TUS (Tutors of University of Science)

TUS Vision Document

Version 1.2

| TUS | Version: 1.2 |
|------------------------|------------------|
| Vision (Small Project) | Date: 28/10/2023 |
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Revision History

| Date | Version | Description | Author |
|------------|---------|--|-------------------|
| 22/10/2023 | 1.0 | First overview about PA1 and fill 3 parts: Introduction, Positioning, Stakeholder, and User Description. | Trịnh Xuân Bách |
| 29/10/2023 | 1.1 | Fulfill the Product Overview, Product Features, Nonfunctional Requirements | Nguyễn Quang Thái |
| 06/11/2023 | 1.2 | Review and update content | All team |
| | | | |

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1. Introduction

The purpose of this document is to collect, analyze, and define high-level needs and features of the **TUS**. It focuses on the capabilities needed by the stakeholders and the target users, and **why** these needs exist. The details of how the **TUS** fulfills these needs are detailed in the use-case and supplementary specifications.

The introduction of the **Vision** document provides an overview of the entire document. It includes the purpose and references of this **Vision** document.

1.1 References

Applicable references are:

- YouTube video demo PA1
- Slide PowerPoint Introduction to Software Engineering

2. Positioning

2.1 Problem Statement

| The problem of | HCMUS students search for tutors to support them in school subjects. | |
|--------------------------------|--|--|
| | Students want to become tutors. | |
| | Addition, students can search for a tutor by type of name, gpa, | |
| affects | HCMUS students. | |
| the impact of which is | A lot of students become tutors. | |
| | Students want to improve their score. | |
| | Gain experience from students who have learned. | |
| a successful solution would be | Build a web for TUTORS as students of HCMUS become tutors and role students of HCMUS payment for tutors to support subjects. | |

2.2 Product Position Statement

| For | HCMUS students | |
|--------------------|---|--|
| Who | Students who want to become tutors | |
| The (product name) | TUS – an web developments | |
| That | Students become tutors to support them all subjects | |
| | Gain experience all subject. | |
| | Improve GPAs. | |
| Unlike | Posting on HCMUS Facebook group. | |
| Our product | Post information for students become tutor. | |
| | Provide a commercial platform for payment to hire tutors. | |

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3. Stakeholder and User Descriptions

3.1 Stakeholder Summary

| Name | Description | Responsibilities |
|-------------------|---|---|
| IT Developer team | Students of 21CLC04, HCMUS | Responsible for developing and maintaining the sustainability of the software. |
| Ho Tuan Thanh | Teaching Assistant | Supervisor of IT Developers |
| User | Set default as Buyer and can request to upgrade account to which can either buy or sell products | Ensure the default user can view products and payment to tutors. After upgrading account's students get a role as tutors and can post personal information. User can rate the tutor after the courses end or after 1 week. User can chat with tutors and admin. |
| Admin | Administrate the web Admin request of upgrading account, reporting, and banning account from user. | Responsible for handling and supporting all problems of web developments. Responsible for handle some the problems from user (accepting request: upgrading account, reporting and banning account from user). |

3.2 User Summary

| Name | Description | Responsibilities | Stakeholder |
|-------|-------------------------|--|-------------|
| User | Default User account | View products. | USER |
| | | Search product by name, GPAs, tuition fees. | |
| | | Post request for products. | |
| | | Rate or comment about tutors after the course. | |
| | | Chat with tutors and admin. | |
| Tutor | After upgrading account | Besides all the USERS's responsibilities, they can: add, remove, edit your profile through checking's admin. | USER |
| | | Post personal information, schedule, tuition fees. | |

3.3 User Environment

- Users are HCMUS students who want to become tutors and has unique academic materials want to buy.
- The users are educated, computer literate, and in most cases mobile, PC, tablet.
- Initially, TUS is an e-commercial market where only HCMUS students can become tutors and sell courses. In the future, the scope of the user will be expanded larger to the whole community.

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The initial release of TUS will be limited to University of Science, especially to school, college. The users
can take advantage of this platform to become tutors and sell/buy academic materials, products to all peers
among HCMUS.

3.4 Summary of Key Stakeholder or User Needs

| Need | Priority | Concerns | Current Solution | Proposed Solutions |
|---|----------|--|--|---|
| Students become tutor and students want to improve GPAs. | High | The current solution is approached by a small group of people. Many students need tutors on university can support them all subjects, but they cannot see that Facebook post | HCMUS students use Facebook page to post all their requirement to become tutors. However, this platform is officially used for posting information notifications from school and not suit for student post your curriculum vitae be as tutor with high reputation. | Creating an e-commercial platform, where student who in need of tutor can support for all subjects and search by name, tuition fees, GPA and buy or sell academic materials |

