8/7/2023

SRS Document

Core Web-Development FA part 1

Emmanuel Januarie, Hlumelo Faltein Ewan Booth
TRI TECH

1. Introduction

CTU-Buddy is a revolutionary educational system created exclusively for CTU students. This platform is designed to augment the learning journey by offering many features that empower students, enhance their interactions, and streamline their academic experiences.

1.1 Purpose

The primary purpose of CTU-Buddy is to provide CTU students with a comprehensive and interactive online hub that facilitates efficient scheduling, fosters academic collaboration, encourages resource sharing, and promotes effective communication between students and the university administration.

1.2 Intended Audience

CTU-Buddy is crafted with the needs of CTU students, faculty members, and administrators in mind. It caters to students, enabling them to manage their schedules, participate in meaningful discussions, access shared educational materials, and engage with their peers and the university community.

1.3 Intended Use

CTU-Buddy is intended to be used as a central platform where students can view and manage their weekly schedules, engage in academic discussions to exchange ideas, share valuable educational resources, learn about the system's purpose and development team, and communicate effectively with the university administration.

1.4 Product Scope

The scope of CTU-Buddy encompasses a range of interactive pages:

- Home: Provides a captivating overview of CTU-Buddy's features and purpose.
- Timetable: Enables students to efficiently manage their schedules with an aesthetically pleasing timetable.
- Discussion: Offers a virtual space for academic conversations and knowledge sharing.
- Share Resources: Facilitates the sharing and downloading of educational materials.
- About Us: Provides insights into CTU-Buddy's mission, and the team behind its creation.
- Contact Us: Offers a means for users to connect with the administration and provide feedback.

1.5 Definitions and Acronyms

Creativity Technology University-Buddy: The educational system designed to enhance the learning experience for CTU students.

1.6 Group Members roles and responsibilities

- Emmauel Januarie:
    - Overseeing the project. Delegating tasks and sectors of work. Proof-reading of all code and documents alike.
    - Front-end: Creating engaging user interface. Designing of Home page, Resources page, Contact Us.
    - Documentation: System requirements section for the SRS (Software Requirements Specifications) document.
    - Researcher for the direction the overall theme and design for Webpage alongside necessary data to be displayed such as student subject's campus location etc.
- Ewan Booth:
    - Front-end: Partial contributions towards the Discussion page.
    - Documentation: The Introduction section for the SRS document.

- Hlumelo Faltein:
    - Front-end: Part taking in the coding of the Timetable page, About Us page along with creating the Overall Description sector of the SRS document.
    - Communications medium among group members
    - Documentation: Overall Description section for the SRS document.

2 Overall Description

CTU-Buddy intends to improve students' academic experience, foster a sense of community, and facilitate seamless communication between students and the educational institution.

2.1 Product Description:

CTU-Buddy is an interactive and comprehensive educational system designed for CTU Training Solutions (CTU) students. The website serves as a central main page, offering various pages with specific functionalities to enhance the learning experience for students. It provides an appealing and engaging interface through clear imagery, links, videos, navigational tabs, and other helpful webpage functionalities to create an immersive experience for users.

The key pages included in CTU-Buddy are:

Home: The main page highlights relevant information about the system, its key features, and captivating informative elements.

Timetable: A user-friendly and aesthetically pleasing timetable displaying students' weekly schedules using HTML tables and CSS.

Discussion: A platform for students to engage in academic discussions and exchange ideas with peers.

Share Resources: A page allowing students to upload and share educational resources in PDF format, featuring categorization and search functionality.

About Us: Providing insights into the purpose, vision, mission, and the team behind the development of CTU-Buddy.

Contact Us: Integrating a contact form for inquiries, suggestions, and feedback, along with a map highlighting the CTU campus location.

2.2 User Needs:

CTU-Buddy aims to fulfill the following user needs:

1. Access to an organized and user-friendly timetable for effective schedule management.
2. An interactive platform for academic discussions and knowledge sharing.
3. Convenient access to shared educational resources for offline use.
4. Insights into the purpose, vision, and mission of CTU-Buddy, fostering a sense of connection and trust.
5. A seamless communication channel to submit inquiries, suggestions, or feedback.

2.3 Assumptions and Dependencies:

CTU-Buddy assumes that users have access to internet-enabled devices to utilize the website's functionalities.

Users are expected to adhere to the platform's guidelines and policies, promoting a positive and respectful environment for discussions and resource sharing.

The website's functionalities depend on reliable internet connectivity and secure data storage for resource sharing.

You must access legitimate student accounts for honest retrieval of student data.

2.4 Problem Statement:

The current challenges faced by CTU students include the lack of a centralized platform for managing their schedules effectively, limited opportunities for academic discussions and resource sharing, and inadequate channels for providing feedback or making inquiries to the university. Miscommunication among peers and higher staff alike.

2.5 Expectation of the Project:

The CTU-Buddy project aims to address these challenges and create a comprehensive and interactive website that enhances the learning experience for students. The expectation is to develop a user-friendly, visually appealing, and responsive website that fulfills the identified user needs. The project team aims to create an immersive home page, an aesthetically pleasing Timetable page, an engaging Discussion platform, a secure and user-friendly Share Resources page, an informative About Us page, and an efficient Contact Us page with a map for visual reference.

Software Requirements Specifications (SRS) Document

3 System features and Requirements

3.1 Functional Requirements

Functional Requirements is a detailed guide that explains how the software works and its useful features, which provides clarity to the software user. This document provides an unclouded vision of what our software strives for.

