



Daffodil
International
University

GLOBAL UNIFINDER

Submitted By

S.M. Rejuan Hosen
(181-35-320)

Dept. of Software Engineering

Supervised By

Tapushe Rabaya Toma
Assistant Professor

Dept. of Software Engineering

A project submitted in partial fulfillment of the requirement for the degree of
Bachelor of Science in Software Engineering

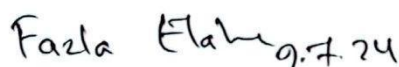
Spring 2024

©All rights reserved by Daffodil International University

APPROVAL

This project titled on “Global Unifinder”, submitted by **S.M. Rejuan Hosen (ID: 181-35-320)** to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

BOARD OF EXAMINERS



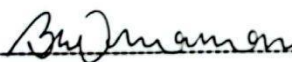
Chairman

Dr. Md. Fazla Elahe
Assistant Professor & Associate Head
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University



Internal Examiner 1

Tapushe Rabaya Toma
Assistant Professor
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University



Internal Examiner 2

Khalid Been Md. Badruzzaman Biplob
Lecturer (Senior Scale)
Department of Software Engineering
Faculty of Science and Information Technology
Daffodil International University



External Examiner

Md. Mostafiz Khan
Managing Director
Tecognize Solutions Limited

DECLARATION

It hereby declare that I have completed this project under the supervision of Tapushe Rabaya Toma, Assistant Professor, Department of Software Engineering, Daffodil International University. It also declares that neither this project nor any portion of it had previously been submitted for a degree.

Rejuan

S.M. Rejuan Hosen
Id: 181-35-320
Dept. of Software Engineering
Daffodil International University

Certified by :



Tapushe Rabaya Toma
Assistant Professor
Dept. of Software Engineering
Daffodil International University

ACKNOWLEDGEMENT

I have taken on this project. Still, it wouldn't have been possible without the generous help from many individuals. I am expressing my appreciation to everyone who helped. I am particularly grateful to Daffodil International University for its guidance and continuous support from Tapushe Rabaya Toma, Assistant Professor. Their assistance was crucial in gathering the necessary information for this project and completing it. I also want to thank our parents, batchmates, and the members of DIU for their encouragement and cooperation, which played a vital role in finishing this work. A special acknowledgment goes to those in the accounting industry who gave me their time and attention. Lastly, my appreciation extends to everyone else who generously offered their skills and support along the way.

ABSTRACT

Global Unifinder is a web-based application which is for higher-study students. Here, in this system, students can easily choose their subject and select a university after submitting their basic information. So, they can not lose their important schedule. An attempt is made to include fresh thoughts in the project. The Global Unifinder web application is designed to simplify the process of searching for and evaluating higher education institutions worldwide. This project aims to create a comprehensive platform that aggregates data from various universities, allowing users to easily explore and compare educational opportunities based on their specific needs and preferences. Key features of the application include an intuitive search engine, advanced filtering options, and detailed university profiles that encompass program offerings, admission criteria, tuition fees, and campus facilities. The platform also integrates interactive maps and user reviews to provide a holistic view of each institution. By utilizing real-time data updates and personalized recommendation algorithms, Global Unifinder seeks to enhance the user experience and support informed decision-making for prospective students and academic advisors. This documentation outlines the project's objectives, technical specifications, system architecture, and implementation strategy, offering a comprehensive overview of its development and functionality.

TABLE OF CONTENTS

APPROVAL.....	ii
DECLARATION.....	iii
ACKNOWLEDGEMENT.....	iv
ABSTRACT.....	v
CHAPTER 1.....	1-5
Introduction.....	1
1.1 Overview	1
1.2 Objectives.....	1
1.3 Background.....	1
1.3.1 Advantages.....	1
1.3.2 Goals.....	1
1.3.3 System Stakeholders.....	2
1.4 Recommend System Model.....	2
1.4.1 Waterfall-Model.....	2
1.4.2 Use of Waterfall	2-3
1.5 Project Schedule.....	3
1.5.1 Gantt Chart.....	3-4
1.5.2 WBS Planning and Development Phase.....	4-5
1.6 Similiar Work.....	5
1.7 Problem Statements.....	5
1.8 Recommend Solution.....	5
CHAPTER 2.....	6-7
Software Requirements Specification.....	6
2.1 SRS Overview.....	6
2.2 Non-Functional Requirements.....	6
2.3 Functional Requirements.....	6
2.4 Specification of Software Requirements.....	7
CHAPTER 3.....	8-17
3.1 Use Case Diagram.....	8-9
3.2 Activity Diagram.....	10-12
3.3 ER Diagram.....	13-15
3.4 Sequence Diagram.....	16-17
CHAPTER 4.....	18
4.1 Technologies for User Interface.....	18
4.2 Tools and Platforms for Implementation	18

CHAPTER 5.....	19-27
User Interface.....	19-24
Community Guidelines.....	25
Admin Dashboard.....	25
Admin Country List.....	26
Admin University List.....	26
Admin University Add.....	27
 CHAPTER 6.....	 28-29
6.1 Software Testing	28-29
 CHAPTER 7.....	 30
7.1 Restrictions.....	30
7.2 Difficulties and Acquirements.....	30
7.3 Future Plans.....	30
 References.....	 31

CHAPTER 1

INTRODUCTION

1.1 Overview

In this modern world, there are many problems in our life. Accurate university selection is one of the problems. This project Global Unifinder is a Web-based university finder for worldwide students. In this system, students can easily choose their subject and select a university after submitting their Basic Information. So, they can not lose their important schedule.

1.2 Objectives

The major purpose of this project is for students can easily find their chosen subject and select a good university. Otherwise, they are hampered by their admission time. We planned to develop that web application to assist.

1.3 Background

We will be working using a web application as our background. Human resources will handle any other additional tasks.

1.3.1 Advantages

This website does good work by maintaining accuracy, enhancing efficiency, and saving time. Also, students can quickly show their better subject and University. For students, it saves time from going too far away from all universities and also they can view their Admission status then and there.

1.3.2 Goals

Realizing the admission vision and making it simple for any student to find an international university are the major goals of the system. Some of the goals are listed below:

- Manage all details of students who select their Basic Information and send appropriate details about the subject and university.
- Getting all the information about international universities.

1.3.3 System Stakeholders

This system contains three types of stakeholders:

- 1) The project's development team.
- 2) System Administrators.
- 3) Users.

1.4 Recommend System Model

What developers will accomplish for this project is explained by the recommended system. What is the purpose of the project, and apart from the items that are already there, what is new? and their plan for executing this? The project's explanation is provided by the recommended system.

