information.

Figure 5: Home Page - (iii)

Figure 6: Sample Student Registration Form
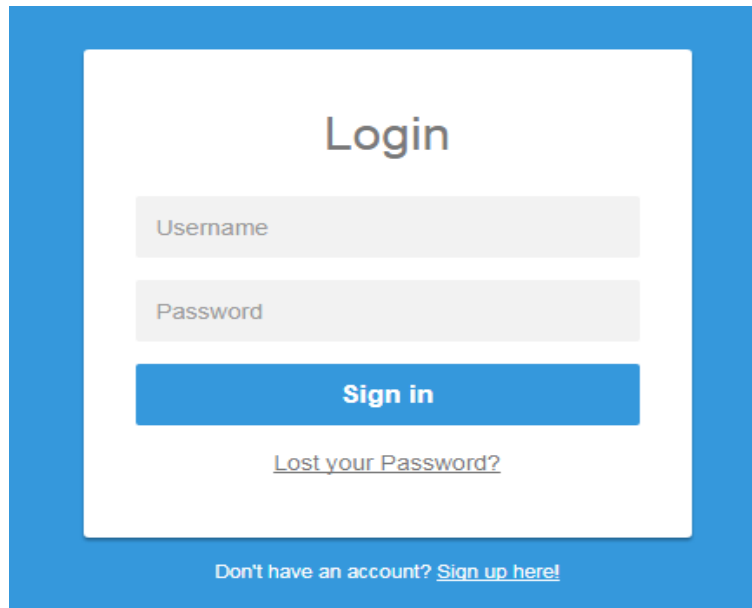
Figure 7: Sample Login Form

Similar registration interfaces will be there for sponsors as well.

3.2   Hardware Interfaces

Windows, Browser that supports WordPress (HTML, CSS)

3.3   Software Interfaces

Following are the software used for the system

- Operating system - Windows Operating System

- Database - MySQL

- Web Server - Apache

- Content Management System - WordPress

- Plugins - Woocommerce, Elementor, Contact Form 7 and so on

3.4   Communications Interfaces

This project supports all types of web browsers and uses the services of email to communicate.

4 System Features

The overview of the system could be understood from the Use Case Diagram given below:
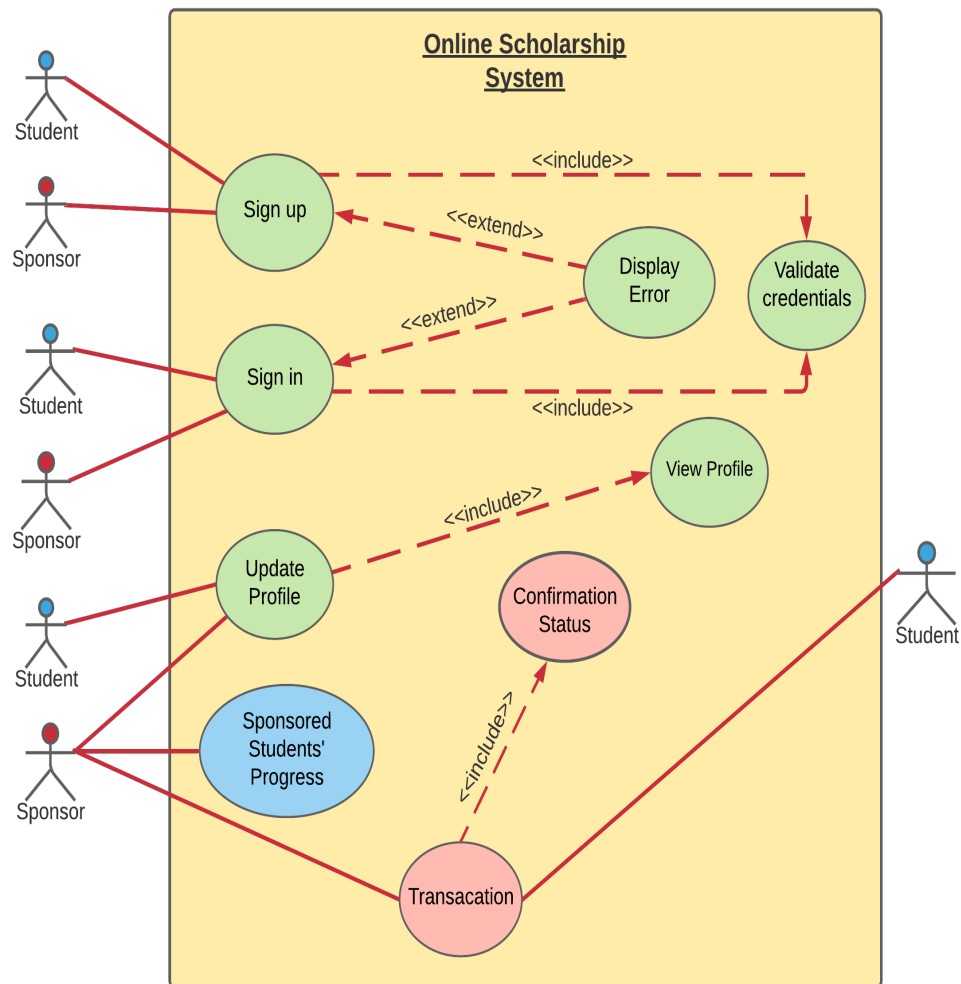