This document (FRD) provides a mutual understanding of how the system operates between various stakeholders.

The table below gives a detailed foundation of our website and what it will contain:

Requirement ID	Requirement Statement	Must/Want	Comments
FR001	The website will contain a “Home” page that displays the importance of CTU- Buddy and CTU itself	Must	Display some pictures and videos regarding student life, and student events.
FR002	The website's homepage contains relevant information regarding CTU – Buddy, by highlighting the key prominent features.	Must	The navigation bar is displayed in the footer section.
FR003	The website must have a page called	Must	Obtained timetables from students for this

	"Timetable," where students can review their timetables for class and scheduled lectures.		webpage. An additional feature to this web page is to add a filtering tab, that will distinguish between the courses and semesters.
FR004	The website's timetable page will display the date, time, module, and days of the week.	Must	
FR005	The website will contain a "About us" page, which will provide valuable insights regarding the team behind the fabrication of "CTU- Buddy."	Must	
FR006	The About us page contains information about CTU-Buddy's purpose, vision, mission, and the individuals who created the website.	Must	
FR007	The website will contain a "Contact us	Must	

	“page, which will provide a contact form for the users.		
FR008	The Contact us page will enable users to submit enquiries, suggestions, or feedback. There must be a map that displays the location of the CTU campus.	Must	
FR009	The website will contain a page called “Share Resources,” which will allow students to upload and share educational resources (in PDF format)	Must	
FR010	The Share Resources page will contain features to download the uploaded pdf documents. The page must include a feature to upload, categorize and search.	Must	A filter feature will be added to categorize between the uploaded documents.

FR011	The website will contain a page called “Discussion,” which will allow students to involve in collaborative learning (Posting questions and receiving responses)	Must	
FR012	The Discussion page will contain features such as threaded discussions, user profiles and moderation tools.	Must	Each student should have their own profile and username, moderation tool is based on admin privileges to remove flagged users (users that have been reported) or foul language used in the chat.
FR013	The website can be used in any mode (Mobile mode and desktop mode)		

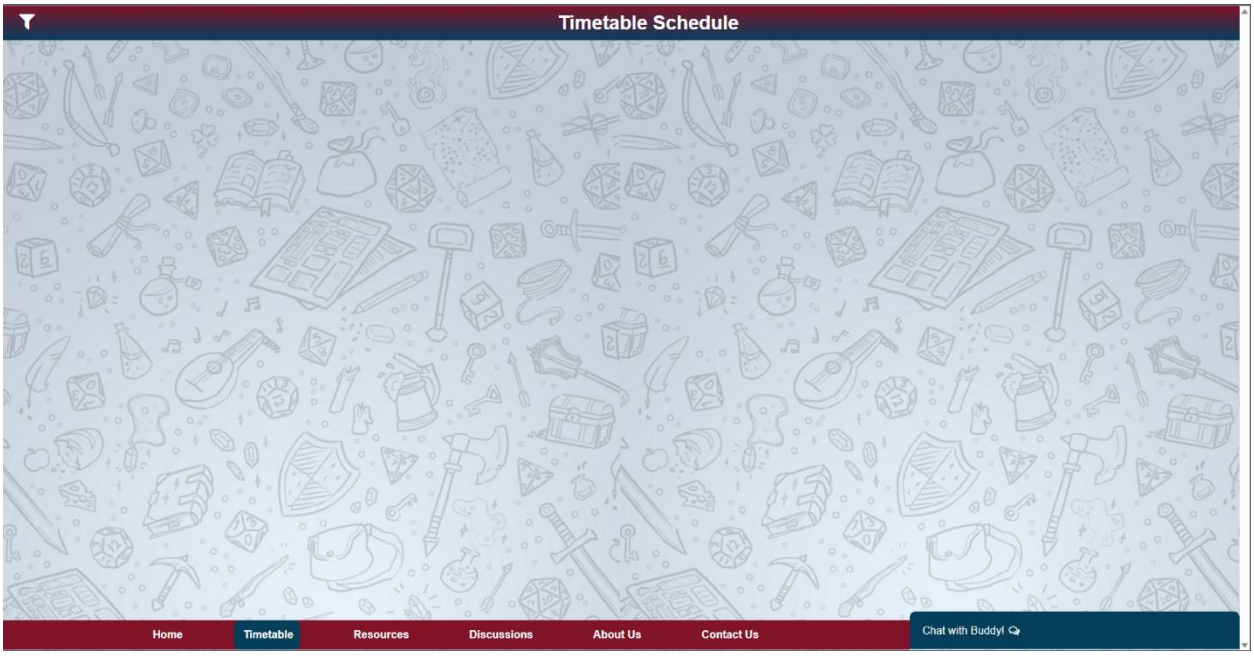
3.2 External Interface Requirements

3.2.1 User Interfaces

Home Page

The home page provides a simplistic design for navigation, contains a current events tab to display events. Chatbot system for additional questions. A video to display student life at CTU. Contains a button "load more "to display more information regarding student life.

Timetable page



The Timetable page contains a navigation bar in the footer that is constant a filter button(top left corner of the page), that when click provides a drop-down menu to provide more courses(figure 1a). When clicking on a course it provides the selected timetable for that course(figure 1b).