1.4.1 Waterfall-Model

The waterfall model is the recommended system model for our project because this project has fixed requirements.

1.4.2 Use of Waterfall

1. Create a real-life plan to address difficulties.
2. Users are encouraged to gather and update their requirements to get a competitive advantage. Face-to-face communication is a highly effective method of sending and receiving data within a team.
3. Focus on regularly releasing functional software.
4. Projects should be developed around inspired people. Ensure that they have the assistance and space they require.
5. The greatest designs are often produced by self-organized teams. Agility can be improved by continuously focusing on high-quality technological design.
6. It is vital to maintain simplicity, which is regarded as the art of optimizing the work that is not done.

7. The team focuses on improving their effectiveness regularly and modifies their conduct consequently.
8. The system was tested regularly by monitoring staff.

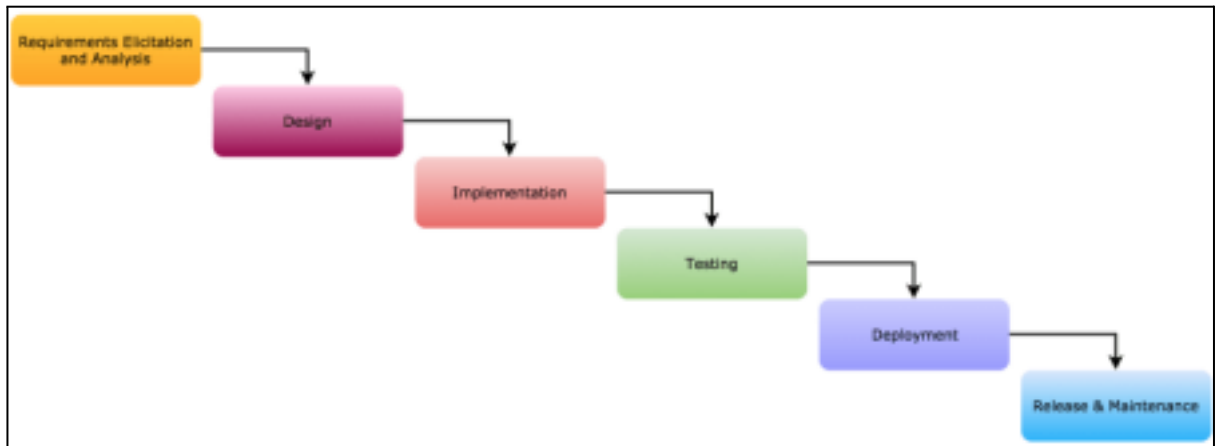


Figure 1: Recommend System Model

1.5 Project Schedule

A schedule, as used in project management, is a list of the deliverables, activities, and milestones for a project, typically together with the planned start and end dates. Project portfolio management and project planning are two areas of project management that frequently use schedules.

1.5.1 Gantt Chart

A Gantt chart is made up of a grid of horizontal lines that indicates how much work or output has been completed during a certain period relative to the quantity scheduled for that period.

Activity	7/1/24	17/1/24	2/2/24	12/3/24	25/4/24	20/5/24
Search project						
Finalizing & allocating						
System design						
Program design						
Program coding						
Integrated system						
Acceptance test						

Figure 2: Gantt chart

1.5.2 WBS Planning and Development Phase

1. Project planning phase [07 January 2024 – 17 January 2024]
2. Analyzing the project [07 January 2024 – 17 January 2024]
3. Gather necessary information [10 January 2024 – 20 January 2024]
 - Generate ideas
 - Discussion
 - Review
 - Analysis of Implementation
4. Design period [02 February 2024 – 17 March 2024]
 - Design of the system
 - Design and Implement Databases
 - User Interface (UI) Design

5. Development period [12 March 2024 – 20 May 2024]

- Module for User
- Individuals

6. System testing [20 May 2024 – 25 May 2024]

- Plan for testing
- Sample Test Case
- Execute the test

1.6 Similar Work

There are many different websites available to help students find international universities. But they have slight usability problems. As of my last update, Bangladesh does not have a widely known, dedicated international university finder application specifically tailored for Bangladeshi students. However, several general resources and platforms can help students in Bangladesh find international universities. If anyone uses our app to select their university then they will get accurate results. So, this web application will solve all of the issues and be more user-friendly than existing general resources and platforms.

1.7 Problem Statements

1. There are some bugs.
2. Have no live chat option.

1.8 Recommend Solution

The issues with the current system were visible to us. So, we will develop it and solve all the issues:

- Friendly User Interface (UI) design.
- Support Section.

CHAPTER 2

SOFTWARE REQUIREMENTS SPECIFICATION

2.1 SRS Overview

Software requirements specification (SRS) is a comprehensive document that defines the intended use and environment for software that is presently under development. The SRS provides detailed descriptions of what the software will do and how it is going to perform. Requirement prioritization is a technique used in software product management to choose which software function package candidates (high, medium, and low) to include in a certain release. To reduce risk during development, needs are prioritized in order of significance, with the highest-risk or most critical ones executed earliest.

2.2 Non-Functional Requirements

Efficiency: The system failures can handled accurately.

Accessibility: This application will be significantly more user interface-friendly.

Dependability.

2.3 Functional Requirements

View Site: Without login, users have the option to visit all the websites.

Input: Users can input their info on Basic Information.

Submit: Users can input their Language Skills information.

2.4 Specification of Software Requirements

SRS Id	Requirements name	Details	F or N	Priority
SRS - 001	Login	User/admin sign in with appropriate ID and password	Functional	High
SRS - 002	Choose country	The user/admin chooses and selects the country	Functional	High
SRS - 003	Match result	The user or admin sees and checks the result	Functional	High
SRS - 004	Choose program	The user selects the program	Functional	High
SRS - 005	Match result & select university	The user selects the University	Functional	High
SRS -006	Choose subject	The user selects the best subject.	Functional	High

CHAPTER 3

ANALYSIS OF SYSTEM

3.1 Use Case Diagram

A use case diagram, also known as a UML (Unified Modeling Language) diagram, illustrates how users, also known as "actors," interact with a system to accomplish specific objectives or use cases. It provides a high-level picture of the system's operation from the end-user's perspective which helps in understanding what the system is trying to achieve.