Figure 8: Use Case Diagram

4.1   Transaction of Money

Description and Priority

Transaction of money is a must have feature of the project. So, it's in 1 position of the system's priority list.
Benefit - 9

Stimulus/Response Sequences

The whole transaction process is stimulated by the sponsor sending money to the system and then the students will be on the responsive side receiving the money.
Sponsors will first login to their account in the system. Then they will use a payment gateway to send money to the system. Then the money will be redirected to the student.

Functional Requirements

Transaction process will require payment gateway and API for the sponsors to be able to send the money. Then, the students will be able to receive the money.

4.2   Sponsored Students' Progress

Description and Priority

Sponsor will be able to track his sponsored student's progress. This will ensure proper accountability on the students' part.
Benefit - 7

Stimulus/Response Sequences

The students will update their results time to time. Then, the sponsors will be able to view the progress of the students that they have sponsored. This feature will make the students more responsible towards their studies and their sponsor.

Functional Requirements

The students' performance records will be stored in database. The sponsor can view their sponsored students' profile and the corresponding records will be there.

4.3   Students' & Sponsors' Profile

Description and Priority

Each user (both the students and sponsors) of the system will have their personal profile. They will be able sign in and off the system. Then they will be able to view and update their profile.
Benefit - 5

Stimulus/Response Sequences

When a user signs up for the first time, their profile will be created. For students, when they sign up, a request for scholarship will be generated which will be reviewed by the admin.

Functional Requirements

For having profiles, users first need to register into the system, then they will sign in to view their profile. For creating this registration and sign in form, different plugins will be used. In the event of any failure or invalid input, an error message will be shown.

5 Other Nonfunctional Requirements

5.1 Performance Requirements

The steps involved to perform the implementation the system are listed with E-R diagram showing the entities, attributes and relationships:
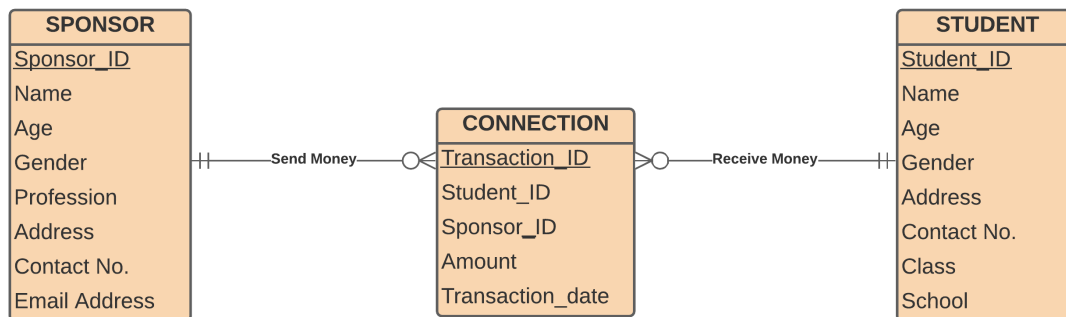