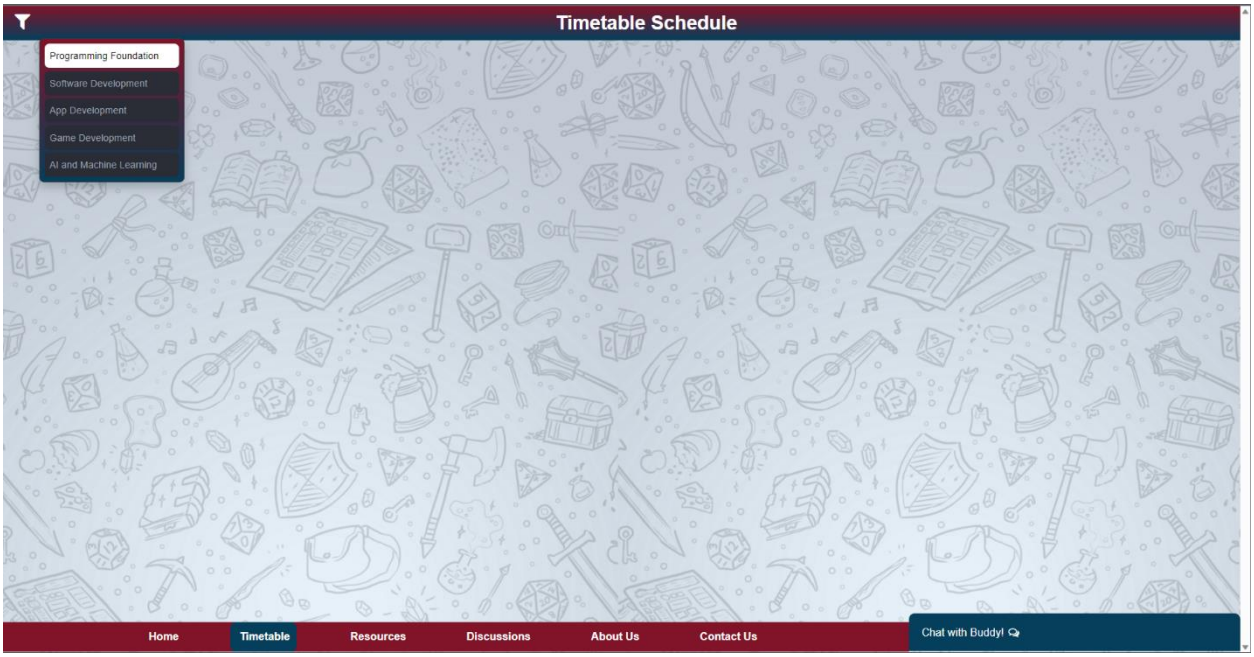


Figure 1a

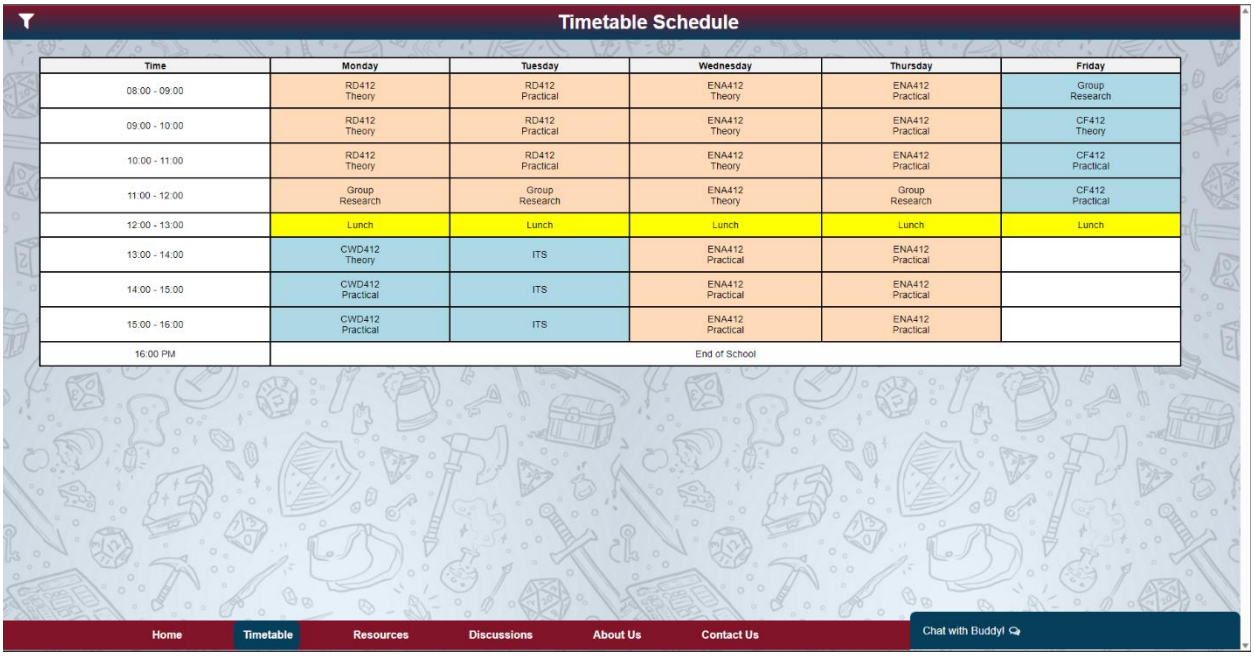
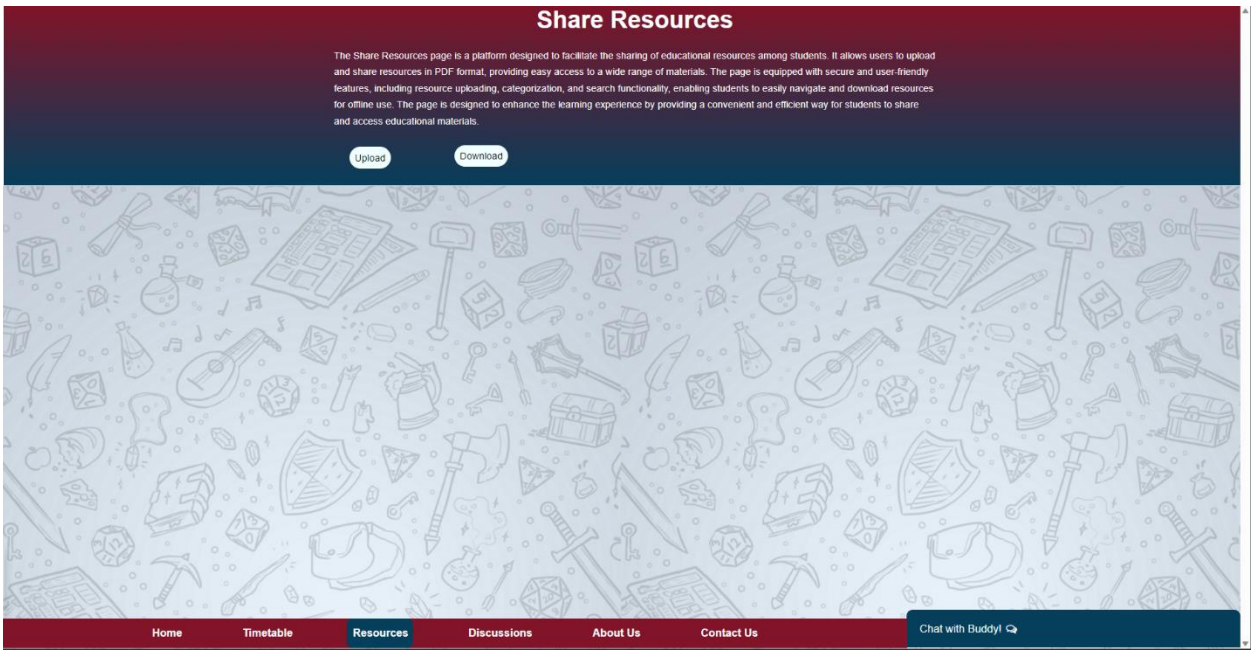


