Vision Document  
Rent-a-Tutor

# Introduction

The purpose of the vision document is to visualize the final product of the software to be developed. The vision document will include the product positioning, stakeholder descriptions, product overview, product features, risk and feasibility, and the use case diagram of the software.

The purpose of the product is to create an E-learning platform that offers students with a wide selection of tutors allowing one on one or even group lessons covering a variety of subjects. With access to networking with other students and videos uploaded by our badged tutors, Rent-a-Tutor provides a sense of community which can help lead our students to a brighter future.

# Positioning

## Problem Statement

|  |  |
| --- | --- |
| The problem of | Reliability. The system has trouble keeping up with heavy conversations between tutors and students and offers no way to send documents. As a result, students are having trouble communicating and sending documents to tutors. |
| Affects | Students and tutors |
| The impact of which is | Affecting the communication between two parties: students and tutors.  Students cannot receive help from their tutor in the form of proper feedback directly annotating their document. Vice versa with the tutors, they cannot perform their job properly if they first can’t receive the work (document) from the students and thus can’t give clear indication directly on the work. This also causes users to lose time. |
| A successful solution would be | to have a strong and responsive chat box feature within the application. This solution will allow students and tutors to communicate freely. Similarly, the chat box will have the ability to send documents through it and another section allows submissions, including heavy documents/files, like the Moodle platform. This helps users to better interact with each other and not waste time from having issues sending documents. |

## Product Position Statement

|  |  |
| --- | --- |
| For | Tutors, students, and students’ parents |
| Who | * Need a feature that allows students/parents to communicate with tutors * Need a feature that allows students and tutors to send any documents to each other * Need a user-friendly website for both new and current users |
| Rent-a-Tutor | is an e-academy platform |
| That | Offers a user-friendly interactive application allowing users to communicate easily. The software is built to provide tutoring that favors the success of students. Past tutoring videos can be visioned, so students or tutors can review the help received or given. Heavy documents can be exchanged between users and the latter can review and comment on them simply. |
| Unlike | Study 1on1, Superprof and Apprentus |
| Our product | Includes new additional features, which will improve the user experience in regard to exchanges between users, mainly students and tutors, as our platform will display a more modern look with a rounder UI:  For tutors, they can either teach a class or offer a 1-on-1 lesson, upload videos instead of doing live lessons, and can link their certifications/diplomas/LinkedIn.  For students, they can vision past videos/lessons, have a forum where tutors will always be available to help them, preview tutors’ voices, see a preview of a tutor’s calendar and their availabilities, have specific tutor filters to tailor their needs by time zone, can share notes and have study session among themselves.  For admins, they can enroll students into lessons and analyze the website's finances.  Our system offers different types of accounts to differentiate students that require a parent/guardian account to monitor work, progress, and grades (child account) and those who don’t (teen account). |

# Stakeholder Descriptions

## Stakeholder Summary

|  |  |  |
| --- | --- | --- |
| Name | Description | Responsibilities |
| Investor | An entity which will put money into the development of the system for financial or any type of utility return. | To ensure that the process of developing the system is well funded so that it may be completed. |
| Concordia University | A university based in Montreal with a student enrollment of 45000. | Concordia is interested in the project to help Concordia students excel in subjects raising the average GPA of Concordia students. |

## User Summary

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Responsibilities | Stakeholder |
| Students | The primary utilizers of the system. | To continue to use the system and refer other users to boost the amount of users | N/A |
| Tutors | The ones offering one to one sessions and classes to students. | To ensure that the quality of teaching meets a certain standard and coordinates with students. | N/A |
| Admins | Provide support to either an individual or team and is vital for the smooth-running of the website | To help and support users and to monitor the websites activity | N/A |
| Parents | Parents of the students. Unlike students, parents are more passive users. They are projected to visit the website from time to time (no daily unlike some some students) | Monitor the progress of their children (students) | N/A |

## User Environment

Depending on the nature of the task. A project of that magnitude would require anywhere from 3 to 8 people involved in completing a task. This number should not vary a lot since this kind of project has been done before and people should have prior experience.

A task cycle is a sprint of 2 weeks. Bi-weekly, there will be a big meeting between the developers, the managers, and representations of the stakeholders.

The amount of time spent on each activity will vary depending on the difficulty of the activity. However, it should not exceed a couple weeks for a single activity. It shouldn’t vary a lot since most activities would be similar (e.g., create a webpage and link it to the backend).

