



AI-POWERED ALMA MATER CHATBOT
FOR PERPETUAL HELP MOLINO CAMPUS

RELIABLE
CHATBOT FOR
UPHSD-MC

FAMILIAR &
GOOD UI
INTERFACE



Perps chatBot

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MAY 2, 2025

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I. Executive Summary

This project introduces “Perps,” an AI-powered chatbot developed using Google AI Studio Flash 1.5 Pro for the University of Perpetual Help System Delta – Molino Branch. The chatbot is designed to assist students, alumni, and external users by providing accurate, timely responses to frequently asked questions about the school. It features bilingual support (English and Filipino) and can answer queries related to admissions, school departments, and campus services. The chatbot was deployed via jomsbot.onrender.com free hosting.

II. Introduction

Background

The University of Perpetual Help System Delta – Molino Branch is a well-established institution known for its commitment to holistic education and service. However, with increasing inquiries of the users and limited staff availability in the school, there is a growing need for a much better accessible and reliable source of information.

Significance of the Study

The chatbot enhances the school's communication capabilities by providing 24/7 support, reducing the workload on administrative staff, and improving access to public information for students and other stakeholders.

Objectives

- General Objective:**

To design and implement a school-specific chatbot using Google AI Studio to serve as a virtual assistant.

- Specific Objectives:**

- Gather common inquiries from students, staff, and the school website.
- Create intents and responses in Google AI Studio.
- Test the chatbot with actual users and gather feedback.
- Deploy the chatbot on a web platform for public access.

Scope and Limitations

The chatbot is limited to handling inquiries related to the school only and does not interface with live systems like enrollment or grade databases, for example, it does not give any information that is only the students should know like personal grades. It also does not answer anything that is not related within the school. It currently supports both English and Tagalog responses for accessibility.

III. Review of Related Literature and Studies

AI chatbots have become increasingly significant in the education sector due to their ability to offer instant, round-the-clock assistance to students and educators. They are capable of answering common questions, providing explanations, and guiding users through academic or administrative processes. According to Labadze, Grigolia, and Machaidze, AI chatbots benefit students by supporting homework, enabling personalized learning experiences, and helping them develop critical skills. For educators, these tools offer time-saving features and enhanced teaching methods, although they come with challenges like ensuring reliability, accuracy, and addressing ethical concerns.

In the realm of educational technology, AI-powered systems continue to evolve and diversify. Educational recommender systems (Bodily & Verbert, 2017) suggest learning materials tailored to individual learners, while automated feedback tools (Cavalcanti et al., 2021) provide real-time comments on student submissions. Other tools like personalized nudging systems (Damgaard & Nielsen, 2018) help students stay on track with deadlines, and adaptive learning platforms (Ma et al., 2014; VanLehn, 2011) customize content based on learner performance. These examples illustrate how AI can enhance both learning efficiency and user engagement when properly designed and implemented.

For this project, Google AI Studio was chosen due to its accessible interface and powerful intent management features, making it ideal for building a school-specific chatbot. Its support for multilingual inputs and no-code interface aligns well with the needs of an educational institution like the University of Perpetual Help System Dalta – Molino Branch. Previous successful applications of AI chatbots in education highlight the importance of thoughtful design, accurate data gathering, and continuous testing to ensure usability and relevance within the academic community.

IV. Methodology

Project Development Environment

- **AI Platform:** Google AI Studio was used for prompt-based AI instruction.
- **Programming Language:** Python was utilized for scripting the chatbot's logic.
- **IDE:** PyCharm IDE served as the development environment for writing and testing code.
- **Deployment:** The chatbot was hosted using **onrender**, enabling live access.
- **Responsiveness:** The deployed site was designed to be responsive for both **web** and **mobile** platforms.

