
Team 05

muly
Vision Document

Version 1.1

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Revision History

Date	Version	Description	Author
11-11-2022	1.0	First release	muly
25/11/2022	1.1	More details and some revisions	muly

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Vision (Small Project)

1. Introduction

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

This vision document is all about the project on developing **muly**, and has been divided into 6 sections: Introduction describing the overview of the document, Positioning claiming the place of **muly** in the market, followed Stakeholder and User descriptions, and detailed information about the product including features and requirements is represented in the last 3 sections.

Applicable references are

1. Software Engineering (10th Edition), Ian Sommerville, Addison-Wesley, 2015.
2. Course Software Engineering, CS300, University of Science, VNU-HCM, 2022.
3. NetJS Framework Documentation, 2022
4. WebRTC For The Curious, WebRTC implementers, 2022.

2. Positioning

2.1 Problem Statement

The problem of	broadcasting non-gaming hobbies (teaching, playing piano...)
affects	any people using and joining to video streaming industry
the impact of which is	people who lack information about what streaming platform they need to use
a successful solution would be	a centralized place for people to showcase their unique talent

2.2 Product Position Statement

For	content creators, any people with specific hobbies and purposes
Who	wish to broadcast their content and who want to enjoy video streaming
The muly	is a website for multi-purpose live streaming
That	allows the content creator to set up and stream their video to every people in the world
Unlike	the current streaming platform: Facebook, Youtube, Nimo which only focuses on gaming, or focus on other purposes rather than broadcasting
Our product	connects streamers and common people who love to enjoy watching streaming videos.

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5.

3. Stakeholder and User Descriptions

This section describes the users of **muly**. There are 4 types of users of the Streaming service; Developers, Streamers, Web Service, and Viewers.

3.1 Stakeholder Summary

Name	Description	Responsibilities
Developer	This stakeholder will implement and deliver the product to the end users	Developers take responsibility for developing, testing, and maintaining the project. They need to ensure that the platform is fast and scalable
Streamer	The streamer who create and push their content into the platform	Streamer has to create good content to attract viewers
Web Services	These web services will maintain the server and store huge data files like image and video	The web services need to be affordable in the purchase and can be scale whenever the number of user increase
Viewer	The end users who view and spend money for the platform and streamer	The evaluation of viewer is a good measurement for the system to ensure that the platform meet requirement

3.2 User Summary

Name	Description	Responsibilities	Stakeholder
Streamer	Primary end user of the system	Create videos, upload posts, live streams daily and interact with viewers through chat or video.	Self
Viewer	Primary end user of the system	Watch live videos and interact with posts from followed streamers' channels.	Self

3.2.1 User Environment

Users need electronic devices which have a microphone, a speaker, and (optionally) a camera and a stable Internet connection (Wi-fi or mobile data). Because our application is completely **web-based**, as long as your electronic device has internet access, you can fully experience our streaming platform.

Users enact the application on their own. However, the stream can involve multiple users, from many different places. Our application is aimed at the majority of users, whose ages can range from teenagers to adults, they can access the live streams of the people they follow whenever they have time free time.

This application can interact with some other social media accounts like Twitter, Facebook, Instagram, and Youtube,...

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3.3 Alternatives and Competition

- **NimoTV:** Nimo is a well-known esports streaming platform, especially in Vietnam. Nimo provides a low latency stream service and a modern interactive chat room in which users can make donations and interact with the live streamer. However, the streaming service can not stand for 100k viewers watching a channel simultaneously. Besides that, the UX/UI of Nimo is strongly inspired by the gaming industry, which is very terrible for common users who are not into the game enthusiasm.
- **Twitch:** Twitch is one of the largest content creators based which allows the company to attract more users. Live streamers can create custom emotes for their chats, manage audience participation with bots, and receive subscriptions (subs) or gifts. With a large user base, Twitch charges a commission of around 50% on subscription fees paid by viewers. However, this platform come from the US which will create a very high latency for streamers and users in Vietnam.
- **Facebook:** Facebook has been a popular social media site over the years. Livestream is freely accessible to all Facebook users. Because of this, they are unable to control the live stream's content and viewership completely.
- **Youtube:** Youtube is one of the universal live streaming platforms. Most of the videos on YouTube are free and the platform doesn't earn its revenue through a paid subscription. It makes advertisements the only source of a company's earnings that causes the YouTube Livestream Platform's excessive ad volume.

4. Product Features

<i>No.</i>	<i>Feature</i>	<i>Description</i>	<i>Priority</i>
0	Create channel	A basic user will ask for a streamer role. After confirmation, the streamer can create a channel.	High
1	Streaming	A validated user can start streaming on their channel.	High
2	Join channel	Users can join a channel to watch the current streaming user.	High
3	Chat	A user can chat with the streamer and read other chats simultaneously.	Medium
4	Donate	A user can donate for their favorite streamer through other intermediary services.	Medium.
5	Lower/Higher volume	A user can lower the volume or the opposite on the streamer's sound.	Low
6	Follow streamer	Users can follow streamers to receive notifications when streamers go live or when streamers upload a status.	Low
7	Upload status	A user can upload the status of their announcement for their followers.	Low
8	React, comment on post	Users and streamers can interact with each other outside of the streaming timeframe on posts.	Low

5. Non-Functional Requirements

- **Average ping** should be less than 100ms.
- **Delay time/video of the stream** should be less than 5s.

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- **Sound quality** must be at least 320kbps.
- **Number of users at the same time:** The video should be viewed by 1 million users at the same time.
- **Ensure the security** of user information.
- Ensure streamers can **withdraw fiat**.
- Ensure viewers can securely **make payments** into the platform.
- **Easy for maintainability:** Thriving the website maintenance from the initial development means cutting the time & cost to determine and resolve the faults of the system in the future.
- **Scalability:** It will define how the website can grow and increase its features and functionality without impacting the performance of your website.
- **Mobile Responsive**
- **3rd Party Integrations:** app for payment (Momo, VNPay,...), Youtube stream,...