3.5 Alternatives and Competition:

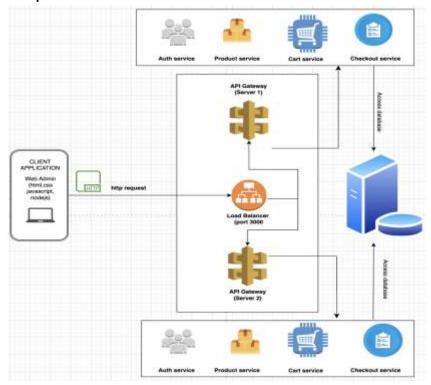
Currently, there are a lot of platform on the Internet that student can approach:

- **Dat Viet Tutoring Center** is a prestigious tutoring center in Ho Chi Minh City, specializing in providing a team of good tutors to tutor at home. The center was established in 2010 and currently has more than 15,000 teachers and students
- **Tri Viet Tutoring center** in Ho Chi Minh City, Vietnam. It was established in 2010 and has been providing quality education services ever since. The center offers home tutoring services for students from grade 1 to grade 12, as well as foreign language tutoring services such as English, Japanese, and German

4. Product Overview:

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4.1 Product Perspective



4.2 Assumptions and Dependencies

- Assumption
 - User requirements: the user requirements for the software are well-defined and understood by the development team. This includes assumptions about the functionality, usability, and performance of the software.
 - o **Platform**: custom-built or a third-party solution, is suitable for the needs of the business and can handle the expected traffic and sales volume.
 - o **Product inventory**: the product inventory is well-defined and accurate, and that the software can handle available tutors.
 - o **Payment processing**: the payment processing system is secure, reliable, and compliant with relevant regulations, such as PCI DSS.
 - Customer support: the software includes features for customer support, such as, suggest suitable tutors. Customer support staff are trained and available to provide assistance as needed.
- Dependency on some technology using

| STT | Language | Version | |
|-----|------------|--------------------|--|
| 1 | HTML | 5 | |
| 2 | CSS | 3 | |
| 3 | Javascript | ECMAScript 2019 | |
| 4 | Nodejs | 20.9.0 | |
| 5 | MongoDB | 7.0.2 | |

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5. Product Features

| Feature | Actor | Description | Priority |
|---|-------------------------|--|----------|
| Sign-in | [USER] | Log into your account by username and password. | High |
| Sign-up | [USER] | Register as a user by filling name, address, password | High |
| Upgrade account to become tutor. | [USER] | User accounts are set default as viewer. If user want to become tutor, they must request to upgrade account. | High |
| Post a request to buy product | [USER] | Users can require a specific product they want to buy and have bargains with others user who have that product. | Medium |
| Add product to cart | [USER] | Add product to make payment. | High |
| Checkout cart | [USER] | Make payment for products on your cart. | High |
| Rating tutors | [USER] | After hiring tutors, users can rate their experience studying with that tutor. | Low |
| Add tutors to favorite | [USER] | There is a category of loved tutors to add. | Medium |
| View tutors by type | [USER] | All products are categorized by labels (GPAs, schedule, tuition fees,), users can view products by these categories. | Medium |
| Search tutors by name | [USER] | Browse tutors by name. | High |
| View tutors information | [USER] | User can see tutors information: name, rating, GPAs, scheduling, tuition fees | Low |
| View order history | [USER] | User can see their previous orders. | Medium |
| Create a new course | [SELLER] | Tutor can add their various courses to their home page | High |
| Chat with tutors/user | [USER, TUTORS] | There is box chat to ask about problems. | Medium |
| Report account | [USER] | If there is any problem about Commerce Policies and Community Standard, user can report that account. | High |
| Remove course | [TUTORS] | Tutor can remove products if it is unavailable. Admin also have ability to remove unsuitable products (against Commerce Policies and Community Standard) | High |
| Chat with admin/user | [USER, ADMIN,TUTORS] | There is box chat to ask about problems. | Medium |
| Forgot password | [USER, TUTORS] | Request to change password in case you forget. | High |
| Change profile information | [USER,TUTORS] | Edit your profile information. | Medium |
| View report account and decide what to do | [ADMIN] | Moderators view all report requests from users and make decisions. | High |
| Ban account | [ADMIN] | Ability to ban illegal accounts. | High |
| Add account | [ADMIN] | Authorize sign up request. | High |

6. Non-Functional Requirements

- TUS is a web development which can run on PC, web browser,...
- Web is available in English.
- Web are used only for HCMUS students.
- Programming language and framework: Golang, Flutter, ReactJS, MongoDB.
- The software must be designed and developed using clean, modular, and well-documented code to ensure ease of maintenance and extensibility.

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- The app must be able to handle a certain number of requests per second, or that it must be available to users 24/7 with minimal downtime.
- TUS has the ability to store data locally and synchronize with the server when a connection is available.
- Loading website must be under 3s.
- The website must be available in 99.99% of the time.
- It's easy to maintain and update, or that it must include comprehensive documentation and version control.