Vision Document  
MTLStudy

# Introduction

The purpose of a vision document is to describe our vision of how the project will evolve into its eventual final form. The document serves the important purpose of communicating information about the project and its roadmap to key stakeholders like the customer.

The purpose of our project is to offer quick, fast and reliable tutoring services to any high school or post-secondary student while offering as many topics as possible. in specialized on Montreal’s universities and general private lessons. We offer specifically designed study plans for students attending institutions in the Montreal area.

## 1.1 References

Lamsweerde, A. van. Requirements Engineering : From System Goals to Uml Models to Software Specifications. John Wiley, 2009.

# Positioning

## Problem Statement

|  |  |
| --- | --- |
| The problem of | There is no completely integrated platform for online tutoring tailored specifically to programs and course sequences offered to students by universities. This kind of platform would allow both students to sign up to receive tutoring, as well as allow tutors to sign up and offer their services and set their own prices. |
| Affects | The main stakeholders affected by this problem statement are students looking for personalized tutoring services and tutors looking to offer their services to students in need.  Secondary stakeholders would be Administrators and HR staff who will ensure the smooth operation and staffing of the platform. |
| The impact of which is | Students will have convenient and user-friendly access to online tutoring services. They will be able to communicate over chat and video with tutors to get study and homework help. They will have access to study plans tailored to their exact school program and course sequence to allow them to study efficiently.  Freelance tutors will have the liberty of offering their tutoring services on the platform while setting their own prices and work hours they prefer. |
| A successful solution would be | Our proposed solution to the problem at hand is our online tutoring platform, MTLStudy. On MTLStudy, students and tutors can enjoy all the aforementioned advantages in the impact section. We also employ full-time tutors to ensure we always have sufficient tutoring capacity if freelance tutors are unavailable. We also have administrators who monitor and moderate the platform to ensure the quality of our services are held to a high standard. Our HR team will make sure all of the tutors hired are proficient in their area of study as well as have passed a background check. |

## Product Position Statement

|  |  |
| --- | --- |
| For | Freelance teachers |
| Who | We offer freelance teachers the opportunity to work for themselves to a certain degree. They can choose their hours and set their rates while not having to worry about acquiring customers/students on their own because our platform acts as a broker connecting students in need of tutoring and tutors looking for students. |
| Us (MTLStudy) | MTLStudy is an educational online services platform |
| That | MTLStudy offers flexible tutoring services to both students and tutors. We provide a complete online application that connects students and tutors one-on-one for the best possible tutoring experience customized to students’ needs. |
| Unlike | GradeSavers |
| Our product | Our product has numerous advantages such as the availability of one-on-one online tutoring and the ability for freelance tutors to offer their services. |

# Stakeholder Descriptions

## Stakeholder Summary

|  |  |  |
| --- | --- | --- |
| Name | Description | Responsibilities |
| Quality Control | Quality control staff ensures that business on the platform is being conducted appropriately. | 1. Moderating communications between students and tutors |
| Full-time tutors | Full-time tutoring staff to provide more reliable service during business hours. | 1. Tutoring students, much like freelance tutors 2. Staff the platform during business hours in case of freelance tutor shortages |
| Human Resources | Handling employment affairs for both permanent and contractual staff | * Hiring full-time tutors * Hiring operational staff * Handling all legal/contractual affairs relating to the employment of contractual tutors (freelance tutors) |
| Customer Service | Ensuring the satisfaction of our customers and end-users (students and freelance tutors) | * Read emails/messages from customers * Answer phone calls * Provide live chat support * Provide technical support * 24/7 rotation |
| Administrators | Owners of the platform and business | * Take important decisions to shape the future of the platform * Oversee quality control operations and take important decisions * Consult administrative dashboards regarding the finances and health/sustainability of the platform |

