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UNIVERSITY OF SCIENCE

Faculty of Information Technology



CHAT BOT - PA1

VISION DOCUMENT

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NOVEMBER 13th 2024

Company

<Chat Bot> Vision Document

Version <1.0>

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Vision Document	Date: <13/11/2024>
<document identifier>	

Revision History

Date	Version	Description	Author
10/11/2024	1.0	Analyze and fill in complete information for the sections.	Võ Anh Quân; Phan Văn Tài; Nguyễn Hoàng Sang; Phan Thế Anh
13/11/2024	1.1	Edit template of document	Nguyễn Hoàng Sang, Phan Văn Tài, Trần Gia Khang

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Vision (Small Project)

1. Introduction

In the rapidly evolving field of artificial intelligence (AI), chatbot solutions have become an essential tool for individuals and organizations seeking to enhance efficiency, streamline operations, and foster effective communication. This document outlines the vision for a multi-agent chatbot platform that integrates several AI models into a single, user-friendly interface. The proposed system aims to address existing challenges in the chatbot ecosystem, including fragmented user experiences and limited interconnectivity between different AI models.

Our platform aspires to empower users by offering a centralized solution where they can seamlessly compare and utilize AI agents such as ChatGPT, Gemini, and others, all within one interface. By catering to both personal and professional use cases, this project envisions a product that not only saves time but also delivers greater versatility and value.

This vision document provides an in-depth exploration of the problem statement, stakeholder needs, competitive analysis, and the features that will define our product's success. Through this initiative, we aim to position our platform as a trailblazer in the AI chatbot industry, addressing the unmet demands of individuals and businesses alike.

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2. Positioning

2.1 Problem Statement

The problem of	To use many chatbot AI, users have one or more accounts for every chatbot
Affects	User: company, individual
The impact of which is	The user takes much time to create accounts in a chatbot
A successful solution would be	The user can use many chatbot in chatbot web in an account

The problem of	The user wants to compare the result of chatbot's type: chatgpt, claude
Affects	User: company, individual
The impact of which is	The user wants to compare the result of chatbot's type. However, the user change AI's web: chatgpt, claude...
A successful solution would be	Integration of many AI in a web AI, the user can select a type of AI.

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2.3 Product Position Statement

For	Individual
Who	Search, find information which individual want
The (product name)	Chat Bot
That	Allow search in many AI in a website, compare result of many AI
Unlike	Poe.com , you.com
Our product	Integration many AI in a website

For	Company
Who	Use chatbot to service customer auto 24/7 <ul style="list-style-type: none"> - Real-time availability check - Handle data quickly
The (product name)	Chat Bot
That	<ul style="list-style-type: none"> - Allow company integration of AI to service customer - Use to collect data, find data
Unlike	Poe.com , you.com
Our product	Integration many AI in a website

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3. Stakeholder and User Descriptions

3.1 Stakeholder Summary

Name	Description	Responsibilities
Project Sponsor	Typically a senior executive or department head providing project funding.	<ul style="list-style-type: none"> - Approve and contribute funds to the project. - Monitor project alignment with business goals. - Provide strategic guidance and remove obstacles.
Product Manager	Is a product manager, responsible for leading and linking departments together to achieve certain goals. To be more precise, PM is the bridge between UX, Technology and Business.	<ul style="list-style-type: none"> - Determine the vision and goals of the project. - Ensure product and market fit for AI chatbot features. - Validate key feature requirements and user needs. - Effective strategic planning for product management and development
Technical Lead	<ul style="list-style-type: none"> - Is the representative of the dev team, the main coder of the project. - The developers support this person in the project. 	<ul style="list-style-type: none"> - Responsible for code and software architecture - Sets the technical direction for AI integration. - Ensures scalable, maintainable architecture. - Oversees technology stack selection and integrations.
AI/ML Specialists	Experts in machine learning and AI responsible for AI agents' functionality.	<ul style="list-style-type: none"> - Integrates and tests various AI agents (GPT, Claude, etc.). - Ensures AI functionality aligns with project goals. - Optimizes AI performance and reliability.
Quality Assurance (QA) Team	Responsible for testing and ensuring software quality.	<ul style="list-style-type: none"> - Conduct comprehensive testing (testing functionality, performance and satisfying user needs). - Identify and resolve software problems. - Maintain quality standards.
Marketing and Sales Team	Drives market interest and user adoption of the final product.	<ul style="list-style-type: none"> - Conduct market research and identify target audiences. □ Develop marketing strategies for product launches.