Overview

1. **Actors:** Actors are entities that interact with the system. Actors may be external entities, other systems, or users.
 - **Representation:** Stick figures or rectangles.
2. **Use Cases:** Specific functions or features of the system that are of interest to the actors. They describe what the system should do in response to interactions.
 - **Representation:** Ovals or ellipses.
3. **System Boundary:** The boundary that separates the system from its external environment.
 - **Representation:** A rectangle enclosing use cases, often with the system name labeled outside it.
4. **Relationships:**
 - **Associations:** Lines that connect actors to use cases and represent interactions.
 - **Includes:** Relationships indicate that a particular use case always contains the behavior of a different one (shown by a dashed arrow labeled "include").

- **Extends:** Relationships show how one use case may extend another's behavior under specific conditions (shown by a dashed arrow using the term "extend").
- **Generalizations:** Relationships where one actor is a specialized version of another or one use case is a customized form of another (a solid line with an empty triangle).

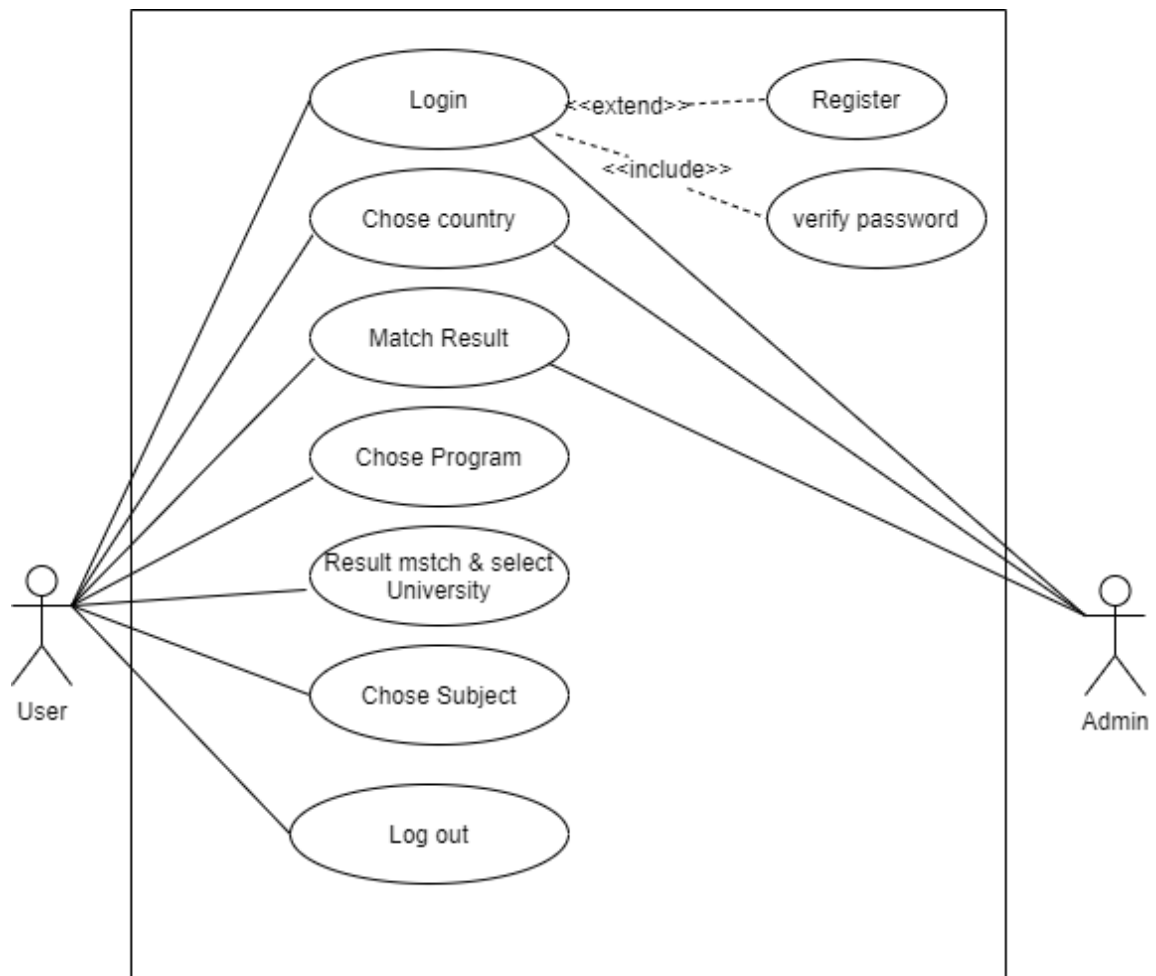


Figure 1: Login Diagram

3.2 Activity Diagram

An Activity Diagram is a type of UML (Unified Modeling Language) diagram used to model the flow of activities or processes within a system. It provides a visual representation of workflows and business processes, detailing how different activities interact with each other. Activity Diagrams are valuable for understanding complex processes, designing workflows, and analyzing business procedures. They help in visualizing the sequence of activities, identifying bottlenecks, and improving overall efficiency in processes.