## User Summary

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Responsibilities | Stakeholder |
| Students | The platform’s primary customer base | * Sign up for tutoring services * Request tutoring services * Attend one-on-one sessions with tutors * Upload questions/homework * Get personalized study plans * Pay tutors and the platform * Give ratings to tutors | Tutors have the responsibility of representing students’ best interests by providing quality lessons and related study help. By being a good tutor in the eyes of students, they will receive good ratings from their students and, thus, be promoted on the platform and have the chance to become a full-time tutor if they wish.  Customer service also represents the interests of students by ensuring that all complaints and problems with the platform are addressed and solved to keep user satisfaction high.  Administrators oversee quality control operations to make sure that users on the platform feel safe and continue to use it on an ongoing basis. |
| Freelance Tutors | The platform’s secondary customer base. There will be | * Become contractors * Sign up to offer their services on the platform * Choose their work hours and set their prices * Provide the platform with their personal and payment information | Administrators oversee quality control operations to make sure that teachers are behaving appropriately on the platform, leading to users feeling safe and continuing to use it on an ongoing basis.  Human Resources has the duty to vet all freelance hires to make sure we are offering safe tutoring services. They are also responsible for making sure tutors are qualified to do their job.  Students have the responsibility to request tutoring services and attend lessons offered by tutors and rate them in exchange. |

## User Environment

This product is a web application, to be used by students via a desktop computer, laptop or device with internet browsing and video conference features. The application will connect them to a tutor in the subject(s) they need help with through a live tutoring session.

Students’ tasks include:

* + Login/Sign up into their account
  + Search for subject for tutoring
  + Choose a tutor based on ratings
  + Connect with tutor live or book a future session
  + Choose a time from the tutors' availability schedule
  + Log out of system

Tutors’ tasks include:

* + Login/Sign up into their account
  + Wait for system to launch meeting with scheduled student
  + Read course and tutoring session details
  + Enter tutoring session with camera and mic turned on
  + Provide tutoring services for given time period
  + Log out of system

The number of people involved in completing the students’ tasks is 1, the student themself. This would change to 2 people if the primary student is too young and cannot complete tasks on them own; by which they would need a parent or guardian.

The number of people involved in completing the tutors’ tasks is 1, the tutor themself. This would not change as there will be one tutor logging in at a time and all tutors will be able to navigate through the system without any additional help.

A task cycle for the student not including the tutoring session, which on average will be 1 hour long, will be approximately 9 – 11 minutes and the task cycle for the tutor will be approximately 8 – 10 minutes.

A student will spend approximately 1 hour and 15 minutes if he/she has an hour tutoring session. However, this would change if the student already has a session booked. A tutor will spend approximately 1hr and 10 minutes if he/she spends an hour tutoring. This would change if the tutor doesn’t have any pre-booked sessions.

Tutors will need to use a drawing tablet such as Wacom, iPad, Microsoft surface tablet or any other tablets in the market that are compatible with computers and can be connected via USB. The tutors will use a stylus to write during their tutoring session to save time and to create a better experience for the student; one which feels a lot more like a live session in a classroom. It is suggested to the tutor and the student that they are in a quiet setting to reduce unwanted noise and to have better communication between the tutor and the student.

The system platform, Zoom is in use today. It allows tutors and students to connect in a private session and to share screens, chat, and create a virtual tutoring class.

For now, we are using Zoom but we will work towards a built-in Cisco Webex. This will allow the users to have a smoother experience and not have to use various platforms outside our system to complete their activity.