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		<ul style="list-style-type: none"> - Provide feedback on market needs and trends. - Make sure product information reaches as many people as possible - as many classes of people as possible.
Customer Support/Service Team	Manages customer interactions and supports product users.	<ul style="list-style-type: none"> - Prepares for end-user inquiries and support needs. - Provides feedback on common user issues and improvement areas. - Collaborates with QA to resolve issues.
Financial Analyst	Responsible for analyzing project costs and profitability projections.	<ul style="list-style-type: none"> - Tracks project expenditures and forecasts budget. - Assesses financial viability of continued development. - Analyzes potential revenue streams and ROI (rate of return).
Legal Counsel	<ul style="list-style-type: none"> - Provides legal advice regarding intellectual property and AI use policies. - Ensures project adherence to legal, ethical, and security standards. 	<ul style="list-style-type: none"> - Reviews licensing and compliance with AI agent use. - Assists in patent protection and intellectual property management. - Advises on terms and conditions for end users. - Monitors compliance with data privacy regulations (e.g., GDPR). - Assesses and mitigates security risks. - Approves security protocols and data handling measures.

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3.2 User Summary

User type	Brief Description	User's responsibilities	Representatives
Personal user	Individuals seeking to leverage AI for personal tasks and communication.	<ul style="list-style-type: none"> - Provide feedback and insights to developers. - Use chatbot ethically and responsibly. - Be mindful of information and data they share with the chatbot. - Use chatbot in various scenarios to test and evaluate. - Report bugs, errors. 	Represent themselves.
Company user	Organization aiming to integrate AI into their operations for productivity and knowledge management.	<ul style="list-style-type: none"> - Provide different prompts and questions to explore chatbot's capabilities and limitations. - Articulate requests and goals clearly and concisely. - Give detailed feedback and reports. - Participate in training sessions to learn how to effectively use the chatbot. - Ensure that the use of the chatbot complies with company policies, regulations, and industry standards. - Identify potential risks associated with the use of the chatbot. - Protect sensitive company data. 	<ul style="list-style-type: none"> - IT Department. - Product Management. - Business Development. - Legal Department.

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3.3 User Environment

1. Personal User:

- a. **Number of people involved in the task:** Typically work alone but may collaborate with others on specific tasks.
- b. **Task cycle:** Task cycles vary widely, from quick queries to extended research sessions.
- c. **Platforms:** Current platforms include PC, laptops (Windows, MacOS), smartphones, tablets (Android, iOS). Future platforms may include smart speakers and wearable devices.
- d. **Other applications:** users may have various applications installed, including messaging apps, social media, and productivity tools. Integration with these apps could enhance the chatbot's utility.

2. Company User:

- a. **Number of people involved in the task:** varies, the chatbot can be used to help employees with their personal tasks or a teams' projects.
- b. **Task cycle:** can range from daily use to long-term strategy planning.
- c. **Platforms:** currently include desktop computers, laptops (Windows, MacOS) and web browsers. Future platforms may include cloud-based tools.
- d. **Other applications:** the company may use a variety of software, project management tools, and analytics software. Integration with these systems can improve workflows and productivity.

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3.5 Alternatives and Competition

The AI chatbot market in 2024 showcases intense competition and new trends, emphasizing advanced language models (LLMs) integrated into various business applications. Below is an overview of current competitive alternatives, including their strengths and weaknesses, as perceived by stakeholders:

1. Competitor products:

1.1. ChatGPT by Open AI:

- **Strength:**
 - Maintains a leading position due to versatility. Ability to create text and images (integrated DALL-E tools), can upload files.
 - Context window up to 32,000 tokens,
 - Human-like conversation capabilities and advanced language processing.
 - Encoding: good performance, accurate encoding
 - Real-time feedback: fast, effective
 - Can access the internet -> update new information in real time
- **Weakness:**
 - Limited customization without in-depth coding skills; dependency on OpenAI's infrastructure may be restrictive for some.
 - With the free package, only basic functions can be used. Limit the number of tokens in 1 chat. And low efficiency.
 - With the paid package, performance is greatly improved. \$20 per month with Google One, includes access to the latest AI models and additional Google services.