There are no unique constraints other than the website being PC, tablet and mobile compatible.

The front-end is platform independent since it is a web app. However, the backend could be running on a Linux virtual machine (since could services all use Linux VMs).

The system should at least integrate with a payment service (e.g., Stripe).

## 3.4 Key Stakeholder or User Needs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Need | Priority | Concerns | Current Solution | Proposed Solution**s** |
| Students learning at different paces | High | Students may fall behind in their learning | Courses in form of videos | Adding one to one tutoring |
| Students having a sense of community | High | Students lacking a sense of community | Having in person sessions | Allowing students to have study sessions amongst their peers online and offer classroom style tutoring sessions online. |

## 

# Product Overview

## Product Perspective

* Rent-a-Tutor is an independent and completely self-contained system.
* Compared to other e-learning platforms, Rent-a-Tutor offers the possibility to choose between private one-on-one class or a more traditional group lesson type of environment.
* Videos can be uploaded by tutors and students can choose to watch these videos or watch previous videos from past lessons
* Rent-a-Tutor is transparent with the service offered and the process in which tutors teach students.
* Tutors go through a thorough selection process before getting hire to teach students.
* The platform is student-friendly and offers multiple features for a better learning experience by accommodating and going beyond the student’s needs.
* In that way, it is a distinct platform from any learning platform seen before.

## Assumptions and Dependencies

|  |  |
| --- | --- |
| Assumptions | Dependencies |
| It is assumed that to navigate our platform, students and staff are required to use hardware, such as a mobile device or a computer | Apple, Samsung, Dell, Chromebook |
| Operating system capable of accessing a web browser | MacOS, Windows, Linux |
| Software that could help them take notes or complete homework assignments | Microsoft Word, PowerPoint |
| The website itself should be able to withstand a traffic of thousands of users connected at the same time | Up to standard bandwidth for an optimal speed of response |

# Product Features

# Core Features

**5.1.1** **Ability to Create Accounts:**

The user should create an account if they want full access to the website. Each account should contain the following information:

* Name
* Email
* Phone Number
* Payment Information
  + Credit Card
  + Debit Card
  + PayPal
* Account Type

**5.1.2** **Ability to Select an Account Type:**

Users should be able to select their account type during account creation. The different account types should be:

* Guest
  + A guest account gives limited access to the platform. This is good for when the user wants to test and explore the features of the platform before committing a payment.
* Parent
  + A parent account allows parents to view their child's progress, make payments towards a child account and allows communication with tutors.
* Child
  + A child account allows children to view their schedule, book a meeting with a tutor and communicate with a tutor.
* Tutor
  + A tutor account allows tutors to communicate with both parents and children. It allows the tutor to post documents and submit grades to children.
* Admin
  + An admin account allows the admins to accept or reject tutor applications. It also allows them to edit information of other accounts and allows them to enroll someone into a course.

**5.1.3 Ability to Track Tutor Applications:**

Admins should be able to have access to and track tutors’ applications. Examples of options are:

* Accept - Tutor application is accepted
* Deny - Tutor application is denied
* Pending - Tutor application is on pending list
* Under Review - Tutor application is being reviewed by an admin

**5.1.4 Ability for Communication with Tutor:**

Students and parents should be able to communicate with tutors through the platform and vice-versa.

**5.1.5 Ability to Post on Forum:**

Students and tutors should be able to post questions and comments on the forum.

**5.1.5.1 Ability to Edit Post**

Students and tutors should be able to change their post. Options should be available are:

* + - * Edit - Edits post that was made
      * Delete - Deletes post that was made

**5.1.6 Ability to Preview Website:**

Accounts that were created should allow users to have limited access to the platform. Examples of things a guest’s accounts can do are:

* View available tutors
* View available lessons
* View tutor prices

**5.1.7 Ability Upload Documents:**

Students should be able to send documents to tutors and vice-versa. They should also be able to see and open documents. The following options should be available for documents:

* Open - Opens document in a new tab
* Download - Downloads document to system
* Delete - Unsends document

**5.1.8 Ability for Lesson Requests:**

Students should be able to request a lesson from a tutor

**5.1.9 Ability to View Requests:**

Tutors should be able to view all the tutoring requests that have been made to them

**5.1.9.1 Ability to Accept or Decline Requests**

Tutors should be able to either accept or decline requests

**5.1.10 Ability to Choose a Lesson:**

Students should have a bank of lessons they can enroll into. This is like an online class.