Figure 9: ER Diagram

5.2 Safety Requirements

Extensive damage to a wide portion of the database due to catastrophic failure, such as a disk crash could destroy a good portion of data. For that a recovery method will be taken which will restore a copy of the database.

5.3 Security Requirements

Database security should be ensured so that data of one entity doesn't get accessed by another entity. Transaction information should also be secured so intruders can't get access to any sensitive data. While registering, user should be authenticated by sending an OTP to their email address.

5.4   Software Quality Attributes

Simplicity: The user interfaces should be simple and friendly to use.
Availability: The system should always be available.
Correctness: The sponsor and student should be properly linked and the money transaction has to be accurate.
Usability: Any person with basic English knowledge should be able to operate.

6   Other Requirements

The system requires it to be hosted in a live server for reach-ability but due to lack of resources it is hosted on local server.
To increase the robustness of the system, it's needed to integrate all available payment options like bKash, Nogod, Rocket, VISA card, MasterCard etc which is not quite possible due to lack of resources.
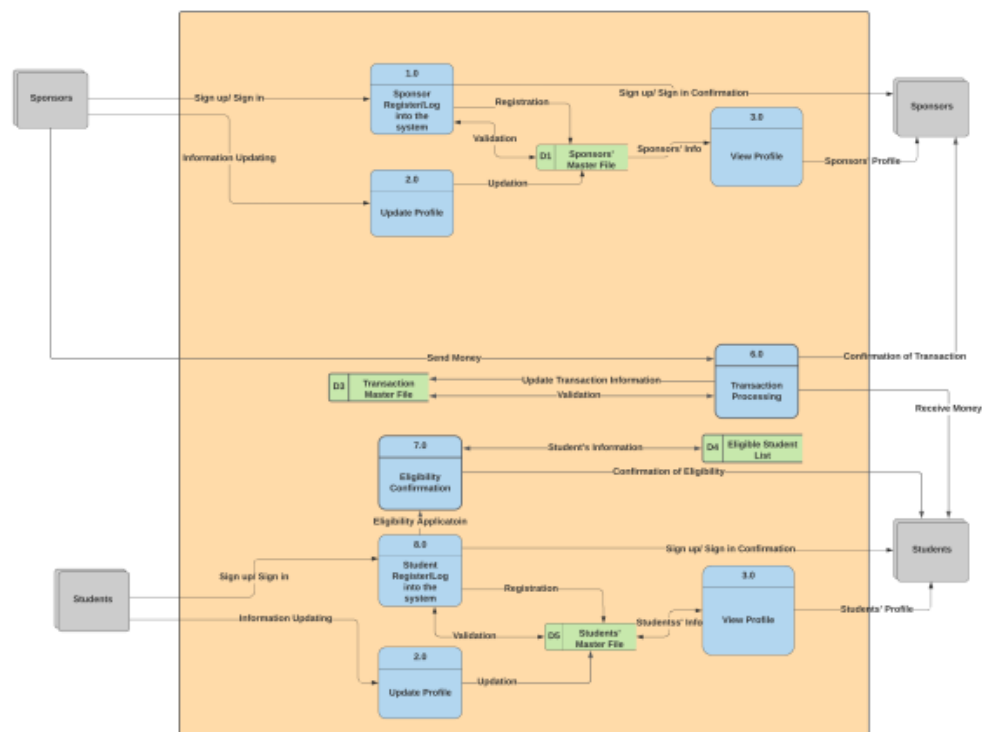
Appendix A: Analysis Models

Figure 10: Diagram 0