

Faculty Name: IT

Qualification Name:

Programming

Foundation

SRS Template

Phase 2

STUDENTS

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Introduction.....	3
1. Purpose of CTU-Buddy website	3
2. Project Scope.....	3
3. Team members with Roles and Responsibilities.....	3
Project Description	4
1. User Needs	4
2. Project goals	4
3. Project purpose.....	4
Phase 2	5
1. System Features and Requirements.....	5
2. System Features/none functional requirements.....	6
3. Project Planning: Phase 2 Timeline:.....	7
Phase 3	8
1. System Features and Requirements.....	8
2. System Features/none functional requirements.....	9
3. Project Planning: Phase 3 Timeline:.....	11
Declaration of Authenticity	12

Introduction

1. Purpose of CTU-Buddy website

- Connecting new students with mentors or peers: The website might help new students (freshmen or first-years) connect with upperclassmen or experienced students who can provide guidance, and support, and answer questions about navigating college life, academics, or social aspects.
- Finding study groups or partners: The website could facilitate students finding Others in their courses to form study groups or find study partners for specific subjects.
- Building a social network or community: The platform might aim to create a social space for CTU students to connect, share experiences, participate in discussions, or find friends with similar interests.
- Providing resources or information: The website may offer resources or information relevant to CTU students, such as campus maps, club listings, academic support services, or student life events.

2. Project Scope

- This project aims to develop CTU-Buddy, a comprehensive and user-friendly website designed to enhance the learning experience for City Technical University (CTU) students. We will use HTML, CSS, and potentially some JavaScript for interactivity to create a static website prototype displaying the core functionalities.

3. Team members with Roles and Responsibilities

- Kaylim Fortuin developer Created the discussions page the timetable page and the header and footer with links
- Kyle Reneke developer Created the About and Contact Us pages on the website
- Mahlakanye Lekganyane developer Created the home page and shared resources pages

Project Description

1. User Needs

- Identifies the specific needs and challenges faced by the target users of the project.
- Understanding user needs helps ensure the project delivers value and addresses their pain points.
- Students need a centralized platform to manage their class schedules effectively.
- They want a way to connect with classmates for study groups and discussions.
- Easy access to educational resources like lecture notes or past papers.

2. Project goals

- The overall reason for undertaking the project.
- Aligns with the project's value proposition and its broader impact.
- Increase student engagement with the platform by 70% within the first semester.
- Facilitates and number of student-to-student connections through the discussion forum by the end of the year.
- Promote the availability of learning resources with given resources and downloads from the platform in the first quarter.

3. Project purpose

- Project Name: CTU Buddy
- What it is: A web-based platform designed to support students at City Technical University.
- The problem it solves: Helps students stay organized, connect with peers, and access valuable resources.
- Main Features: Timetable management, discussion forum, resource sharing, about us, and contact information.
- To empower students at CTU Training Solution by enhancing their learning experience through improved organization, collaboration, and access to Resources.
- To foster a supportive learning community within the university.

Phase 2

1. System Features and Requirements

From Phase 1 to Phase 2 we changed a few things on the website the reason for the change we made more presentable and much more understandable and easier to navigate through the site these are the changes:

- **Timetable Management:**
 - Develop a personalized timetable feature where users can view their schedule.
 - Display relevant details such as date, time, modules, and days of the week.
- **Discussion Forum:**
 - Create a forum where users can post questions and engage in discussions related to their studies.
 - Implement threaded discussions for better organization and readability.
- **Resource Sharing:**
 - Develop a feature that allows users to upload educational resources in PDF format.
 - Implement categorization and tagging to organize resources for easy navigation.
 - Upload button has been added to make it easier to add your documents.
- **Contact Form Submission:**
 - Create a contact form where users can submit inquiries, suggestions, or feedback.
 - Ensure that form submissions are securely sent to the appropriate person meaning we added the right email addressed and contact numbers.

2. System Features/none functional requirements

In Phase 1 the system features were very basic and in phase 2 we just enhanced those features making it more user friendly and making it work so below is the changes we made:

- **Performance Requirements:**
 - Enhanced Page Load Speed: Further optimize server-side rendering, reduce image and resource sizes, and implement lazy loading techniques to improve page load speed even further.
 - Scalability Improvement: Implement auto-scaling capabilities in cloud infrastructure to dynamically allocate resources based on demand, ensuring seamless scalability as the user base grows.
- **Usability Requirements:**
 - Enhanced User Interface: Incorporate user feedback to refine the interface design, improve usability, and enhance the overall user experience.
 - Interactive Elements: Introduce more interactive elements such as tooltips, interactive charts, and progress indicators to engage users and make the interface more dynamic.
 - Streamlined Navigation: Further streamline navigation by optimizing menu structures, breadcrumb trails, and search functionality to help users find information more quickly and efficiently.
- **Compatibility Requirements:**
 - Extended Browser Compatibility: Continuously test and ensure compatibility with the latest versions of web browsers to maintain a seamless experience across different platforms and devices.
 - Advanced Device Compatibility: Expand device compatibility testing to include emerging devices and technologies, ensuring the website remains accessible to a wide range of users.
- **Reliability Requirements:**
 - Improved High Availability: Implement redundant systems and failover mechanisms to enhance system resilience and ensure continuous availability, even during maintenance and updates.