Figure 1b

Shared Resources page



The shared resources page contains a navigation bar , like the other pages, also it contains the purpose of the website as well as two buttons(Upload and Download). The upload button displays a section , that contains a form when

clicked(figure 2a). The download button displays a section, that contains a table that contains all the data entered in the upload form(figure 2b.

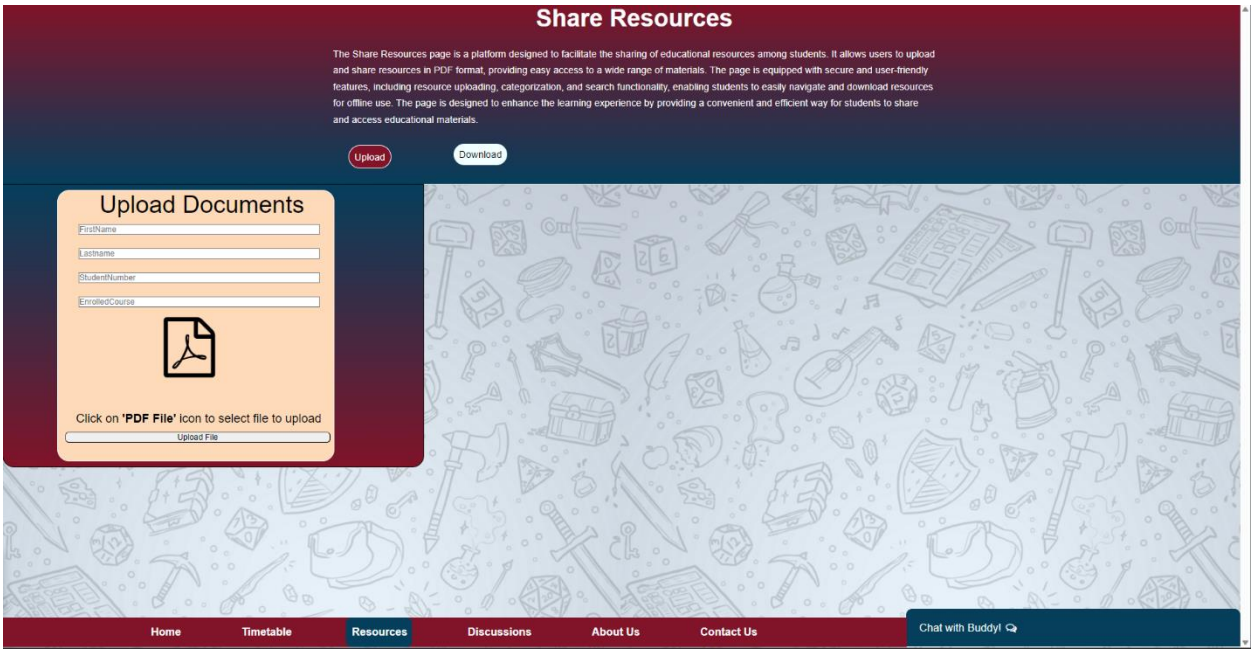


Figure 2a