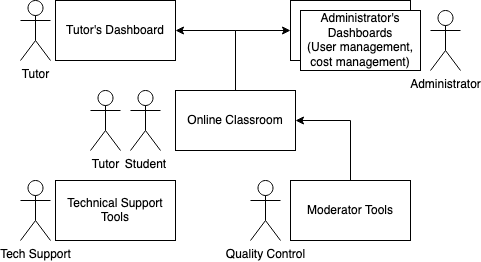
## 3.4 Key Stakeholder or User Needs

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| --- | --- | --- | --- | --- |
| Need | Priority | Concerns | Current Solution | Proposed Solution**s** |
| Allow users to filter courses by category on our website | Low | Not having filtering options on a page full of courses can overwhelm users and make things more difficult to find. | Other tutoring websites display the list of courses they offer but do not group them by category | Identify all offered courses and tag them with a category and offer filtering by category on our website |
| Allow freelance tutors to sign-up, become contractors and offer their services on our platform | High | We might not have enough tutors to offer one-on-one sessions if we only rely on full-time tutors.  If we have too many full-time tutors and not enough students, we will lose money. However, freelance tutors don’t cost us anything when they are not working with students. | Other tutoring websites only hire their own full-time tutors and don’t let freelancers sign up and offer their services via their platform | By lowering the number of full-time tutors, we hire and filling the gap with freelance tutors, we optimize our costs. We don’t have to pay them for a fixed number of hours, they are paid only for the work they do.  This allows us to give more flexible work options to tutors who can set their own rates and work hours. Students also get more tutors to choose from. |
| Allow freelance tutors to set their own pricing and their work hours once they are signed up | High | Tutors might not want to work full-time and would prefer more flexible contract work | Other tutoring websites only hire their own full-time tutors and don’t let freelancers sign up and offer their services via their platform | We want to offer freelance tutors the utmost freedom in how they want to teach. They can “be their own boss” by setting their own work hours, schedule and rate. |
| Develop an online teaching platform to facilitate one-on-one lessons between tutors and students | High | Students may prefer not to leave their home and receive tutoring lessons via video chat. | The tutoring organizations we are comparing our solution to specialize in large-scale in-person tutoring events where dozens of students will be learning from a tutor in a large room. | Instead of gathering many students to one full-time tutor, we prefer to hire many contract tutors who can offer every one of our students' one-on-one lessons remotely. |
| Administrative dashboard to moderate tutors’ and students’ communications/interactions | High | Being an online-first platform opens us to a lot of potential abuse from students or contract workers if there is no moderation in place | None of our current competitors are in the online tutoring market segment | Our platform has built-in tools to monitor all communication and interactions on it and we employ a team of moderators to ensure the best quality of service possible and suspend offenders of our policies. Administrators of the platform have control over users as well as the quality control team who reports to them. |
| Administrative dashboard for costs and other statistics | Medium | We are not sure of the financial viability of our platform without any data backing it up | None of our current competitors are in the online tutoring market segment, thus they have no data or information relating to it | Our platform includes automatically updating dashboards for both tutors and administrators to give them insights into the performance of their activities on the platform. Tutors can see all their current and future income at a glance. This will help them for tax purposes.  Administrators have a global view of all activity and finances via a dashboard that will indicate the profitability and margins of the platform. This can be used by them to tweak the cut the platform takes from tutor revenue. |

## 

# Product Overview

## Product Perspective



Overview of the MTLStudy online platform.

## Assumptions and Dependencies

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| --- | --- |
| Assumptions | Dependencies |
| We are primarily targeting students attending universities in the Montreal region. We will offer tutoring services in French and English for this reason, it is assumed that students attending these universities are proficient in these languages. | We use Olark, which is a 3rd party chat module used for our customers. |
| We only offer out platform as an online service. We are assuming that all of our users, students and teachers, have appropriate technical equipment to access our website and take part in audio/video calls. | Disqus is used as a third-party service that prevents spam when rating and commenting about our tutors. |
| As an online service, we only accept online payment methods like Interac, VISA, Mastercard and PayPal. We assume users can pay via these methods and don’t accept anything else like cash or checks in the mail. | Boast is 3rd party service that is used to collect reviews about our tutors. |
| The market segment we target is primarily academic institution in the Montreal area. As an online service, however, we still allow students all over the world to sign up but we will not be able to provide them our full study planning and exam services. | Flipbook PDF is used as a 3rd party service that allows our customers to upload different documents. |

# Product Features

## 5.1 Core Features

The core features of the system provide easy and helpful guidance to the user. The Core Feature is the ability to sort each request by course category and filter it to eligible tutors who teach that subject to provide a more organized way of filtering information and to avoid a system overload and to avoid unnecessary requests to tutors who can't help at all. For Example, a student will request help regarding a question about Java programming. The system will take the request and will only push the request to the next available Java specialized tutor. And if all Java tutors are occupied. The request will be placed in a queue until the next tutor is available. This will avoid the need to send requests to all other tutors to take pressure off the system, hence keeping the website faster and more responsive. Only the administrator and Quality control manager to all requests or pending requests and have a clear sorted view of them sorted by category. Also tutors who are freelancers will have the ability to receive push notifications or emails to see if there is a request available and could potentially prompt them to go online to make some money. This will increase the frequency of freelancers logging in and increase the workforce at busy times as it will keep them updated on tutoring opportunities. Students will also have the ability to see the ETA for the next tutor, or the position in the queue at any given time.

