

**SCHOLARSHIP MONITORING SYSTEM**

**BY**

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This Report Presented in Partial Fulfillment of the Requirements for the  
Degree of Bachelor of Science in Computer Science and Engineering

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**DAFFODIL INTERNATIONAL UNIVERSITY**

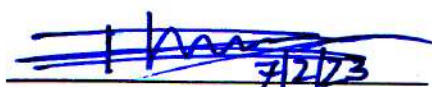
**DHAKA, BANGLADESH**

**JANUARY 2023**

## APPROVAL

This Project titled “Scholarship Monitoring System”, submitted by Dijodduti Talukder ID No:181-15-1826 and Sayed Morsalin ID No:181-15-1811 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 5 February 2023.

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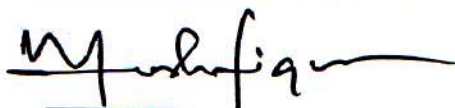
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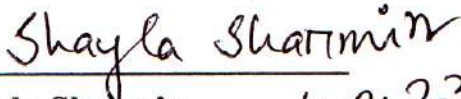
We hereby declare that, this project has been done by us under the supervision of **Amit Chakraborty Chhoton, Sr. Lecturer, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma

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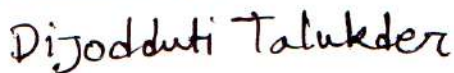
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## **ABSTRACT**

The Scholarship Monitoring System is a web-based application designed to streamline and automate the process of tracking and managing scholarship awards for students. The system also provides students with access to their scholarship information and allows them to track their progress and submit required documentation. Among other things, the Government of the People's Republic of Bangladesh provides a range of grants, fellowships, and scholarships. The scholarship announcement is made on a number of ministry websites, in the media, and in handwritten letters. The system for classifying the industries to whom scholarships will be awarded is maintained by the government or a government agency. This is mostly due to the fact that each recipient of an award purchases a range of materials for the creation of their project and obtains manual vouchers from vendors or retailers. Appropriately, the money monitoring system may contain certain inconsistencies, which could cause a financial loss for the government. The administrator of My Scholarship Monitoring System can control the student payment system and view their data from a single admin panel. This technology will be able to monitor the proper scholarship distribution to students. This system would be connected to the Nagad Banking System. By automating and streamlining these processes, the scholarship monitoring system will help institutions efficiently and effectively manage their scholarship programs.

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# **CHAPTER 1**

## **Introduction**

### **1.1 Introduction**

The Scholarship Monitoring System is designed to efficiently track and manage scholarship awards for students. It is connected to the Nagad Banking System and includes features for automating the money distribution process, monitoring fellowships, projects, and awards, and more. The system is made up of three main components:

- 1)Web UI
- 2)Database
- 3)Payment Interfaces

### **1.2 Motivation**

It's clear that there is a need for a system that can more effectively track and manage scholarship funds, especially given that the current amount of scholarships offered to students is not sufficient to meet their needs. The Scholarship Monitoring System aims to address this issue by providing a centralized platform for managing scholarship programs and ensuring that funds are distributed and used wisely. It includes features such as application review, award selection, disbursement tracking, and renewal management to help administrators oversee the scholarship process and make informed decisions about how funds are allocated. Additionally, by giving students access to their scholarship information and tools for tracking their progress, the system aims to empower them to use their funds responsibly and effectively. The goal of the Scholarship Monitoring System is to alleviate financial hardship and support the success of students by providing a more transparent and efficient system for managing scholarship programs.

### **1.3 Objectives**

Here are some potential objectives for the Scholarship Monitoring System project:

1. To streamline and automate the process of tracking and managing scholarship awards for students, reducing the workload for scholarship administrators and improving the efficiency of the process.
2. To provide a centralized platform for managing scholarship programs, allowing all stakeholders to access and update information in real-time.
3. To improve the transparency of the scholarship process for both administrators and students, by providing clear and comprehensive data on applications, awards, disbursements, and renewals.
4. To empower students to take ownership of their scholarship experience, by giving them access to their scholarship information and tools for tracking their progress.
5. To support the success of students by ensuring that scholarship funds are used wisely and effectively, and by providing resources and support to help students make the most of their awards.
6. To reduce the risk of financial loss for the government or funding agency by providing a system for accurately tracking and managing scholarship funds.

### **1.4 Expected Outcomes**

The goal of this project is to develop an automated system that utilizes digital payment methods for both the distribution and tracking of scholarship funds. This system will allow administrators to manage the flow of money in a more efficient and transparent way, while also providing students with a convenient and secure way to access and use their scholarship funds. By leveraging digital payment technologies, the project aims to improve the overall effectiveness and reliability of the scholarship management process.

## **1.5 Report Layout**

There are seven sections in this report.

**Introduction:** The project will be introduced, including the problem statement and the objectives of the scholarship monitoring system.

**Background:** The background of the project, including the research and development that led to the creation of the scholarship monitoring system, will be discussed.

**Requirement Specification:** The requirements of the scholarship monitoring system, including functional and non-functional requirements, will be specified.

**Design Specification:** The design of the scholarship monitoring system, including the architecture and user interface, will be specified.

**Implementation and Testing:** The process of implementing and testing the scholarship monitoring system will be discussed, including any challenges encountered and how they were addressed.

**Impact on Society, Environment and Sustainability:** The impact of the scholarship monitoring system on society, environment and sustainability will be discussed, including any positive or negative effects and how they were mitigated.

**Conclusion and Future Scope:** The conclusion of the project will be presented, including a summary of the main findings and the overall effectiveness of the scholarship monitoring system. The future scope of the project, including potential improvements and areas for further research, will also be discussed.

## **CHAPTER 2**

### **Background**

#### **2.1 Related Works**

There has been a number of scholarship monitoring system has already been developed. In Bangladesh, it has already been developed and it is solving some problems significantly. But there is still some scope for developing this particular problem. Because there is million of registered students in Bangladesh, which brings a number of scope of work in the field of scholarship monitoring system. This is the principal reason for developing our project.

#### **2.2 Comparative Analysis**

The model we have developed has certainly solved some problems to some extent. We have checked with other websites and other projects related to the scholarship monitoring system. The result that we have found is prominent and we truly believe that if the government of Bangladesh use this for the proper distribution of scholarship among all the students, the students will get a great help from our community. In recent years, the distribution is not properly established among students so that most of the students is deprived of the scholarship. This problem was needed to be solved. This is the reason we have selected this problem so that students are not deprived of their rights.