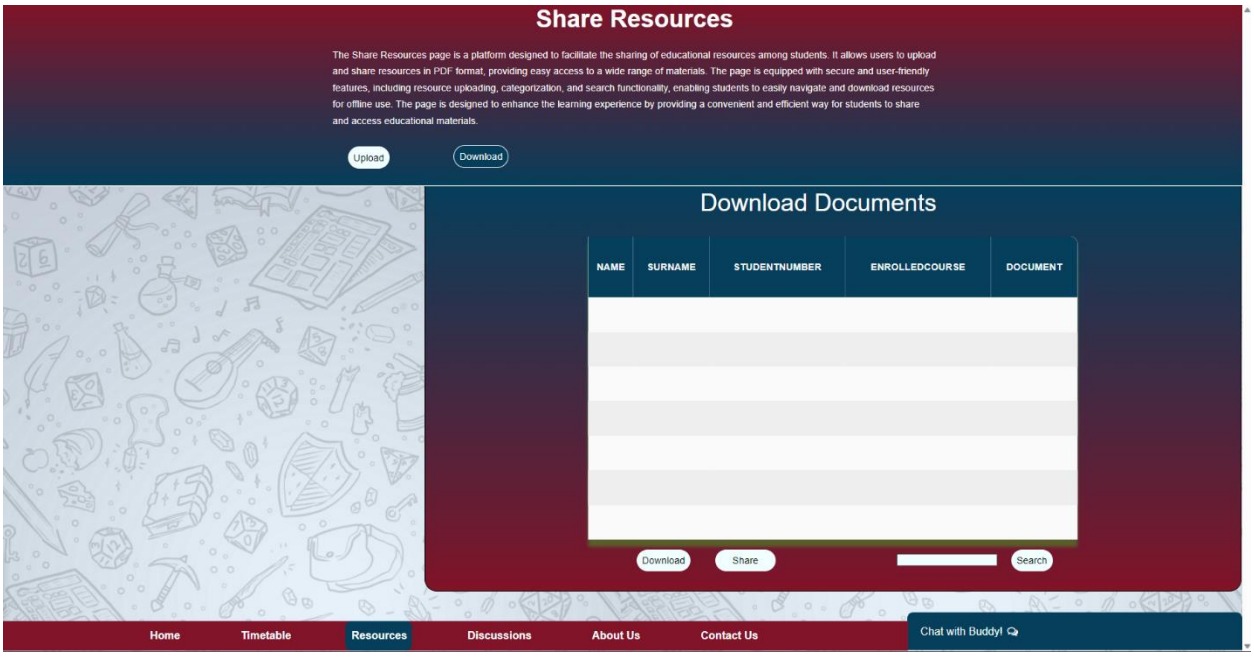
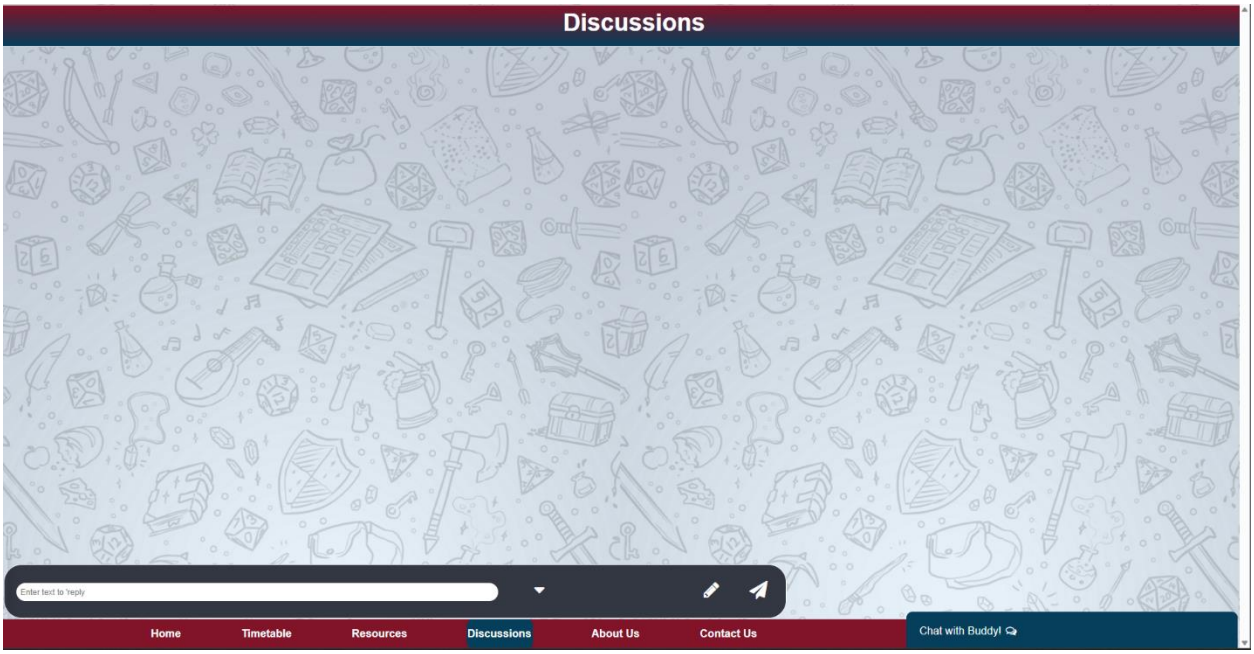


Figure2b

Discussions Page



The Discussions page contains a text bar section, that allows the user to enter text. But is disabled if user does not select a topic from the Drop-down menu. There are other features to this section such as an edit button and a send/reply button. When the required topic is selected(figure 3a) the input box is enabled, and the user can enter text.