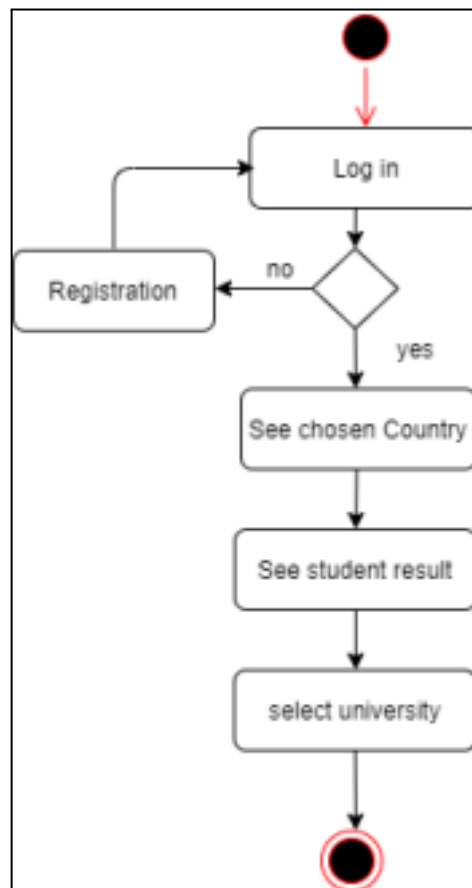


Figure 1: Login Diagram

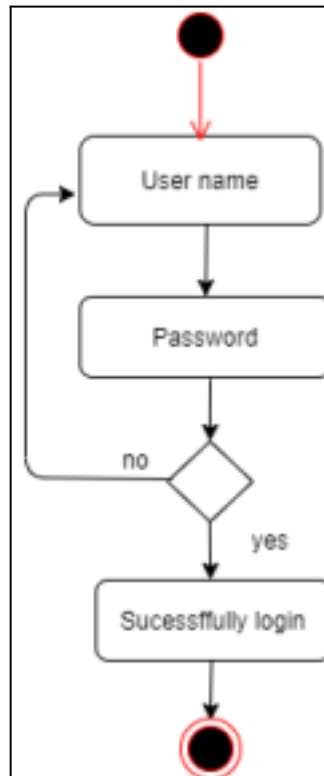


Figure 2: Login Successful Diagram

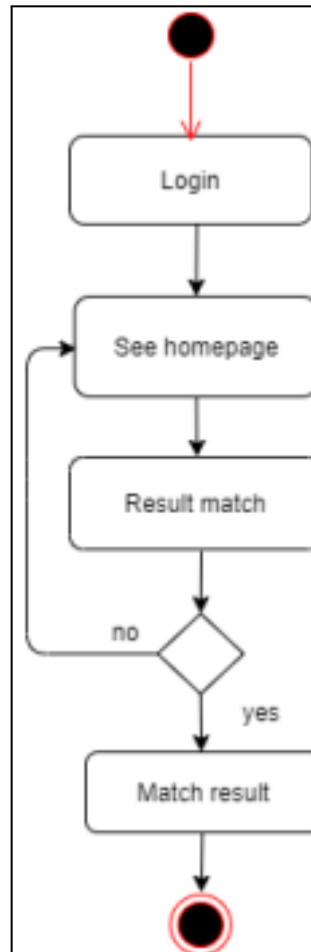


Figure 3: Home Page Diagram

3.3 ER Diagram

An entity-relationship diagram shows the relationships between the entities in a system visually. This is useful for creating and modeling a database's data structure. It represents entities (which can be objects, concepts, or things), the relationships between them, and the attributes that define each entity.

Overview

1. **Entities:** Entities are objects or concepts that can be distinctly identified within the system. They frequently function similarly to relational database tables.
 - **Representation:** Entities are represented by rectangles. The label of the entity appears on each rectangle.
2. **Attributes:** Attributes are properties or characteristics of entities. They describe the details or specifics of an entity.
 - **Representation:** Attributes are represented by ovals connected to their respective entity rectangles.
3. **Relationships:** Relationships show how entities interact or are related to each other. They define the associations between entities.
 - **Representation:** Relationships are represented by diamonds connected to the entities they relate to. The lines connecting entities to relationships often include cardinality indicators.
4. **Cardinality:** This defines the number of instances of one entity that can or must be associated with instances of another entity. Cardinalities include one-to-one, one-to-many, and many-to-many.
 - **Representation:** Noted with symbols or annotations near the relationship lines.
5. **Primary Key:** A primary key is an attribute or set of attributes that uniquely identifies every instance of an entity.
 - **Representation:** Entity rectangles generally include underlined primary keys within them.
6. **Foreign Key:** A foreign key is an attribute in one entity that establishes a relationship with another entity by referencing its primary key.
 - **Representation:** Foreign keys are implied through relationships rather than explicitly shown.