## 5.2 Other Product Requirements

All the students need is a laptop or a desktop with preferably 8GB of RAM and a minimum of an Intel Core i3 CPU. Laptops must be equipped with a webcam. If the device they own does not have a webcam, then students are advised to purchase an external webcam that connects by USB. Students can also use their tablets or mobile phones as long as they allow permissions for microphone and camera access. Tutors MUST be using Windows or Mac OS or a tablet with high performance with at least 8GB RAM and Intel Core i3 CPU. They also need a drawing board extension. This is because the tutor will be using video chat and using a text editor at the same time and also his device will be screen capturing the session at the same time for it to be stored at the database to be accessed for assessment by the administration and the Quality control department at any given time. The tutors will NOT have access to any of the files of the videos. The videos that will be recorded by Zoom will be saved and will be automatically protected with a password key that only the admins and Quality control managers have. Students must have a minimum internet speed of 5mbps for optimal performance. Tutors must have a minimum of 15 mbps and a good upload speed as well have a good ping in ms. Pop-ups should be allowed on both ends to make it easy to redirect to the zoom video chat.

# Risk and Feasibility

|  |  |  |  |
| --- | --- | --- | --- |
| **Risk** | **Risk level (L/M/H)** | **Likelihood of event** | **Mitigation strategy** |
| **Project Management** |  |  |  |
| Increased tutor requests due to midterm or finals season | M: freelance and idle tutors should be able to handle requests | Certainty | Hiring additional tutors in order to fill the high demand. |
| **Project staffing** |  |  |  |
| Tutor availability | L: the tutor will provide their availabilities when hired in order to match user requests. | Unlikely | Frequent check if the tutor is online/working when they are supposed to be working. |
| **Project Leadership** |  |  |  |
| Absence of team members and tutors' commitment | L: team members and tutors understand the importance of their contribution | Unlikely | Frequently seek feedback and hold short meetings to on a regular basis to keep in touch with everyone involved. |
| Weak team members participation on the Project | L: team members may have conflicting schedules | Unlikely | Setting deadlines and allotting time for the project allows for the project to advance regardless of each member availability |
| **Usability** |  |  |  |
| Students and tutors are unfamiliar or are having trouble navigating our website | L: There will be an FAQ page to indicate the major functionalities of our site | Unlikely | Creating how to videos for the main components of the website by getting feedback from the users. |

Technical feasibility:

Technical feasibility is attainable in terms technology because all of the team members are knowledgeable in software development and analysis, which will facilitate the website creation and maintenance. With the available technology we can develop and properly run the website to provide our tutoring services. For the time it will take to develop the website and hire tutors, they are both achievable by creating a timeline with some wiggle room for every task and being strict on ourselves in respecting the timeline.

Organizational feasibility:

In terms of organizational feasibility, each team member has their strength and we intend to assign roles based on what each person in good at. For example: Jean-Claude will be responsible for interacting with stakeholders on a continuous basis, Tristan will be in charge of the project management due to their apt time management and leadership skills, Yason will be in charge of managing tutors like our human resource contact. Others will be in charge in developing the website, then later we can change the roles accordingly. By assigning each teammate an appropriate role we can properly attain the organizational feasibility.

Financial feasibility:

Our project is financially viable in terms that it does not need a lot of money to begin with, since in terms of creating the website and hosting it is relatively achievable without taking a big financial drawback. After the creation of the website, tutors will be hired basing on the demand we have from our students. This means that we will have a low risk of having a surplus of tutors, instead we will have a well-balanced number of students and tutors which will avoid us having to pay tutors who are not working.

# Use Case Diagram