3. Project Planning: Phase 2 Timeline:

Start Date: April 12, 2024

End Date: April 23, 2024

Team Structure:

- **Mahlakanye Lekganyane:** He oversaw the Home and Resource
- **Kaylim Fortuin:** He oversaw the discussion and timetable
- **Kyle Reneke:** He oversaw the About and Contact

Phase 3

1. System Features and Requirements

- **Timetable Page:**
 - Timetable Management: Via a dedicated page, a personalized timetable feature has been added. Viewing their schedules allows users to see pertinent information such the day, time, modules, and days of the week. This feature makes it easier for users to access their schedules, which improves organization and time management.
- **Discussion Page:**
 - Messaging Functionality: Messages can now be sent and received immediately on the discussion page, allowing users to collaborate and communicate in real time. This feature improves community connection and involvement.
 - Message Visibility: Transparency and involvement are promoted by the fact that all messages sent and received on the discussion page are accessible to all users. Users can read and reply to other people's messages, encouraging insightful dialogue and information exchange.
- **Resource Pages:**
 - PDF Upload Capability: the ability to submit PDF documents directly to resource pages has been added, allowing users to share articles, reports, tutorials, and other pertinent content. As a result, the resource library on the website is more valuable and useful.
 - Document Viewing: viewing Documents From the resource pages, administrators can see and download the uploaded PDF documents, making it simple to access shared papers and promoting cooperation and information sharing.
- **Contact Page:**
 - Comprehensive Contact Form: The contact page has an extensive form that people can use to send questions, comments, or recommendations. To ensure clear and actionable communication, users are required to submit their name, surname, email address, subject, and message.
 - Message Storage and Management: All messages sent via the contact form are kept in the PHPMyAdmin database, which gives administrators easy access to, control over, and ability to quickly address user questions, guaranteeing prompt and efficient communication.

2. System Features/none functional requirements

In Phase 3, the focus was on further improving the features introduced in Phase 2, aiming to enhance performance, usability, compatibility, and reliability. Let us detail the enhancements made in each area:

- **Performance Enhancements:**

- Optimized Page Load Performance: To further enhance page load performance, extra steps were included, building on the optimizations made in Phase 2. This could entail developing advanced caching strategies, optimizing picture and resource compression, and improving server-side rendering.
- Scalability Enhancement: The auto-scaling features from Phase 2 were improved upon to guarantee smooth scalability even as the user base expands. For effective scalability, this entails optimizing resource allocation algorithms and keeping an eye on system performance.

- **Usability Improvements:**

- User Interface Refinement: To increase usability and boost the overall user experience, the user interface was further refined while taking user comments into consideration. To improve engagement, this may entail adjusting layout designs, perfecting color schemes, and maximizing interactive aspects.
- Improved Interactive components: To make the UI more user-friendly and captivating, more interactive components were included, including dynamic tooltips, animated charts, and interactive forms.
- Streamlining Navigation: Additional optimizations were performed to improve navigation, such as strengthening search functionality for faster and more effective information retrieval, streamlining menu structures, and improving breadcrumb trails.

- **Compatibility Enhancements:**

- Extended Browser and Device Compatibility: Constant testing and assurance was done to make sure the website worked with the newest web browsers as well as newly developed devices and technologies. This meets the needs of a diverse user base by guaranteeing a smooth user experience across all platforms and devices.

- **Reliability Refinements:**

- High Availability Optimization: To further increase system resilience, more redundant systems and failover methods were added, building on the gains made in Phase 2. To preserve dependability and uptime, this guarantees constant availability even during maintenance and updates.

3. Project Planning: Phase 3 Timeline:

Start Date: April 28, 2024

End Date: May 14, 2024

Team Structure:

- **Mahlakanye Lekganyane:** He oversaw the Home and Resource
- **Kaylim Fortuin:** He oversaw the discussion and timetable
- **Kyle Reneke:** He oversaw the About and Contact

Declaration of Authenticity

Completed Declaration of Authenticity

I, Kaylim Fortuin, Kyle Reneke, Mahlakanye Lekganyane, solemnly declare that the work presented in this Summative is entirely my own. I have not plagiarized or copied the work of others without proper acknowledgment. I affirm that the content, ideas, and arguments presented herein are the result of my independent effort and intellectual contributions. I understand the significance of academic integrity and the detrimental consequences of engaging in plagiarism or other forms of dishonesty.

Therefore, I assure you the following:

1. All sources used in this work, including but not limited to books, articles, websites, and personal communications, have been appropriately cited and referenced according to the specified guidelines or referencing style.
2. Any direct quotations or paraphrased information from external sources have been identified by using quotation marks or proper citation methods.
3. I have not received any unauthorized assistance or collaboration from others in completing this work, except for instances explicitly permitted by the instructor or clearly stated in the assignment guidelines.
4. The ideas, arguments, and interpretations expressed in this work are my own and have not been submitted for assessment in any other academic setting unless explicitly mentioned and properly acknowledged.
5. I acknowledge that failure to adhere to these principles of academic honesty and integrity may result in severe penalties, including but not limited to the rejection of this work, loss of marks, academic probation, or disciplinary action as deemed appropriate by the educational institution.

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Date: 23/04/2024