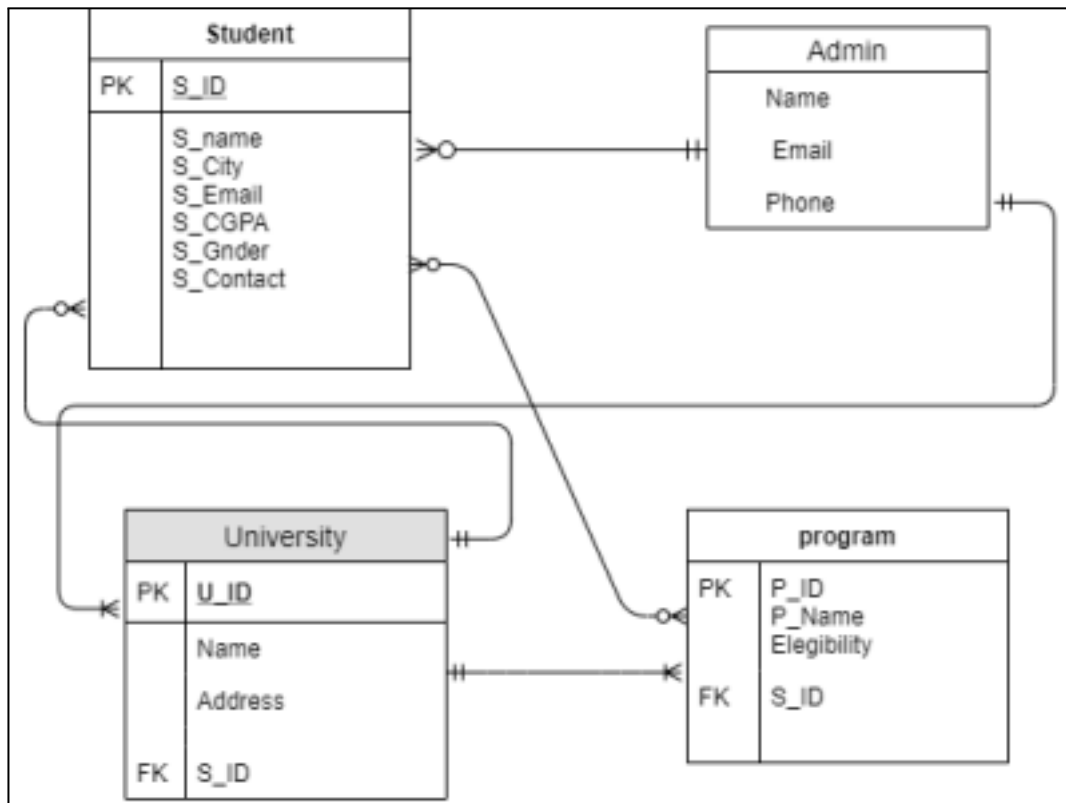


Figure 1: ER Diagram

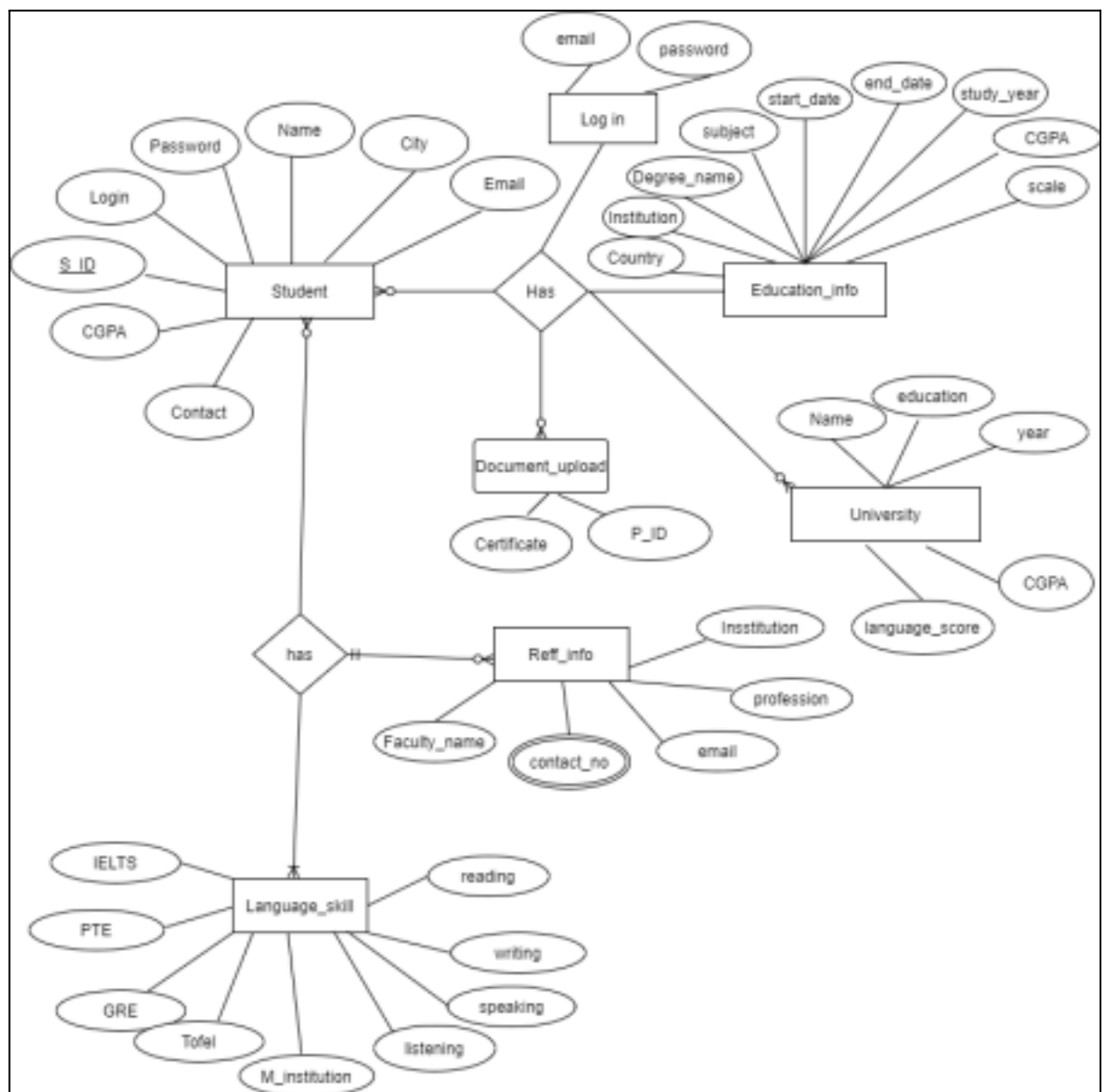


Figure 2: ER Diagram

3.4 Sequence Diagram

A Sequence Diagram is a sort of UML (Unified Modeling Language) diagram that describes how objects interact in a specific sequence across time. It illustrates the sequence of messages exchanged between objects or components to achieve a specific functionality or process. Sequence Diagrams are especially useful for understanding and designing the dynamic behavior of a system.

Overview

1. **Objects:** Represent entities involved in the interaction, shown as vertical dashed lines.
2. **Lifelines:** Vertical dashed lines extending downward from each object. They represent the object's existence and show the passage of time during the interaction.
3. **Messages:** Arrows between lifelines indicating communication, with synchronous messages denoting waiting for responses and asynchronous messages representing non-blocking communication.
 - **Synchronous Messages:** Solid arrows with a filled arrowhead, where the sender waits for a response.
 - **Asynchronous Messages:** Solid arrows with an open arrowhead, where the sender does not wait for a response.
 - **Return Messages:** Dashed arrows showing responses from receivers back to the sender.
4. **Activation Bars:** Highlight the periods when objects are active and processing.
5. **Fragments:** Sections like alternatives, loops, or options that handle different scenarios or conditions.
6. **Comments:** Annotations or notes that provide additional information or clarify specific aspects of the diagram.

The diagram helps visualize and analyze the flow of operations and interactions, making it easier to understand the dynamic behavior and design of a system.