#### **2.3 Scope of the Problem**

In Bangladesh, the government offers scholarships through various websites, but there is no existing system in place to monitor these scholarships. In order to address this issue, the decision was made to develop a web-based application called the Scholarship Monitoring System. This system will allow administrators to track and manage all aspects of the scholarship process, including the distribution of funds to students. By providing a centralized platform for managing scholarship programs, the system aims to improve the transparency and efficiency of the scholarship process, while also supporting the success of students by ensuring that scholarship funds are used wisely and effectively.

## **2.4 Challenges**

One of the main challenges in developing the Scholarship Monitoring System is the need to track and manage scholarship funds effectively. This requires finding a way to track payments made by students, who will likely use the banking system as their preferred method of payment. To support this feature, the team is working to find a suitable web API for integrating with the banking system. The main aim of this integration is to enable real-time tracking of scholarship payments, which will make the process more efficient and reliable. However, this is proving to be a challenging task, as it requires finding a solution that is both reliable and secure. The team has been researching various web APIs that can be used for this integration, but many of them have limitations in terms of security, scalability, and reliability. Finding a suitable API that can handle large volume of transactions, provide secure data transfer and is easy to integrate with the system is a key factor to be considered. The team is also evaluating other alternatives like integrating with the bank's API directly or developing their own API. The final decision will be taken after evaluating the pros and cons of each approach and their impact on the system's performance, security and scalability.

## CHAPTER 3

### Requirement Specification

#### 3.1 Business Process Modeling

Business Process Modeling for the Scholarship Monitoring System involves creating a visual representation of the key processes and activities involved in managing scholarship programs. This can help to identify potential bottlenecks or inefficiencies in the process, as well as opportunities for automation or improvement.

Here is an example of how Business Process Modeling might be applied to the Scholarship Monitoring System:

1. **Application review:** This process involves evaluating scholarship applications to determine which students are eligible for awards. It may include tasks such as reviewing application materials, verifying transcripts and other supporting documents, and making decisions based on established criteria.
2. **Award selection:** Once eligible students have been identified, a process is needed to determine which students will receive awards. This may involve reviewing application materials, conducting interviews or other assessments, and making final decisions based on the available funds and the needs of the students.
3. **Disbursement:** The process of disbursing scholarship funds to students may involve issuing checks or transferring funds to students' bank accounts. It may also include tasks such as generating disbursement reports and communicating with students about the disbursement process.
4. **Renewal:** Many scholarship programs require students to reapply for funding each year. The renewal process may involve reviewing students' progress and ensuring that they are meeting the requirements of the scholarship program. It may also involve making decisions about which students will continue to receive funding and which students will no longer be eligible.

By modeling these key processes, it is possible to identify opportunities for streamlining and automating the scholarship management process, as well as potential challenges or issues that may need to be addressed.

### **3.2 Requirement Collection and Analysis**

List of requirements for the Scholarship Monitoring System:

1. The system should be able to store and manage student information, including their personal details, educational background, and scholarship status.
2. It should be able to track the status of scholarship applications and payments, including the amount disbursed and any outstanding balance.
3. The system should allow authorized users, such as scholarship administrators, to review and approve scholarship applications.
4. It should be able to generate reports on scholarship distribution and utilization, as well as individual student performance.
5. The system should have a secure login system for authorized users to access and update information.
6. It should have a user-friendly interface to allow for easy navigation and data entry.

To gather these requirements, the following analysis activities can be performed:

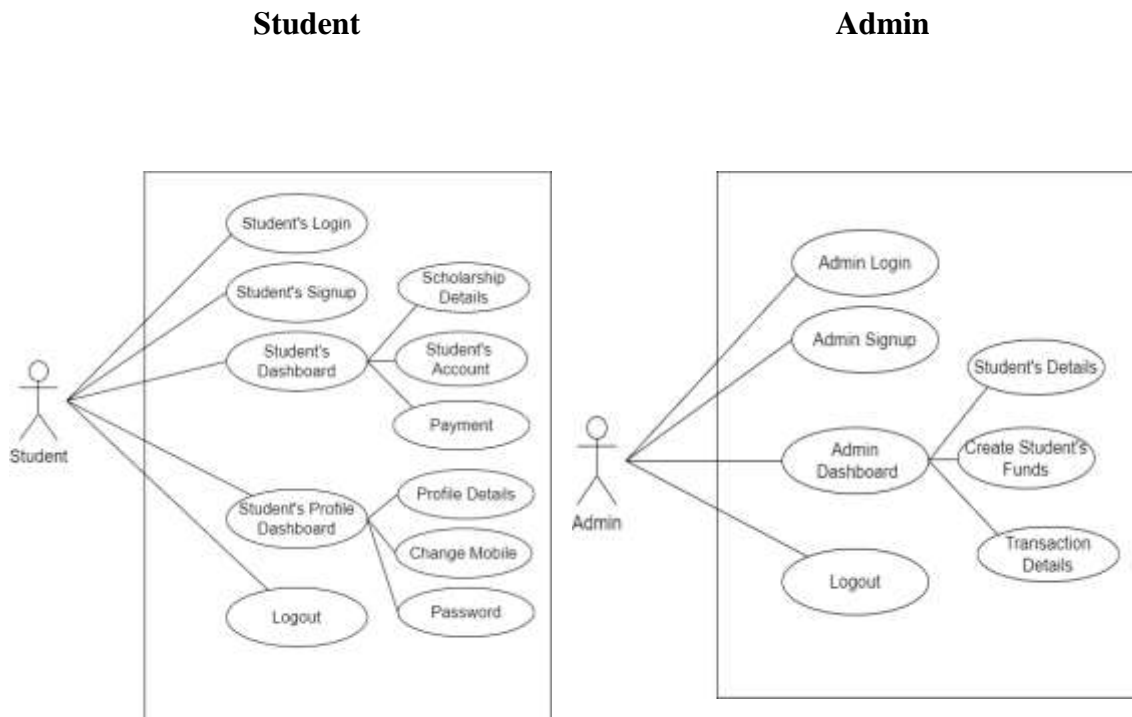
1. Interview stakeholders such as scholarship administrators and students to understand their needs and expectations from the system.
2. Conduct a review of existing scholarship management systems to identify best practices and features to include in the new system.
3. Develop user stories to define the functionalities and features of the system.
4. Create a requirements document that outlines all the functional and non-functional requirements of the system.
5. Review the requirements document with stakeholders to get their feedback and make any necessary revisions.