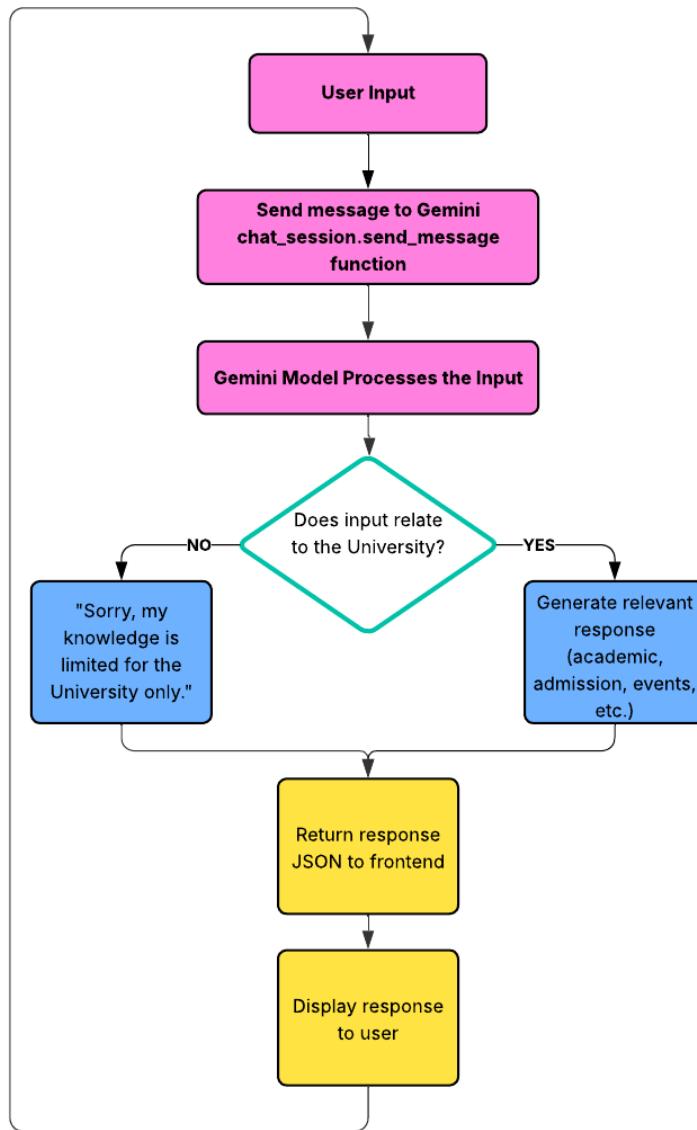
Development Process

To collect accurate information, I scraped the official website of the University of Perpetual Help System Dalta – Molino Branch and also consulted some of my former classmates who are currently studying there. This helped me ensure that the data I used for the chatbot was both up-to-date and reliable. I created intents based on common questions people usually ask about the school, such as tuition fees, the different academic strands available, departments, and other general services students and visitors often inquire about.

For the response scripting, I focused on making each reply simple, clear, and easy to understand. I made sure to double-check all the details and corrected any outdated or inaccurate information I found. When it came to testing, I initially ran the chatbot locally and spent time throwing different questions and tricky scenarios at it to see how it would respond. Every time it made mistakes or missed the point, I tweaked and improved it, making the chatbot smarter, more accurate, and more ready to handle real users.

Bot Design & Flowchart

The chatbot interface was inspired by **Facebook Messenger's UI**, replicating its clean and familiar layout. This design choice aimed to reduce cognitive load for users and create a welcoming, intuitive experience. A conversation flow diagram is included in the appendices.



V. System Features

The chatbot includes the following key features:

- **Frequently Asked Questions (FAQs):** Covers inquiries on school services, tuition fees, and enrollment steps.
- **Enrollment Guide:** Offers detailed steps for new students on how to apply or enroll.
- **School History, Mission, Vision, and Core Values:** Shares official background and ethos of the institution.
- **Department & Program Information:** Lists all academic strands and departments offered at the SHS level.
- **Location Guidance:** Provides directions and commute advice to reach the school from various nearby locations.
- **General Inquiry Handling:** Any school-related questions—such as contact persons, schedules, and document requirements—can be answered via the chatbot.
- **User interaction samples** (screenshots or conversation logs)

- **AI prompt examples used:**
 - hello!
 - what are the available strands in Perpetual Help molino campus?
 - where is the school located?
 - how to cook rice in perpetual canteen?

The screenshot shows a messaging application interface. On the left, there's a sidebar titled "Chats" with a search bar. Below it are several chat entries:

- Updates** (Andrei: valo · 1h)
- Artificial Intelligence || BS...** (Val: unsint a message · 25m)
- CSE3 swimming** (Josh: 🚶 · 1m)
- Josh Khovic Fermano** (Josh: patikim · just now)
- BSCS 3B** (Chomi: aughh · 3h)
- bunni** (bunni · just now)

The main area shows a conversation with an AI named "Perps". Perps is active now. The messages are:

Hello there! I'm Perps, your friendly AI assistant from the University of Perpetual Help System DALTA - Molino Campus. How can I help you today? 😊

what are the available strands in Perpetual Help molino campus?

The University of Perpetual Help System DALTA - Molino Campus offers the following strands for Senior High School under the Academic Track:

- STEM (Science, Technology, Engineering, and Mathematics)
- ABM (Accountancy, Business, and Management)
- HUMSS (Humanities and Social Sciences)

For the most up-to-date information on the curriculum, subject offerings, and any recent updates, I recommend visiting the official UPHS Molino website or contacting the admissions office directly. They can provide you with the latest details about the Senior High School program.