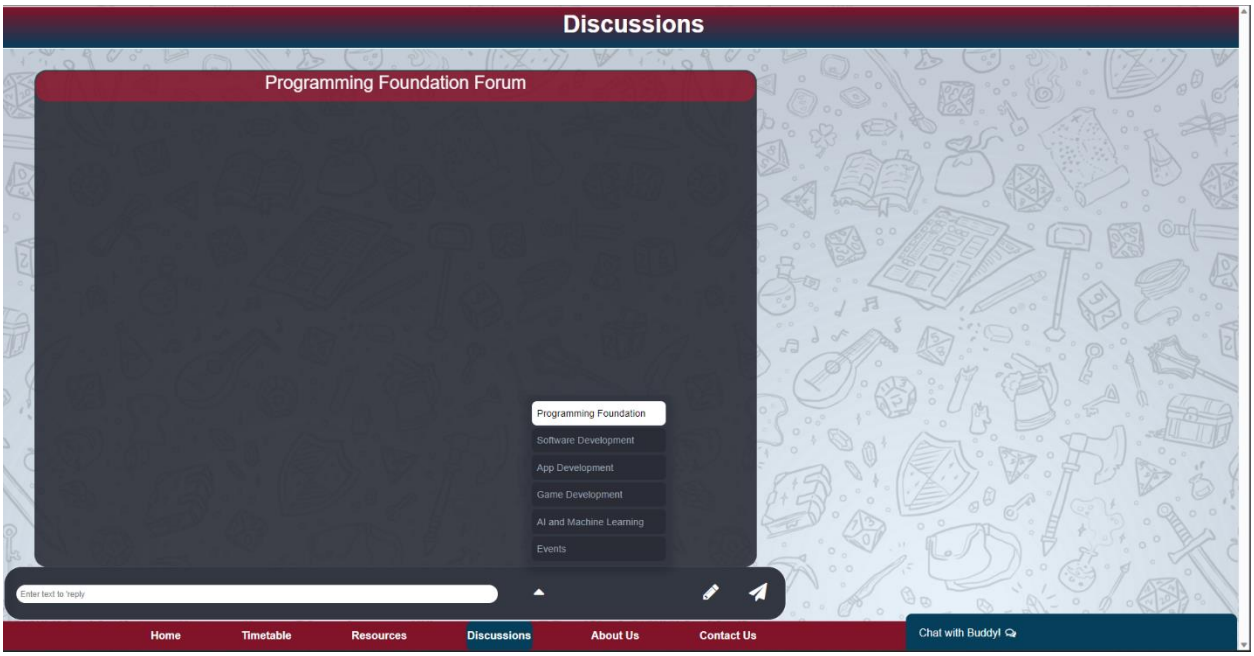
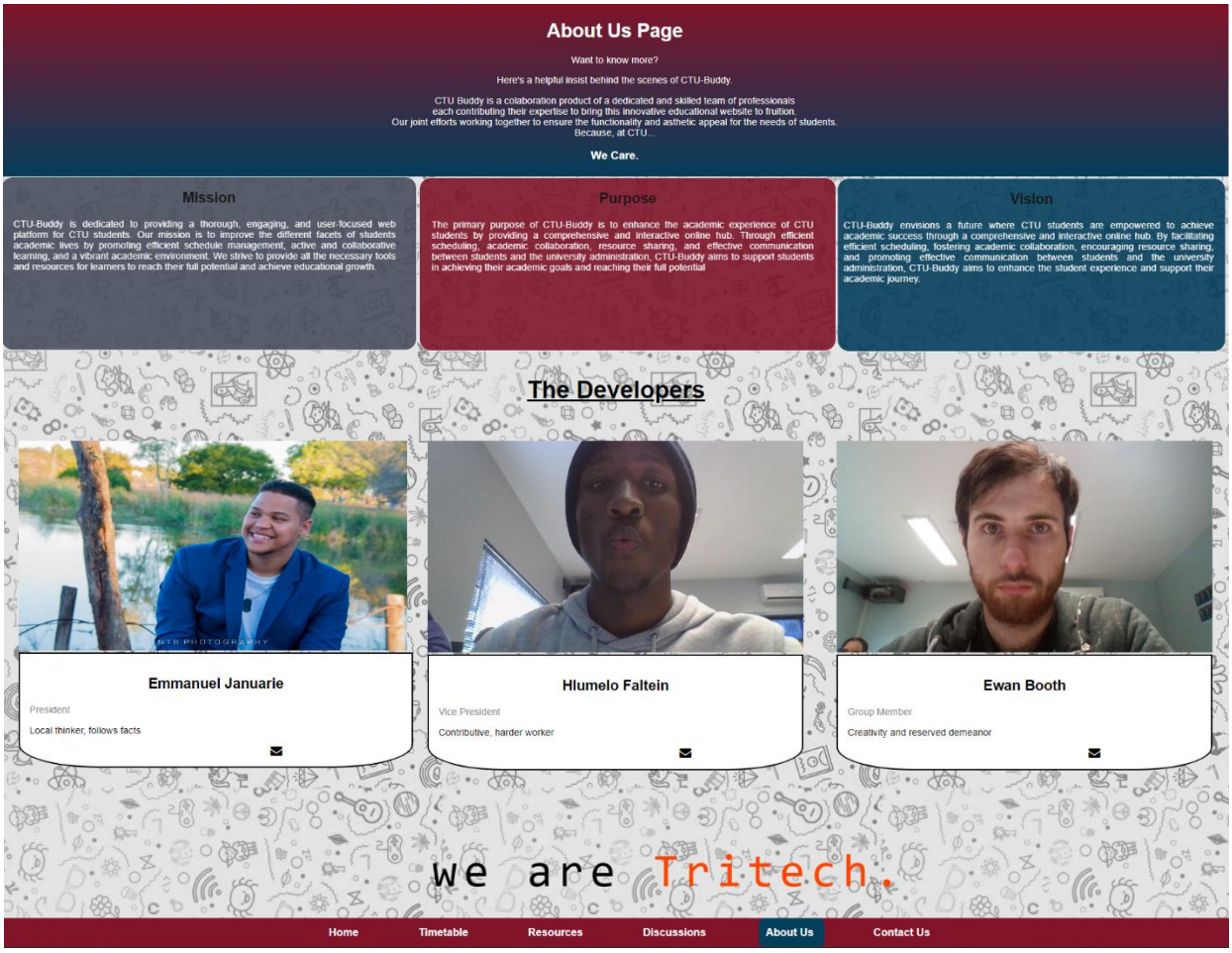