1.2. Gemini by Google:

- **Strength:**
 - Recently renamed from Bard to Gemini, this LLM excels in creative writing, coding, and integration with Google's vast ecosystem. Free access and real-time web connectivity add to its appeal.
 - Because it was developed by Google. A big guy owns the most outstanding data source. So the ability to handle languages effectively is ideal for businesses with a diverse and multilingual customer base.
 - Seamless integration with Google Docs, Gmail and other services □ improving productivity for people in the Google ecosystem.
- **Weakness:**
 - **Accuracy Issues:** Reports of "hallucinations" or incorrect outputs remain a significant drawback <https://www.tidio.com/blog/chatbot-statistics/>

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- **Limited Customization Tools:** Unlike some competitors, Gemini lacks an accessible bot-building toolkit for creating custom conversational agents (<https://tech.co/news/best-ai-chatbots>)

1.3. Claude by Anthropic:

- **Strength:**

- **Large Context Window:** Claude's ability to handle up to 200K tokens makes it highly effective for complex document processing and analysis
- **Ethical and Safe Design:** Claude is structured around a "Constitutional AI" framework, emphasizing ethical and responsible responses
- Excels in coding tasks and optical character recognition (OCR), providing accurate and reliable outputs.

- **Weaknesses:**

- **Lacks Customization:** Unlike ChatGPT, Claude does not offer tools for creating personalized bots
- **Competitive Edge:** While strong in context handling, it might not match the broad versatility of models like GPT-4 in creative or niche problem-solving
- **Ethical Considerations :** Low refusal rates, sensitive to ethics

1.4. Poe:

- **Strength:**

- **Multi-bot Interaction:** Poe's standout feature is the ability to engage with multiple AI bots in one chat session. This allows for more comprehensive workflows, such as brainstorming ideas with Claude, coding with GPT-4, and refining outputs with documentation-specific bots.
- **Ease of Use and UI:** Poe's interface is user-friendly, providing a smoother experience compared to other platforms that host multiple LLMs. This makes it appealing for users who need dynamic responses and cross-comparative insights for complex tasks.
- **Customization:** Poe also supports the chaining of bots for extended workflows, catering to users who need to leverage the strengths of different AI models consecutively.

- **Weakness:**

- **Learning Curve:** Managing interactions with multiple bots can be complex, leading to a steeper learning curve and potentially conflicting outputs if not managed well.
- **Subscription Models:** While Poe offers a free version, certain advanced features require a subscription, impacting accessibility for some users.

- ☒ Each of these competitors offers unique benefits tailored to specific needs. ChatGPT and Gemini excel in flexibility and integration, while Claude shines in handling large documents with an ethical approach. Poe.com offers a multi-agent platform ideal for users who need diverse insights. Especially with Poe, the function is almost the same as the product we create, so this can be

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considered the most important competitor.

2. Homegrown Solution:

- Organizations have complete control over features, tailoring chatbots to exact business needs. This flexibility allows for unique points of difference that set the company apart from competitors that use standardized solutions. Also adjusted the maximum number of tokens compared to competitors. Improved performance, and added functionality to the free version.
- **Data Privacy and Security:** A homegrown solution means data handling stays within the organization's control, enhancing compliance with internal and external privacy regulations.
- **Scalability and Integration:** These solutions can be built to integrate seamlessly with proprietary systems, ensuring smooth operations across existing digital infrastructures.
- **Weaknesses:**
 - + **High Development and Maintenance Costs:** Creating an in-house AI solution requires substantial financial investment and can strain resources. It involves not only initial development but also ongoing maintenance, updates, and troubleshooting.
 - + **Time-to-Market Delays:** Developing from scratch is time-consuming, potentially delaying the rollout and impacting competitiveness, especially in fast-moving sectors.
 - + **Expertise Dependency:** Success hinges on the organization's internal capabilities. Limited AI/ML expertise can slow development and lead to suboptimal results

3. Maintaining Status Quo

- **Strengths:**
 - **No Immediate Costs or Resource Allocation:** Opting to maintain current systems avoids the upfront costs associated with development or licensing new technology. This approach can conserve financial and human resources in the short term.
 - **Lower Risk Exposure:** Staying with proven systems reduces the risk of potential disruptions that may occur with the adoption of new, complex technologies. It also allows organizations to monitor emerging technologies without committing too early.
 - **Simplicity in Operations:** Current workflows and employee training remain unchanged, avoiding the productivity dips often associated with onboarding new technologies.
- **Weaknesses:**
 - **Competitive Disadvantage:** Maintaining the status quo can result in falling behind competitors who adopt more advanced, AI-driven solutions. This is particularly relevant as AI becomes integral in enhancing customer engagement and operational efficiency
 - **Missed Efficiency Gains:** AI-powered chatbots and systems can automate and streamline customer interactions, reducing response times and operational costs. Sticking with outdated or manual processes may forfeit these benefits.
 - **Limited Adaptability:** As customer expectations evolve toward quicker, more personalized interactions, existing systems may struggle to keep pace, impacting customer satisfaction and loyalty.