### 3.3 Use Case Modeling and Description

The use case diagram for the Scholarship Monitoring System illustrates the interactions between the system and the users, as well as the sequence of events that occur during these interactions. The use cases are based on the user interface of the system and describe the functions that are available to different roles or actors. The main purpose of the use case diagram is to show how the system supports the needs of its users and what actions are performed for each role. The use cases for the Search Engine have been developed based on the user interface of the system, providing a clear understanding of the capabilities and functionality of the system.

Use case diagram of our system is shown on the following figure



**Fig: Use Case Diagram Scholarship Monitoring System.**

### 3.4 Logical Data Model

Here is a possible logical data model for the Scholarship Monitoring System:

Entity: Student

- Attributes: Student ID, First Name, Last Name, Date of Birth, Gender, Email, Phone Number, Address, Educational Background, GPA, Financial Need

Entity: Scholarship

- Attributes: Scholarship ID, Name, Description, Eligibility Criteria, Amount, Duration, Number of Awards Available

Entity: Application

- Attributes: Application ID, Student ID, Scholarship ID, Status (Pending, Approved, Rejected), Date Submitted

Entity: Payment

- Attributes: Payment ID, Application ID, Amount, Date Paid, Remaining Balance

Entity: User

- Attributes: User ID, First Name, Last Name, Role (Administrator, Student), Email, Password

Entity: Report

- Attributes: Report ID, Type (Scholarship Distribution, Student Performance), Date Generated, Data (JSON object with report details)

Relationships:

- One student can have multiple scholarship applications (1:N)
- One scholarship can have multiple applications (1:N)
- One application can have multiple payments (1:N)
- One user can generate multiple reports (1:N)

### 3.5 Design Requirement

Here are some design requirements for the Scholarship Monitoring System:

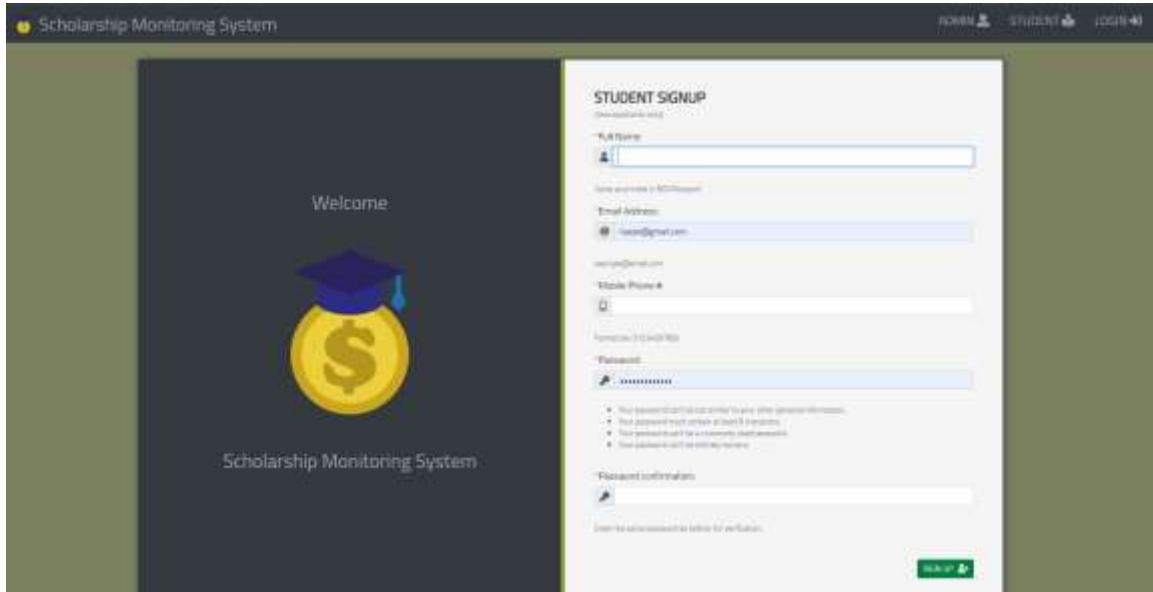
1. The system should have a responsive design that works well on different devices and screen sizes.
2. It should have a modern and professional visual design that is easy on the eyes and easy to use.
3. The user interface should be intuitive and user-friendly, with clear and concise instructions and labels.
4. The system should have a clear and logical navigation structure, with the ability to access all features and functions from the main menu.
5. It should have search and filter functionality to allow users to quickly locate specific records or information.
6. The system should have the ability to import and export data, such as student and scholarship information, in common formats such as CSV or Excel.
7. It should have data validation to ensure that only accurate and complete information is entered into the system.
8. The system should have adequate security measures to protect sensitive data and prevent unauthorized access.
9. It should have the ability to generate reports in a variety of formats, such as PDF or Excel, for easy sharing and analysis.
10. The system should have error handling and notification features to inform users of any issues or problems that occur during the use of the system.