**5.1.11 Ability to Book Appointment with Tutor:**

Students should be able to book an appointment with a tutor of their choice

**5.1.11.1 Ability to View Tutor Information**

Students should be able to view a tutor’s information. The information shown should be:

* Name - Tutor’s name
* Certifications - Tutor’s certificates and diplomas
* Availabilities - Tutor’s availabilities
* Voice Snippet - A snippet of how the tutor sounds like
* Introduction Video - A video of the tutor introducing themselves

**5.1.12 Ability to Process Payments:**

Parents and students should be able to make payments directly through the platform. Likewise, tutors should be able to receive payments through the platform.

**5.1.12.1 Ability to View Payment History:**

All payments should be shown in the payment history of the user.

* Tutors
  + Tutors should be able to see incoming payment history
* Parents/Students
  + Parents and students should be able to see outgoing payments

# Other Product Requirements

**5.2.1 High Level**

**5.2.1.1 Applicable Standards**

To be able to release this product to the public, it needs to comply with some applicable standards. Our eLearning Platform should comply with the following website standards: Data privacy and Collection Requirements (GDPR, CCPA), Cookie Requirements (GDPR, ePrivacy), Data Security Requirements, Accessibility Requirements (ADA, WCAG), as well as some eLearning platforms standards: Courseware Design Standards, and Technical Standards.

**5.2.1.2 Hardware/Platform Requirements**

Students will need the following hardware and software to be able to use our eLearning platform: A mobile device or a computer with an operating System (Windows, MacOS, Linux, or other), access to a web browser (Google, Safari, Firefox, or other), a valid Email Address for communicating with the tutors, Microsoft Office (Word, Excel, PowerPoint) for taking notes/ doing their homework.

**5.2.1.3 Performance Requirements**

The website should support many users at the same time since we will have thousands of students and tutors which need to communicate. Speed of response and bandwidth are some other performance requirements.

**5.2.1.4 Environmental Requirements**

Operating System Linux, Windows, MacOS

DBMS: MySQL

Browser: Google Chrome, Safari, Firefox

**5.2.2 Quality Ranges**

**5.2.2.1 Performance**

The system should respond quickly to user inputs or other events. A series of tests can be created to measure the performance and how quick the system is.

**5.2.2.2 Robustness**

The system should respond well to unexpected operating conditions. This can be measured by a series of tests.

**5.2.2.3 Fault Tolerance**

The system should be able to replace components in case of disaster. A way to make sure our system has a good fault tolerance is by having backup components that take place automatically in the case that a component fails. We can measure fault tolerance with the following formula: f=m/n where f is the fault tolerance, m is the number of subsystem failures, and n is the number of available subsystems.

**5.2.2.4 Usability**

The system should be easy to use. This can be measured by having a “comments” section, where users can rate the website out of 5 and leave comments.

**5.2.2.5 Other Characteristics**

Portability: The system should work with different operating environments. This can be measured by testing the application on different systems.

**5.2.2 Design Constraints, external constraints, and external dependencies**

Some external constraints of our project would be cost, risk, resources, and quality. An external dependency would be to have the name of our eLearning platform copyrighted.

**5.2.4 Documentation Requirements**

Our website will have a section with instructions on how to use the platform, also, a Q&A section will be available for any user who has questions on how to use the platform.

**5.2.5 Priority**

When building the platform, we will be prioritizing the characteristics of performance, and usability. We need to make sure the eLearning platform works well and is easy to understand by the users. Furthermore, we will focus on offering help to users who have trouble using the platform with online help documentation.

# Risk and Feasibility

**6.1 Domain Specific Risks**

**6.1.1 Competition from Other Services**

The new service should offer new and refreshing functionality that sets it apart from similar solutions

**6.1.2 Lack of Tutors/Students (Users)**

The app will have to be engaging to retain existing users and attract new users to the platform.

**6.1.3 Privacy/Security Leaks**

Users’ private information should be a top priority so sensitive information will need to be kept secure

**6.2 Process Related Risks**

**6.2.1 Changing Requirements**

Requirements that are constantly changing will slow down the development process. Deciding on what the requirements are during the planning stage is crucial.

**6.2.2 Additional Requirements**

Adding more requirements to the project can delay output because there will be additional things to consider.

**6.2.3 Poor Team Performance**

Members of the team must contribute to their part to ensure that the process remains efficient and on track.

# Use Case Diagram

Diagram

Description automatically generated