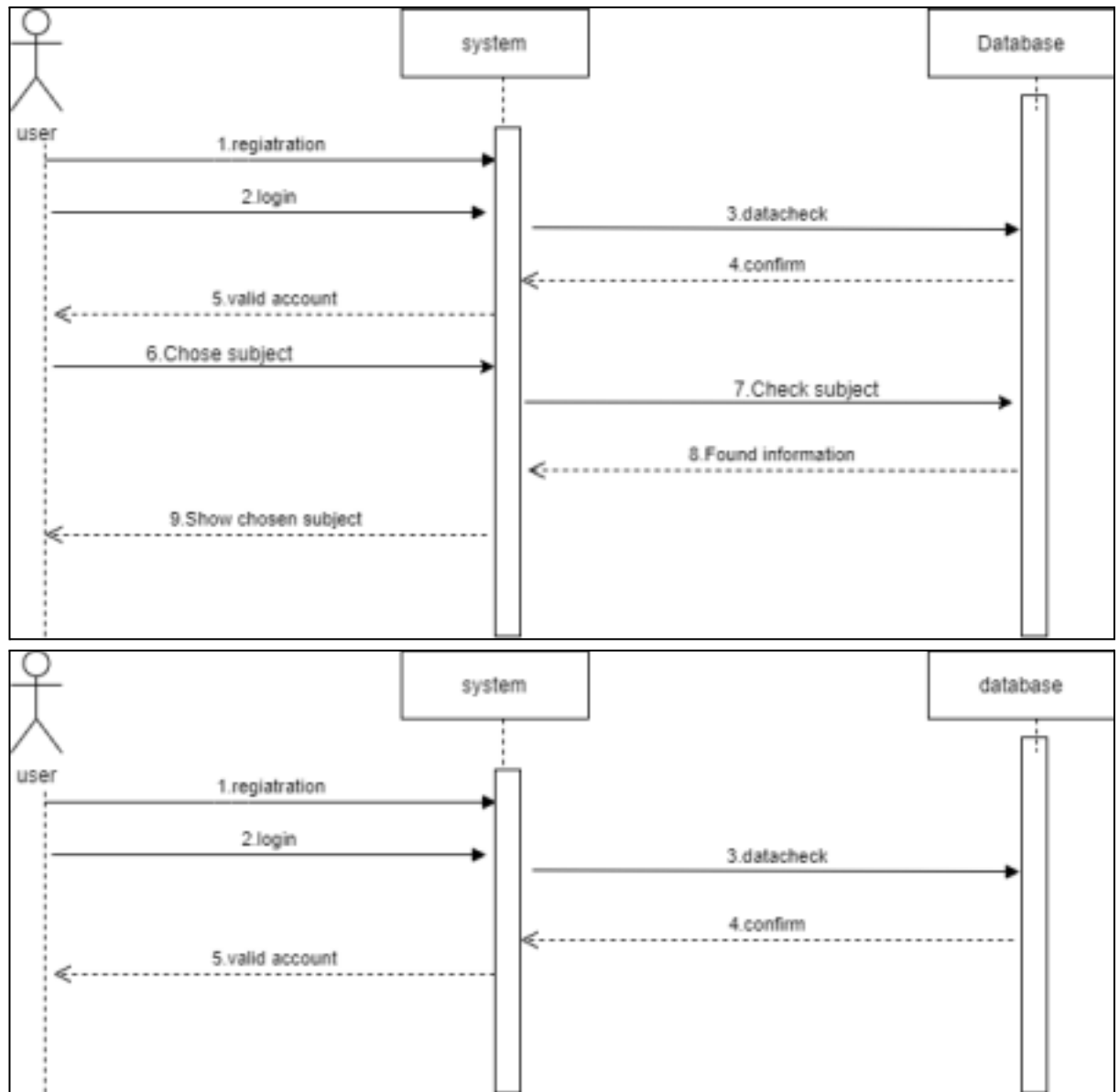


Figure 1: Sequence Diagram

CHAPTER 4

DEVELOPMENT TOOLS AND TECHNOLOGIES

4.1 Technologies for User Interface

The following tools and technologies are in use:

HTML: Hypertext Markup Language is known as HTML. It specifies the layout of the website so that browsers can understand what to display.

CSS: The abbreviation CSS means Cascading Style Sheet. CSS allows web designers to change web fonts, colors, animations, and transitions. They are what improve the webpage.

Bootstrap: A framework called Bootstrap is used to create user interfaces with HTML, CSS, and JavaScript.

Laravel: An open-source web framework for building web applications using the PHP programming language. Taylor Orwell is known for creating Laravel.

The framework follows the model-view-controller architectural pattern, making it easier for developers to organize and manage their code.

4.2 Tools and Platforms for Implementation

PHP Storm has been utilized.

With many features and tools to make development easier, PHPStorm is a powerful environment for PHP programming. Effective use of PHPStorm requires experimenting with its extensive feature set and customizing it to your specific development process. Because of its integrated tools and integrations, the IDE is a full environment for PHP and web development. Based on the IntelliJ IDEA platform from JetBrains, PHPStorm is a cross-platform, paid integrated development environment (IDE) specifically made for PHP. An extensive PHP, HTML, and JavaScript editor is available.