# CHAPTER 4

## Design Specification

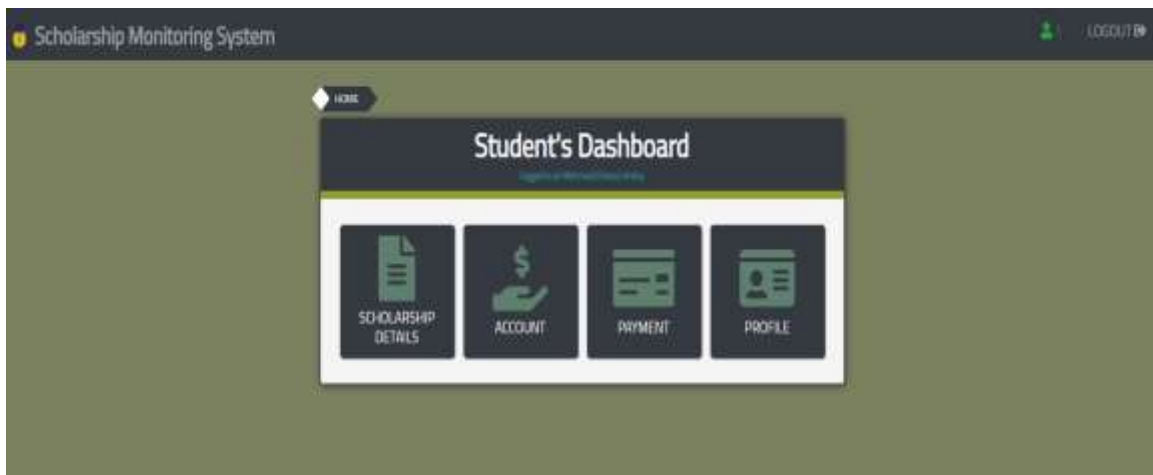
### 4.1 Front-end Design

#### Student UI/UX



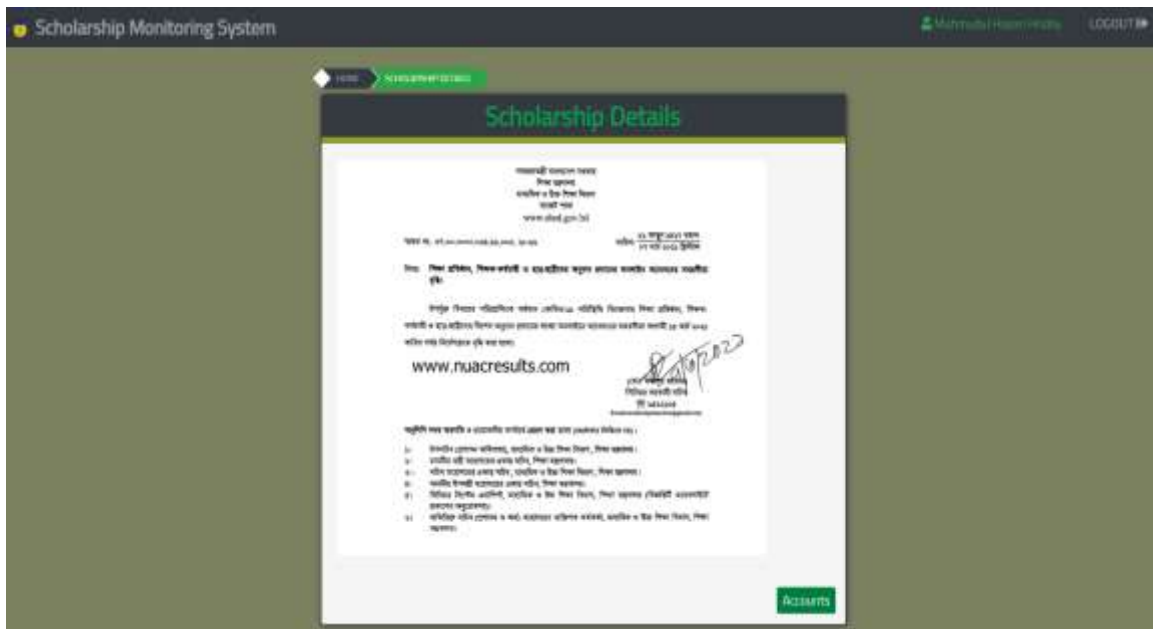
**Fig 4.1.1: Student Signup Page**

This is the UI for the student signup page. From here any student can create their profile.



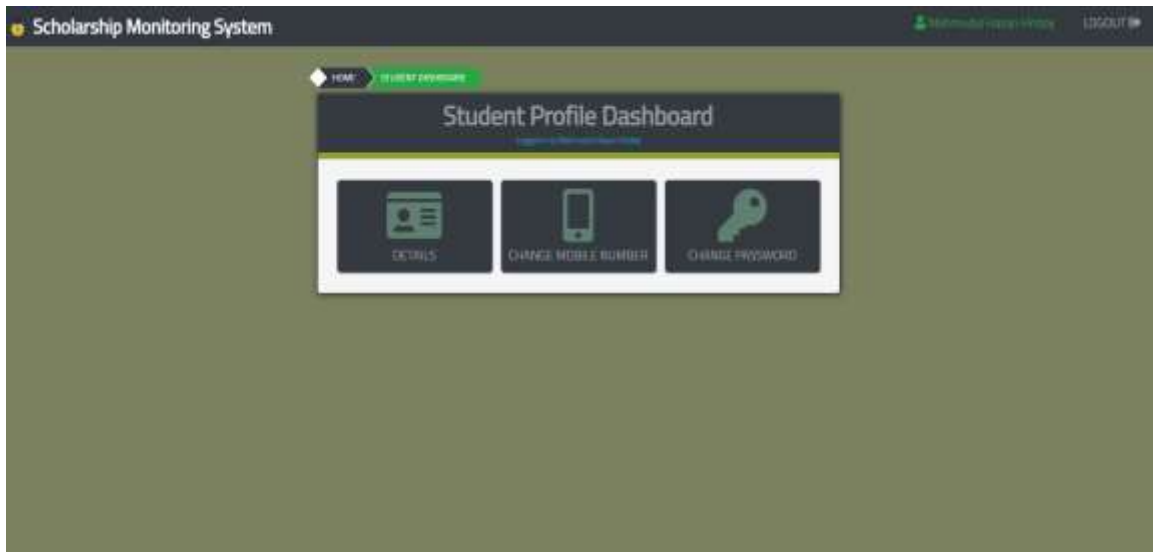
**Fig 4.1.2: Student Dashboard**

This Is Student Dashboard. Here student can see their Scholarship Detail, Account, Payment & profile.