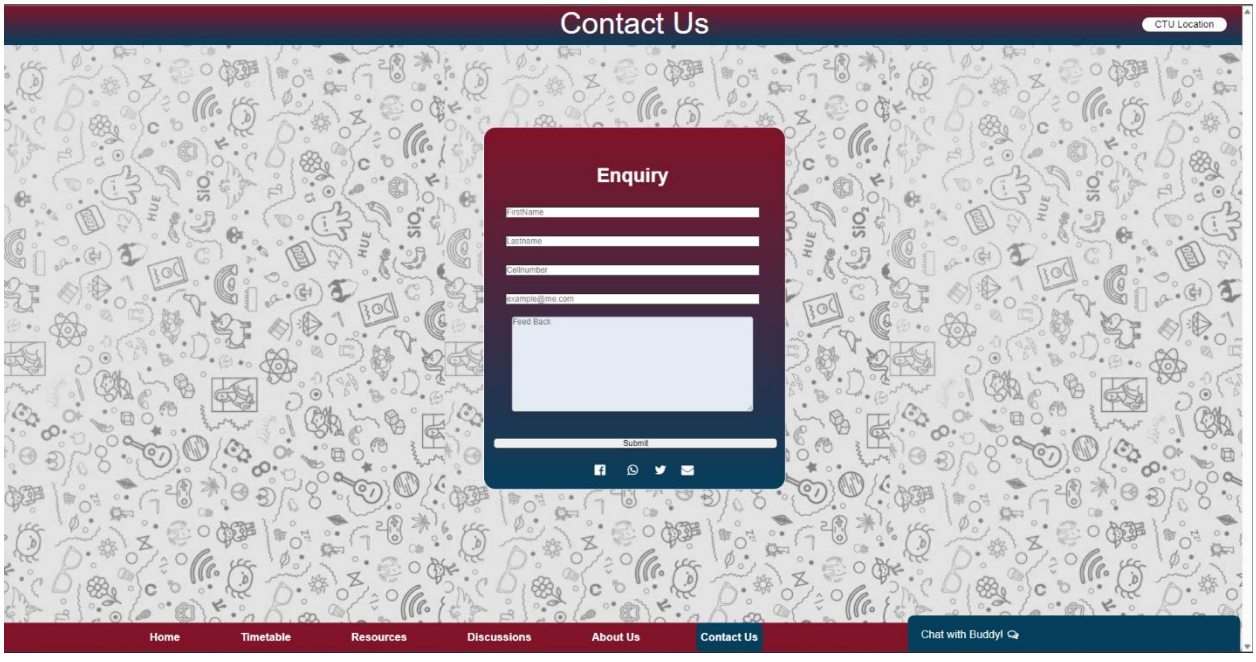
Figure 3a

About Us Page



The about page contains information about CTU Buddy as well as about the developers behind the development of CTU Buddy.

Contact Us Page



The contact us page contains a form that allows you to post an enquiry to CTU or visit CTUs flatforms or send an email by using the icons, that's intended to direct you . Furthermore, this page contains a CTU Location button(figure 4a) in the top right corner of the screen. This button brings done a section which allows you to get the exact location of the CTU campus.