CHAPTER 5

USER INTERFACE

Home page

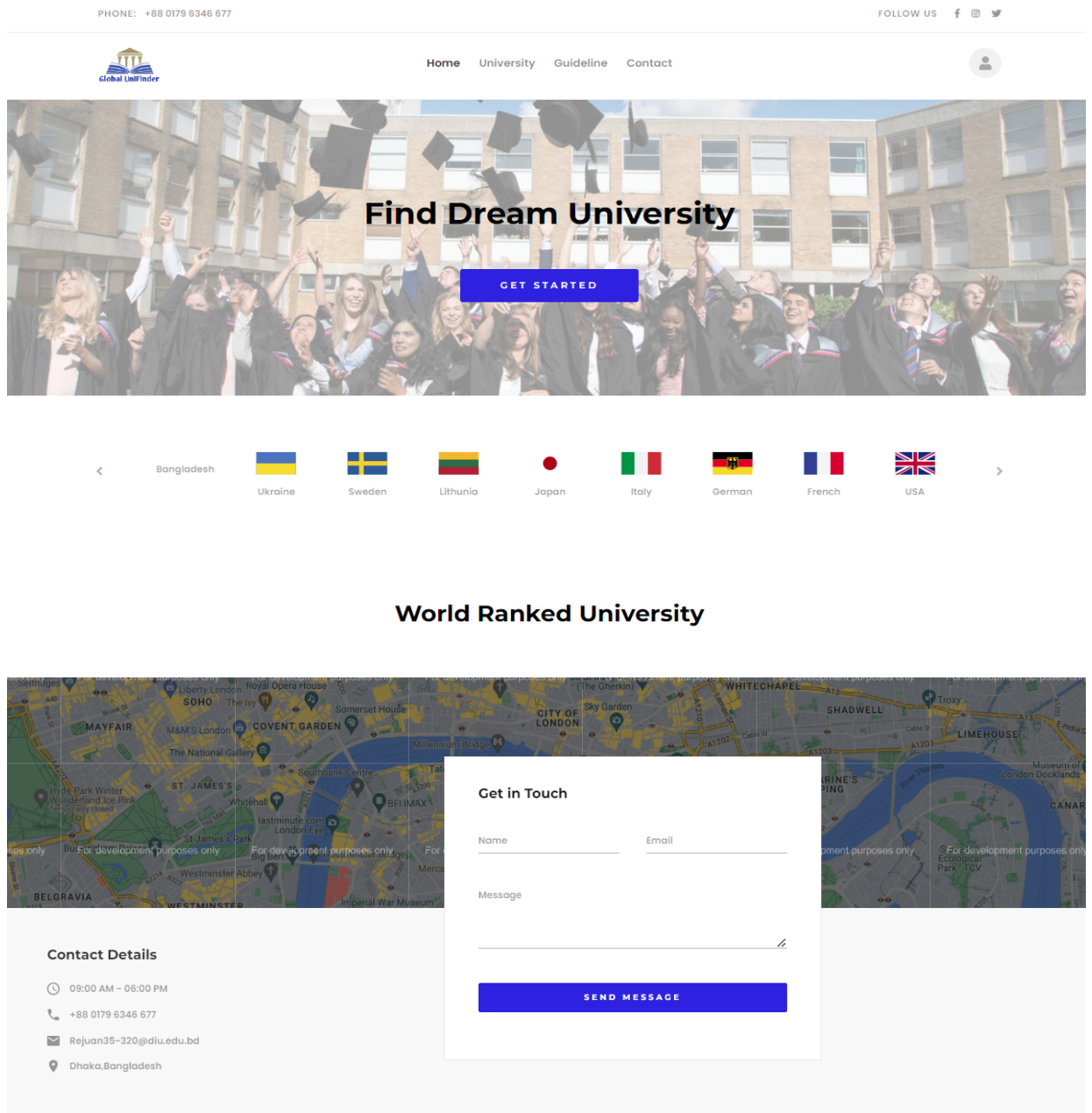


Figure 1: User Interface for Home Page

Login page

Login

E-Mail Address

Password

Login

Have no account ? [Register.](#)

Forgot password? [Reset now.](#)

Figure 2: User Interface for Login page

Registration page

Register

Name

E-Mail Address

Phone Number

Password

Confirm Password

Register

Already have an account ? [Login.](#)

Figure 3: User Interface for Registration page

Basic information

PHONE: +88 0179 6346 677

FOLLOW US   



[Home](#) [University](#) [Guideline](#) [Contact](#) [Profile](#) [Logout](#)



Basic Information

Name

rejuan

Gender

Select Gender

Blood group

Select blood group

Date of birth

mm/dd/yyyy

Address

Country

Select Country

City

Enter your city

State

Enter your state

Contact

Enter your contact number

Language Skill

Select language

Select Language

Education Info.

Country

Select Country

Institution

Enter institution name

Degree

Enter degree name

Subject

Enter subject name

Start date

mm/dd/yyyy

End date

mm/dd/yyyy

Study Duration

Enter study duration

CGPA Scale

Enter CGPA scale

CGPA

Enter CGPA

Figure 4: User Interface for Basic Information

Suggested universities

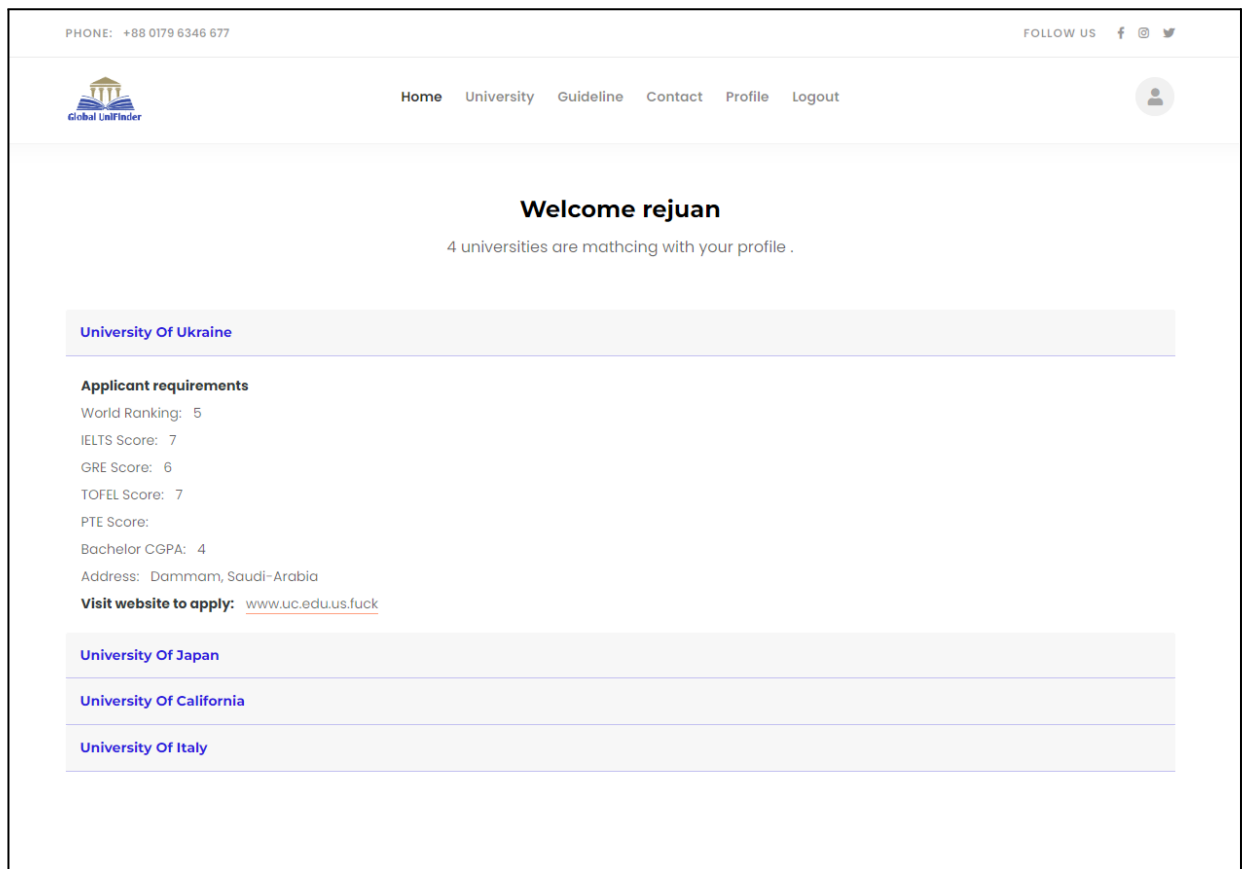


Figure 5: UI for Suggested universities

Contact with us

[Home](#)
[University](#)
[Guideline](#)
[Contact](#)

Get in Touch

SEND MESSAGE

Contact Details

09:00 AM - 06:00 PM

+88 0179 6346 677

Rejuan35-320@diu.edu.bd

Dhaka, Bangladesh

Global Unifinder

Description

When a student enter this website then first he/she can show home page. After you can choose any option when you view other categories. Like as University Guideline, contact etc. First of all a student very important for him/her registration in this website. After registration he/she can fulfill him/her all personal requirements then he/she can choose prefer subject and University. If any query he/she contact us by phone or email or message.