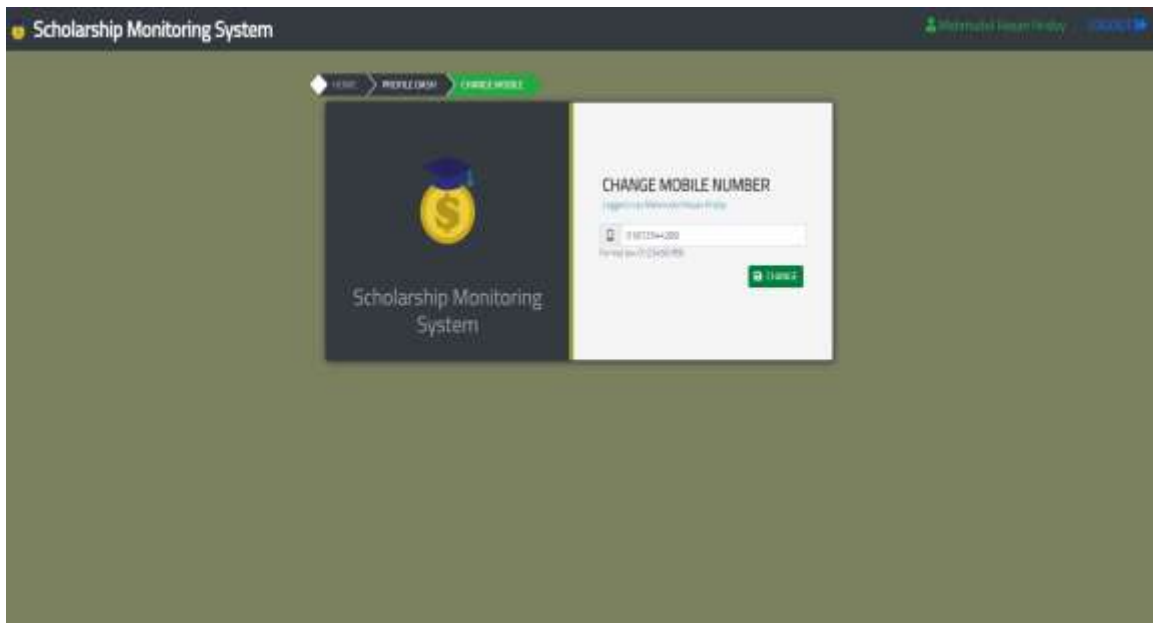
**Fig 4.1.3: Student Scholarship Page**

This is Student Scholarship Details. Here he/she can see their Scholarship.



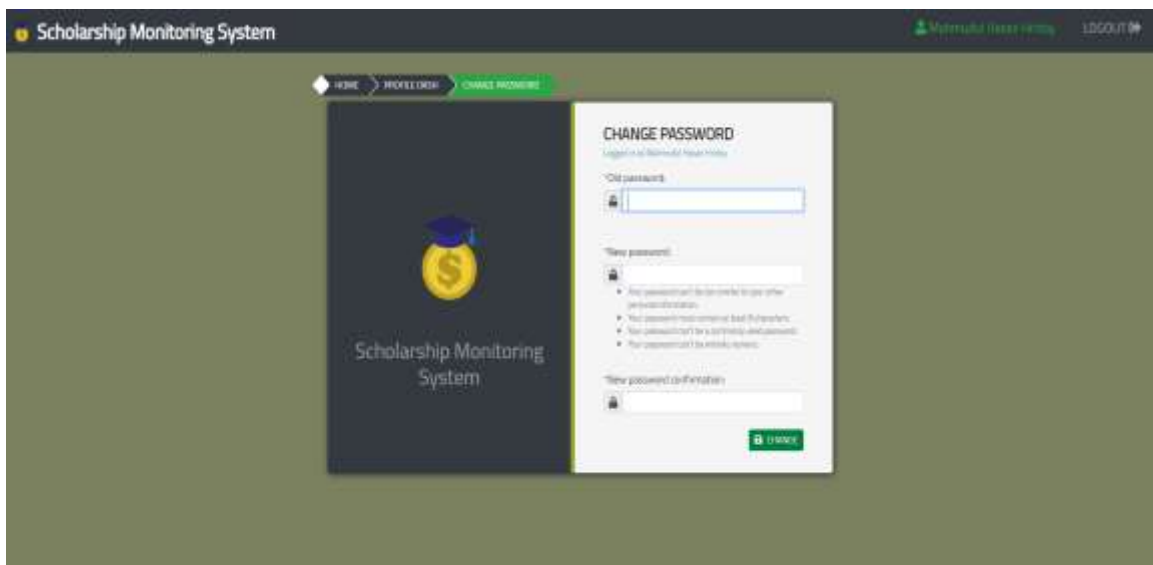
**Fig 4.1.4: Student Profile Dashboard**

This is the student profile dashboard. Here he/she can change their mobile number and password, also see their details.



**Fig 4.1.5: Student Number Change Page**

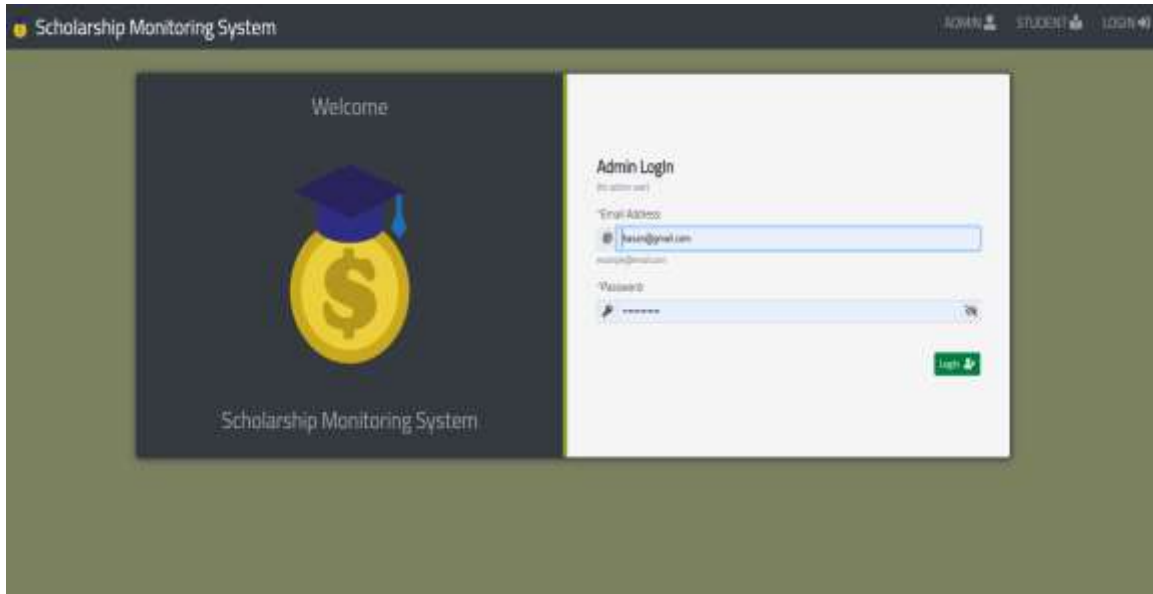
Here Student can change their mobile number.