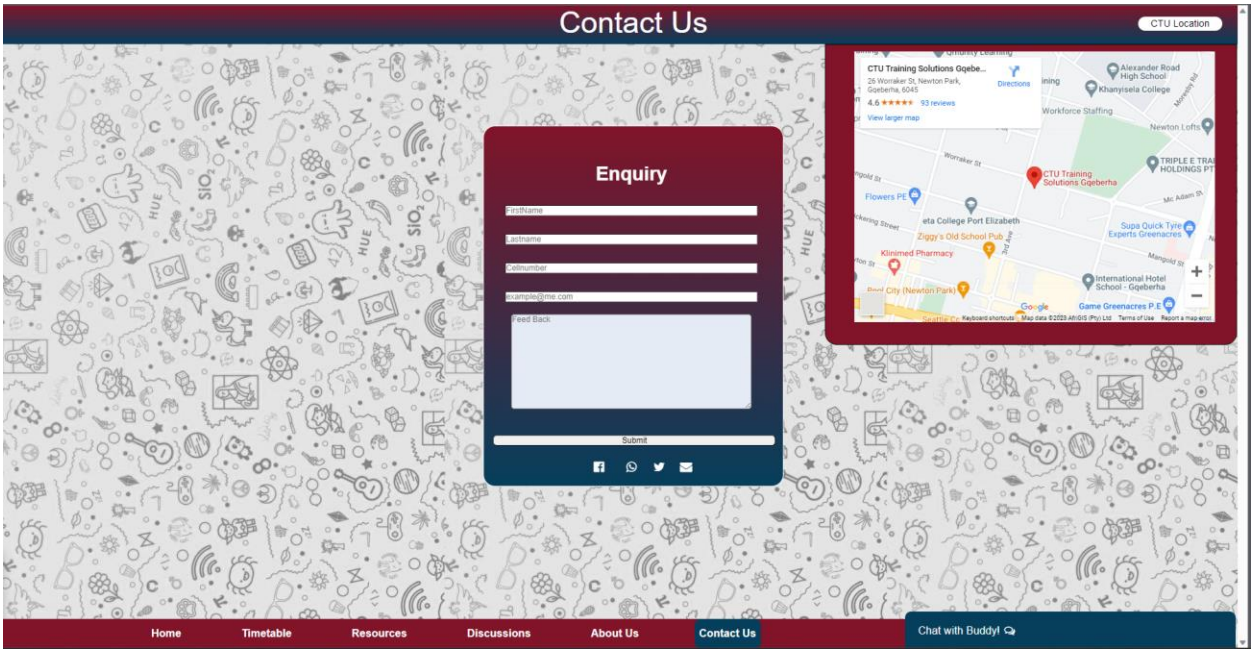


Figure 4a

3.3 System Features

Tools or components that you utilize within a system to execute a set of activities or actions are referred to as system features. They represent solution functionality that adds value to the company, meets a stakeholder requirement, and is small enough to be delivered by an ART.

3.1.1 Software Functionality (It is required capabilities)

[Req #]	Software Functionality
Req001	Windows 8+, Mac OS 10.7+
Req002	MySQL v8.0.19 or newer

Req003	Nodejs version or newer (This is mostly used to establish a link between the html and CSS document to the database)
Req004	A domain to host your website (Heroku, Azure or some other similar domains)
Req005	Internet connection with 500+ kbps
Req006	Newest version of Google Chrome, Firefox, or Safari

3.1.2 Software Characteristics

ID	Characteristics	H/M/L	1	2	3	4	5	6	7	8	9	10	11	12
1	Functionality	H												
2	Reliability	H												
3	Usability	H												
4	Efficiency	M												
5	Maintainability	H												
6	Portability	H												
7	Robustness	L												
8	Integrity/security	H												

3.4 Non-Functional Requirements

Non-Functional Requirements is a guide that specifies the quality attributes of a software system, such as responsiveness, usability, and reliability. NFRs are used to support and determine how a system must perform.

Requirements	Question	Answer
Security	Does your software (Website) store sensitive information?	Yes, usage of login credentials to access the website, and student events and their information(contact details).
	What security practices are used in your industry?	N/A
Capacity	What's your system's storage requirements?	500Mb and above.
	How will your system increase its store capacity?	Using upgraded cloud features. Sustainable code practices(less lines of code)
Compatibility	What's the minimum hardware requirements?	Memory: 4Gb+ Processor: i5…+

		GPU: WebGpu Api(used for rendering and other graphical aspects), that requires Vulkan, Metal or DirectX12. Storage: not necessary since it's stored on cloud. Depends on the amount of data imports.
	What is the recommended operating system (and versions)?	Windows 8+, Mac OS 10.7+
Reliability and Availability	What is the critical failure time?	3mins.
	Does a user need access to this website all hours of everyday?	Yes.
Maintainability and Manageability	How long does it take to fix components?	1+ hour
	How easily can an administrator manage the website?	High
Scalability	What are the highest workloads, that can be implemented to keep stability?	Any
Usability	How easy is it to use this product?	User-friendly and simply understood.
	What describes the experience of using this website?	It's quick to navigate, which manages and optimizes time efficiency for students.
Performance	How quickly does the website respond to a user's actions?	Decent respond time on average. Dependent on internet connection and server output.
Regulatory	Any specific requirements needed for compliance in your industry?	Capacity for internet connection. Stable Internet connection.
Environmental	What type of environments will this system be expected to perform in?	Workspace ,and educational facilities.

3.5 Technologies used.

These technologies refer to the programming languages used to fabricate the website (CTU-Buddy).

No.	Technologies
1	Html
2	JavaScript
3	CSS
4	MySql
5	myPhpAdmin

4 Conclusion

To sum up, CTU Buddy represents innovation and teamwork within City Technical University's (CTU) educational environment. CTU Buddy offers an interactive platform that tests the norms, with a dedicative effort to enhance students' academic journeys. This platform transforms how students engage, study, and interact.

CTU Buddy reimagines how students manage their calendars by offering a user-friendly and engaging interface, encouraging effective time management, and enabling the seamless blending of academic and personal obligations. The platform's Discussion function acts as a center for intellectual conversation, allowing students to benefit from their peers' aggregate expertise and improve their educational experience.

Stakeholders

Stake holder Name(s)	Organization	Role
Emmanual Januarie	Tritech© ind	President
Hlumelo Faltein	Tritech© ind	Vice President
Ewan Booth	Tritech© ind	Member