4. Strategic Considerations

- **Homegrown Solutions** are suitable for organizations with the budget, talent, and strategic focus on developing a differentiated, long-term competitive edge. This path is beneficial for industries where data security and proprietary technology are paramount.
- **Maintaining the Status Quo** might be a temporary, risk-averse strategy that works best when

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waiting for market stabilization or technology maturation. However, it can only be justified in environments where customer expectations and market dynamics are slow-moving.

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4. Product Features

No.	Feature	Description	Priority
1	Register an account	Allow users to create the new account with a distinct username and password, then activate the account via email.	High
2	Login	Allow users to log in to their existing account using many options such as passwords, Google, GitHub, etc.	High
3	Logout	Allow users to log out of their current account.	High
4	Recover Password	Allow users to reset their password via the email linked to their account, within a limited number of attempts, for reasons such as changing their password, forgetting it, etc.	High
5	Chat with AI Agents	Allow users to chat with various AI agents, which can be either pre-built agents or custom-created ones. Each message will consume a certain number of tokens depending on the account type.	High
6	Create New Thread Chat	Allow users to create multiple chat threads with different AI agents.	Medium
7	History Browsing	Allow users to search for previous chats by date and time conducted with the current account. Then, users can view the content, continue the conversation, or delete the chat from the history.	Medium
8	Create AI Bot	Allow users to create AI Agents using suggested models or by customizing knowledge data to build an AI bot based on it.	Medium
9	Display/Find AI BOT	Allow users to find AI BOT created by this current account.	Low
10	Update/Delete AI BOT	Allow users to update or delete AI BOT created by this current account.	Low

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11	Update prompt for AI BOT	Allow users to change prompts sent by them before.	Medium
12	Communicate with created AI BOT through Chat Widget	Providing multiple widgets to help users easily chat with AI bots.	Low
13	Preview AI BOT	Showing preview about the selected AI BOT that the users want to chat with.	Low
14	Publish AI Chat Log to social media	Allow users to publish their chat logs with AI BOT to many social media via API key.	Medium
15	Knowledge Data Management	Allow users to add, display, update, delete many knowledge data sources through many platforms such as files, URLs, Google Drive, Slack, etc.	High
16	Prompt Management	Allow users to add, display, update, delete prompt, create a list of favorite prompts. Similarly, allow users to manage private prompts in the same way.	Medium
17	Upgrade Pro Account	Allow users to upgrade their account to Pro for many benefits such as unlimited tokens and ad-free via Bank or e-wallet.	High
18	Monetization	This feature allows the system to display advertisements to free users and earn revenue from third-party advertisers. The free users must watch advertisements to continue chatting with AI BOT.	Medium
19	Photo Chatting	Allow users to send pictures in many ways to AI BOT, then AI BOT will analyze this picture and respond to user's requirements.	High
20	Email with AI BOT	This feature helps users draft emails for specific types of correspondence, suggests appropriate words and phrases, and generates a complete email.	Medium

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5. Non-Functional Requirements

Non Functional Requirement
Graphics are user-friendly, easy to use, and there are no frills.
The time needed to answer is smaller than 1 minute
The time needed to upload files smaller than 1 minute dependent on size of file.
When errors appear, the system can allow users to select another type of AI
The system needs to protect information from users.
The website use in many platform

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6. REFERENCES:

- [1] [ChatGPT vs Gemini vs Claude: Which AI Model is Best for You?](#), November 13th, 2024,
- [2] [13 Best AI Chatbots in 2024: ChatGPT, Gemini & More Tested](#), November 13th, 2024.
- [3] [80+ Chatbot Statistics & Trends in 2024 \[Usage, Adoption Rates\]](#), November 13th, 2024.
- [4] [Poe adds feature to use multiple AI bots in a single chat](#), November 13th, 2024.
- [5] [Poe's Multi-Bot Chat: A Game-Changer in AI Interactivity](#), November 13th, 2024.
- [6] [ROI là gì? Ý nghĩa và công thức tính ROI trong tài chính](#), November 13th, 2024.