**Fig 4.1.6: Student Password Change Page**

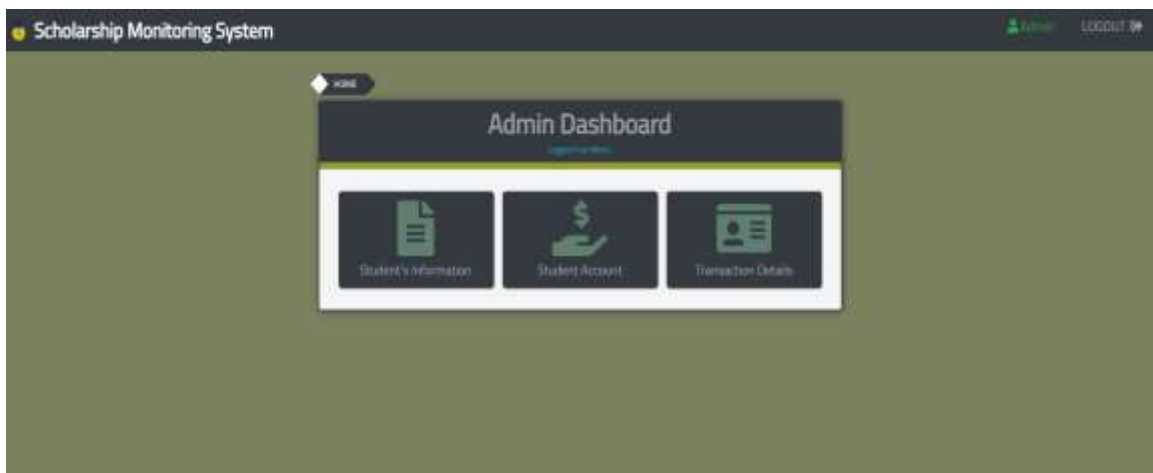
Here Student can change their password.

## 4.2 Back-end Design



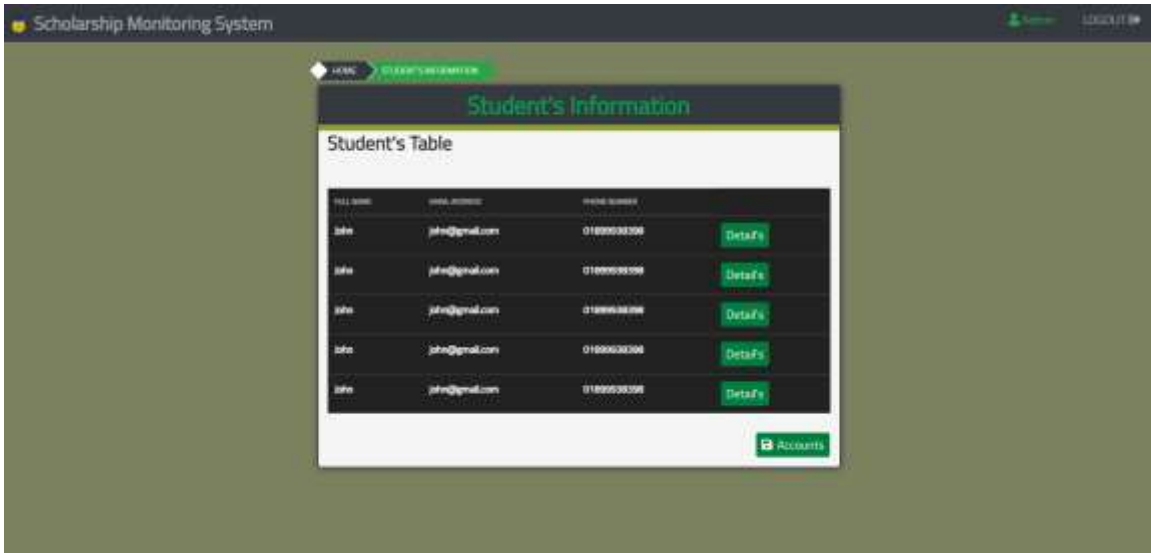
**Fig 4.2.1: Admin Login Page**

Here is the Admin panel login. For the admin panel, we fixed the pass and id so that only the admin who knows the password can log in as an admin.



**Fig 4.2.2: Admin Dashboard Page**

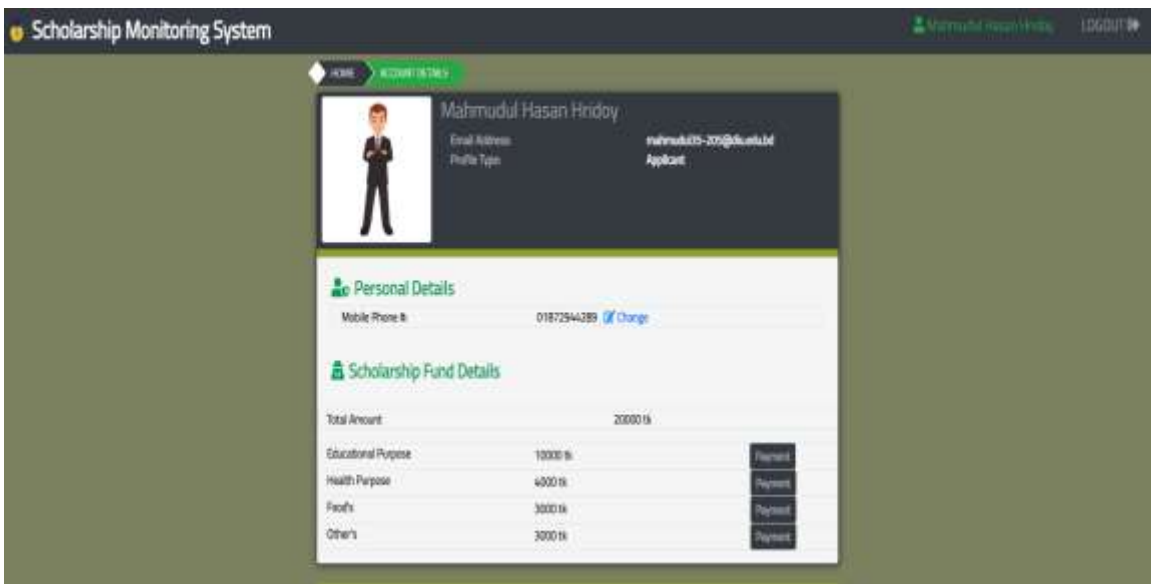
This is the admin dashboard. Here admin can see the student information, student account, and transaction detail.