About Us

- [Home](#)
- [University](#)
- [Guideline](#)
- [Contact us](#)
- [Privacy](#)

Figure 6: UI for Contact with us

Community Guidelines

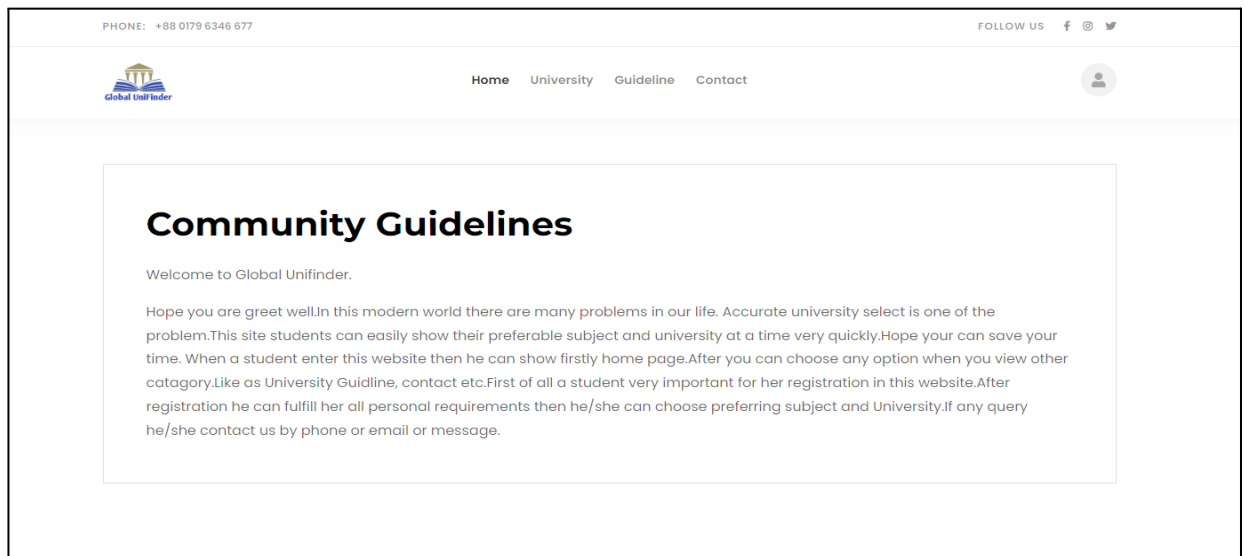


Figure 7: UI for Community guidelines page

Admin dashboard



Figure 8: UI for Admin dashboard page

Admin country list

Country List				New Country
SL	Name	Flag	Action	
1	Ukraine		Edit	Delete
2	Sweden		Edit	Delete
3	Lithuania		Edit	Delete
4	Japan		Edit	Delete
5	Italy		Edit	Delete
6	German		Edit	Delete
7	French		Edit	Delete
8	USA		Edit	Delete

Figure 9: UI for Admin country list page

Admin all universities list

All University of Japan								
SL	Name	World Rank	IELTS	GRE	TOFEL	CGPA	Address	Website
1	University Of Japan	5022	5	3	4	3	Tokyo, Japan	www.ju.edu.jp

Figure 10: UI for Admin University list page

Admin university add

Make New University

Choose Country

Select Country

University Name

Enter University Name

University ranking

Enter World Ranking

IELTS Score

Enter IELTS Score

GRE Score

Enter GRE Score

TOFEL Score

Enter TOFEL Score

PTE Score

Enter PTE Score

Bachelor CGPA

Enter Bachelor CGPA

Address

Enter Address

Website Link

Enter Website Link

Choose Image

Choose File

No file chosen

SAVE UNIVERSITY

Figure 11: UI for Admin University add page

CHAPTER 6

SYSTEM TESTING

6.1 Software Testing

Software testing is a process used to evaluate and verify that a software application or system performs as intended, meets the specified requirements, and is free from defects. The goal is to ensure that the software is reliable, functional, and of high quality before it is released to users.

The test plan aims to define the specific techniques used during the testing process and to show how the system will be tested. The test data, the subject under test, the anticipated result, and the actual input are all identified. One of the required papers for the majority of software engineering projects is the test plan. The lack of a test strategy in a project indicates a low-quality system that was created. This might not satisfy the user and doesn't meet their requirements. immediately as the requirements are known, the test strategy must be defined. Sample data and extreme conditions will be used to test the system's ability to handle input and output functions. Overloaded situations will be used to determine how the system responds, as this will directly slow down the system's behavior in an extreme or failure scenario.

Test Case No 1

Test Scenario ID: Login-1		Test case ID: Login-1A		
Test Case Description: Login positive test case		Test Priority: High		
Pre-Requisite: A valid user account		Post-Requisite: NA		
Test Designed by: S.M. Rejuan Hosen		Test Designed Date: 02 Feb 2024		
Test Execution Date: 25 May 2024				
Test Execution Step:				
S.No	Action	Inputs	Test Result	Notes
1	Launch application	http://127.0.0.1:8000/	Pass	Launch successful
2	Enter the correct Email and Password and click the login button	Email id: userxyz@gmail.com Password: *****	Pass	Login successful
Problem scenario: Nothing will appear if we enter the wrong information.				

CHAPTER 7

SUMMARY OF PROJECT

7.1 Restrictions

- Graph visualization is not supported by this system.

7.2 Difficulties and Acquirements

Difficulties

- Acquire knowledge of new technologies and environment.
- Budget and limitations on time.

Acquirements

- Acquire new technology.
- Finished a project that was ready for production.

7.3 Future Plans

Although the application has been built well, future development will contain several significant modifications, including as-

- A payment gateway can be integrated.
- Visa Processing.
- Mobile Apps.
- Real-time communication media like chat.
- Send notification to the students.

References:

1. Doe, J., and Chan, M. O. (Year). *Yii 2 and PHP Web Application Development*. Publisher.
2. Preece, J., Rogers, Y., & Sharp, D. (Year). *Interaction Design: Beyond Human-Computer Interaction*. Publisher.
3. Google Maps API Documentation. (n.d.). Retrieved from <https://developers.google.com/maps/documentation>
4. ReactJS Documentation. (n.d.). Retrieved from <https://reactjs.org/docs/getting-started.html>
5. Krug, S. (Year). *Don't Make Me Think: A Common Sense Approach to Web Usability*. Publisher.
6. World University Rankings Data. (n.d.). Retrieved from <https://www.timeshighereducation.com/world-university-rankings>
7. Web Content Accessibility Guidelines (WCAG). (n.d.). Retrieved from <https://www.w3.org/WAI/WCAG21/quickref/>