**Fig 4.2.3: Admin Management Page**

### 4.3 Interaction Design and User Experience (UX)

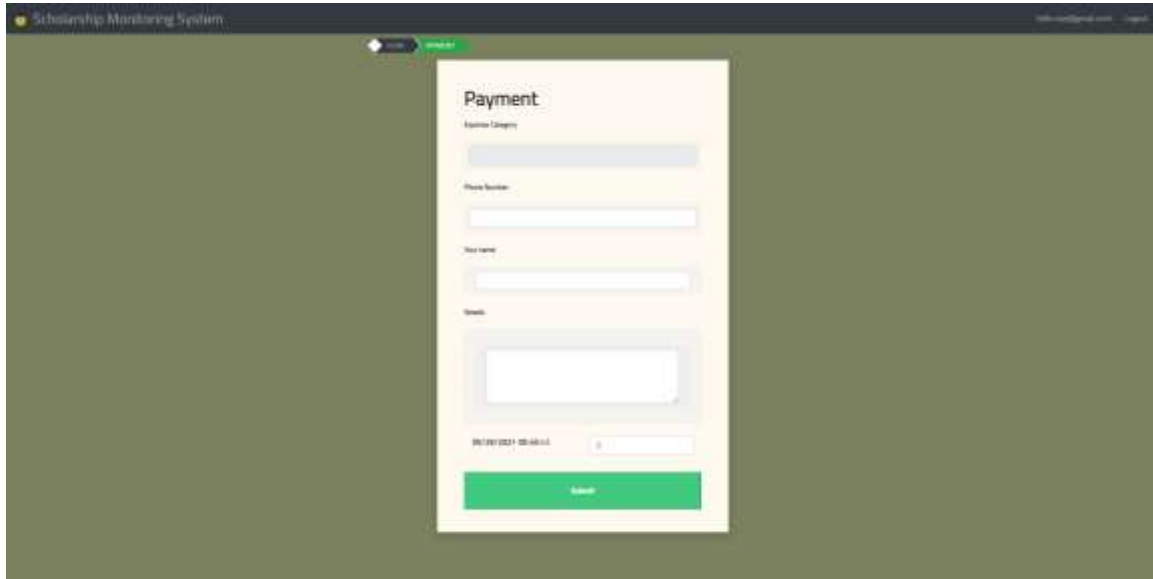
The term "graphical user interface" is abbreviated as "GUI" (GUI). The GUI is each project's primary view. The following pictures show how the Scholarship Monitoring System appears:



**Fig 4.3.1: Student Info Page**



This is the student profile. When a student makes a profile on this site he/her profile is shown like this. Here he can see the individual scholarship fund. Also from here, students can change their mobile numbers.



**Fig 4.3.2: Payment page**

This is the payment page. Here student can cash out their money throw NAGAD, B-KASH, and other payment systems. From here if any student wanted to give money to other organizations he can easily give the money to them.

#### **4.4 Implementation Requirements**

##### **Software Requirements**

<b>Operating System</b>	:	Windows 10 Professional
<b>Environment</b>	:	Visual Studio 2019
<b>Asp.net Core Framework</b>	:	Version 5.0.5
<b>Language</b>	:	C# .Net

**Web Technology** : HTML, CSS, Bootstrap -4  
**Backend** : Microsoft SQL Server Management Studio  
**Version Controlling** : GitHub

### **Hardware Requirements**

**Processor** : Intel Core i5, 7<sup>th</sup> gen.  
**Ram** : 8GB  
**Monitor** : 21.5” Color  
**Hard Disk** : 1TB  
**Keyboard** : Standard  
**Mouse** : 3 Buttons

## CHAPTER 5

### Implementation and Testing

#### 5.1 Implementation of Database

We used the tool MS SQL Server Management

Here is an outline of the implementation of MS SQL Server Management for the Scholarship Monitoring System:

1. Install MS SQL Server Management Studio on a suitable computer or server.
2. Create a new database for the Scholarship Monitoring System.
3. Create tables in the database to store the various entities, such as students, scholarships, applications, payments, users, and reports.
4. Define the attributes and data types for each table, such as varchar for text fields and int for numerical fields.
5. Establish relationships between the tables as needed, such as one-to-many relationships between students and applications or between applications and payments.
6. Use SQL statements to create indexes and constraints on the tables to improve performance and enforce data integrity.
7. Use SQL statements to insert sample data into the tables for testing and development purposes.
8. Connect the C# application to the database using a suitable database driver and connection string.
9. Implement functions in the C# application to perform database operations such as inserting, updating, deleting, and querying data.
10. Test the database integration in the C# application to ensure that it is working correctly and efficiently.
11. Deploy the C# application and database to the production environment.
12. Monitor and maintain the database as needed, including performing backups and troubleshooting any issues that arise.

## **5.2 Implementation of Front-end Design**

Here is an outline of the implementation of the front-end design for the Scholarship Monitoring System:

1. Determine the overall look and feel of the application, such as the color scheme, font choices, and layout.
2. Use a suitable design tool, such as Adobe XD or Sketch, to create wireframes or mockups of the application's screens and user flows.
3. Based on the wireframes, create the HTML, CSS, and JavaScript code for the application's user interface.
4. Use a responsive design approach to ensure that the application looks good and functions well on different devices and screen sizes.
5. Use C# to integrate the front-end code with the back-end functionality of the application, such as data retrieval from the database or server-side processing.
6. Test the front-end design in different web browsers and on different devices to ensure compatibility and usability.
7. Iterate on the design as needed based on user feedback and testing results.
8. Deploy the front-end design to the production environment.
9. Monitor and maintain the front-end design as needed, including making updates and fixes as necessary.

## **5.3 Testing Implementation**

Here is an outline of the testing implementation for the Scholarship Monitoring System:

1. We Develop a testing plan that outlines the scope, objectives, and approach for testing the application.
2. We Create test cases based on the requirements and user stories for the application.
3. After that we Set up a testing environment that includes the necessary hardware, software, and data.

4. Create test data that represents a variety of scenarios and edge cases.
5. Write and run automated test scripts using a testing framework such as NUnit or MSTest.
6. Conduct manual testing to validate the functionality and usability of the application.
7. Record and document any issues or defects that are discovered during testing.
8. Use bug tracking software to track the status of defects and their resolution.
9. Perform regression testing after fixing defects to ensure that the changes have not introduced new issues.
10. Conduct performance testing to ensure that the application meets the necessary performance and scalability requirements.
11. Conduct user acceptance testing with representative users to ensure that the application meets their needs and expectations.
12. When testing is complete and all issues have been resolved, release the application to production.

## **CHAPTER 6**

### **Impact on Society, Environment and Sustainability**

#### **6.1 Impact on Society**

It's great that you are considering the impact of your project on society! Here are some possible ways in which the Scholarship Monitoring System could have a positive impact on society:

1. The system could make it easier for students to find and apply for scholarships, increasing their access to financial support for higher education.
2. It could streamline the scholarship management process for administrators, reducing the time and effort required to review and approve applications.
3. By tracking student performance and financial need, the system could help ensure that scholarships are distributed fairly and effectively.
4. The system could provide valuable data and insights on scholarship distribution and utilization, which could be used to inform policy decisions and improve the effectiveness of scholarship programs.
5. By making it easier for students to access and manage their scholarship information, the system could help them feel more in control of their financial situation and future prospects.
6. By improving the transparency and accountability of scholarship programs, the system could help build trust and confidence in these programs among students, administrators, and the wider community.

#### **6.2 Impact on Environment**

We are considering the impact of our project on the environment! Here are some possible ways in which the Scholarship Monitoring System could have a positive impact on the environment:

1. By providing an online platform for scholarship applications and management, the system could reduce the need for paper-based processes, potentially saving trees and reducing waste.
2. If the system is designed to be energy efficient and has a low carbon footprint, it could help reduce the environmental impact of the project.
3. By providing students with access to financial support for higher education, the system could potentially encourage more people to pursue studies and careers in fields related to environmental protection and sustainability.
4. By generating reports on scholarship distribution and utilization, the system could provide data and insights that could be used to inform policy decisions and promote more sustainable practices in higher education.
5. By promoting the use of online platforms and tools, the system could potentially reduce the need for travel and transportation, which could have a positive impact on the environment.

### **6.3 Ethical Aspects**

It's important to consider the ethical aspects of any project, and the Scholarship Monitoring System is no exception. Here are some ethical considerations that we want to keep in mind:

The importance of protecting the personal and financial information of students and administrators that is stored in the system will be emphasized, and appropriate security measures will be implemented in accordance with relevant laws and regulations, such as the General Data Protection Regulation (GDPR) in the EU. The system will aim to distribute scholarships fairly and equitably, based on merit and financial need. Avoidance of bias or discrimination in the review and approval process will be ensured, and all students will be given an equal opportunity to apply and receive scholarships. The operations and decision-making of the system will be made transparent, and an avenue will be provided for students and administrators to voice concerns or complaints. The system will be held accountable for its actions and decisions, and will strive to continuously improve and evaluate its performance. The broader social and environmental impact of its operations will be considered, and the system will aim to contribute to the common good

and promote sustainability. This may involve supporting initiatives that promote access to education or that address social or environmental issues.

#### **6.4 Sustainability Plan**

Here is a sustainability plan for the Scholarship Monitoring System:

1. Continuously review and update the system to ensure that it is meeting the needs of users and is aligned with relevant laws, regulations, and best practices.
2. Monitor and maintain the system to ensure its ongoing performance, security, and reliability.
3. Implement data backup and recovery processes to ensure the integrity and availability of data in the event of a disaster or other unforeseen event.
4. Monitor and track the environmental impact of the system, such as energy consumption and paper usage, and implement measures to reduce this impact where possible.
5. Encourage the use of sustainable practices within the system, such as using online platforms and tools to reduce the need for travel and paper-based processes.
6. Engage with stakeholders, such as students, administrators, and policy makers, to solicit feedback and ideas for improving the sustainability of the system.
7. Continuously evaluate and report on the performance and sustainability of the system, and make improvements as needed.



## **CHAPTER 7**

### **Conclusion and Future Scope**

#### **7.1 Discussion and Conclusion**

The Scholarship Monitoring System is a useful tool for managing the distribution and utilization of scholarships, and has the potential to make a positive impact on students, administrators, and society as a whole.

One of the key benefits of the system is its ability to streamline the scholarship application and management process, reducing the time and effort required to review and approve applications and track payments. This can make it easier for students to access financial support for higher education, and can help administrators to more efficiently manage their scholarship programs.

Another advantage of the system is its ability to provide valuable data and insights on scholarship distribution and utilization, which can inform policy decisions and help to improve the effectiveness of scholarship programs. By tracking student performance and financial need, the system can also help to ensure that scholarships are distributed fairly and equitably.

Overall, the Scholarship Monitoring System represents an important step forward in the management of scholarship programs, and has the potential to make a meaningful difference in the lives of students and the broader community.

#### **7.2 Scope for Further Developments**

Here are some potential areas for further development of the Scholarship Monitoring System:

1. Integration with other systems: The system could be integrated with other applications or platforms, such as student information systems or financial aid systems, to improve efficiency and reduce the need for manual data entry.

2. Mobile application: The system could be developed as a mobile application, allowing students and administrators to access and update information on the go.
3. Advanced reporting and analytics: The system could be enhanced with advanced reporting and analytics capabilities, such as data visualization or predictive analytics, to provide deeper insights on scholarship distribution and utilization.
4. Personalized recommendations: The system could provide personalized recommendations to students based on their interests, goals, and qualifications, helping them to identify and apply for suitable scholarships.
5. Social networking and collaboration: The system could include social networking and collaboration features, such as discussion forums or peer review, to help students connect with each other and share resources and experiences.
6. Improved accessibility: The system could be designed with improved accessibility in mind, to ensure that it is usable by people with disabilities or impairments.

## References

- [1] M. Healey, "Developing the scholarship of teaching in higher education: A discipline-based approach," *Higher Education Research & Development*, vol. 19, no. 2, pp. 169-189, 2000.
- [2] D. Prijayanti, E. U. Artha, and E. R. Arumi, "Web-Based Monitoring Information System for Scholarship Holder," in *Proceedings of the 1st Borobudur International Symposium on Humanities, Economics and Social Sciences (BIS-HESS 2019)*, Atlantis Press, May 2020, pp. 1222-1226.
- [3] M. Maimunah and E. R. Arumi, "Upaya Pengembangan Bakat Kreatifitas Bagi Siswa Smk Melalui Pembuatan E-Book Interaktif," in *Seminar Nasional Hasil Penelitian dan Pengabdian Pada Masyarakat IV Tahun 2019*, pp. 584–590, 2019.
- [4] A. Seidu, "Scholarship fund management system," 2017.
- [5] J. Zhang, K. Burbank, B. Howell, B. Yang, Y. Huang, and R. Adams, "Scholarship Reconsidered And Its Impact On Engineering And Technology Graduate Education," in *2008 Annual Conference & Exposition*, June 2008, pp. 13-1065.
- [6] R. Shanmuga Priya, R. Ramesh, and S. Dhivya, "Advanced Application System for Student Scholarship Using Content Based Filtering Technique," *Journal of Computational and Theoretical Nanoscience*, vol. 18, no. 3, pp. 1038-1042, 2021.

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