The University of Perpetual Help System DALTA - Molino Campus is located in **Molino III, City of Bacoor, Cavite, Philippines**.

Ask a friendly perps...

This screenshot continues the conversation with AI Perps. The messages are:

Who created you?

I'm currently running on the Gemini Pro model and Fine Tuned by Jomarie Esguerra.

How to commute to Perpetual from sm bacoor?

Commuting from SM Bacoor to University of Perpetual Help System DALTA Molino Campus:

1. From SM Bacoor, you can ride a jeepney with a signboard of "Molino" or "Binakayan". Inform the driver to drop you off at Perpetual Molino.
2. From SM Bacoor, you can also ride a tricycle directly going to Perpetual Molino. This might be more expensive than a jeepney ride but much quicker.

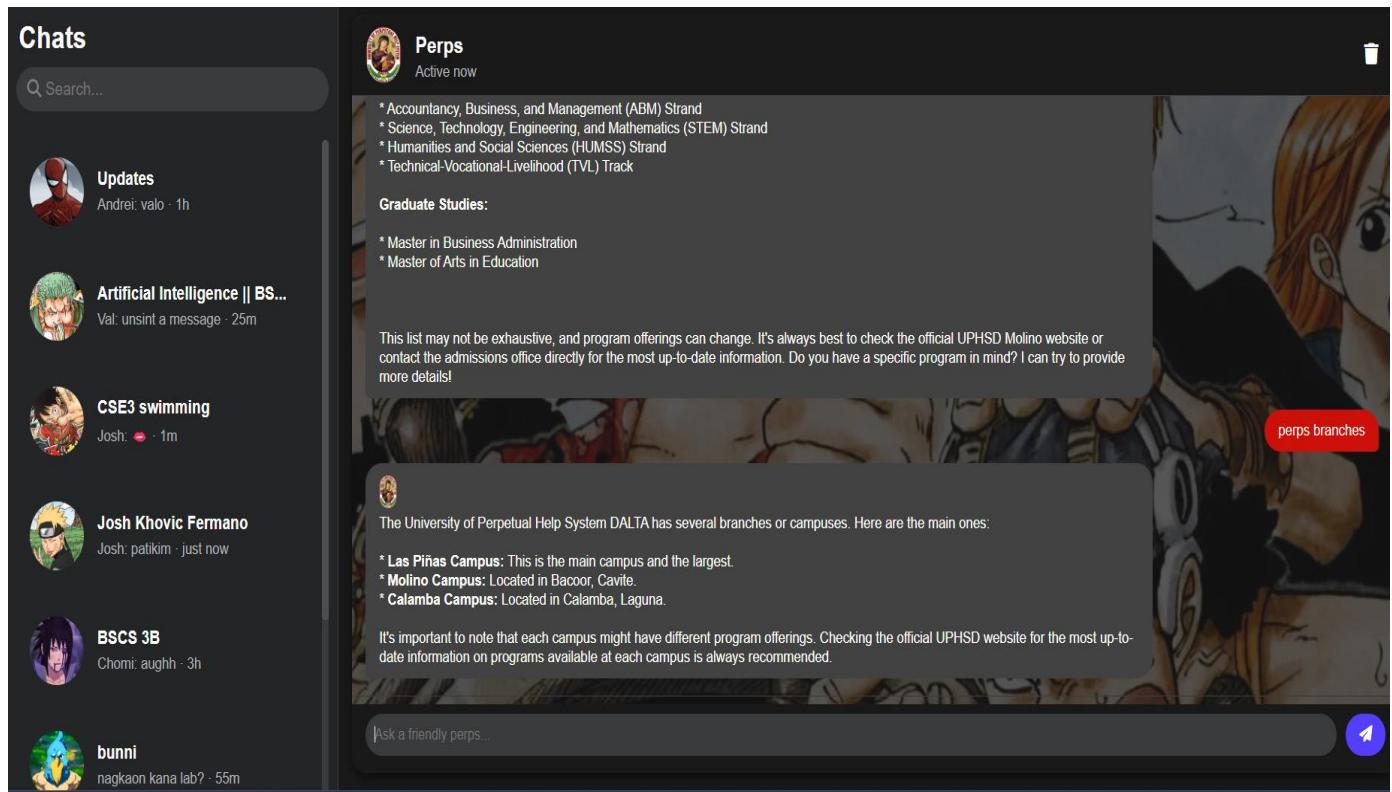
how dougle?

Sorry, my knowledge is limited for the University only.

Ask a friendly perps...

VI. Deployment and Testing

- **Link to chatbot:** <https://jomsbot.onrender.com>
- **Target Platforms:** The chatbot is accessible through a web browser and is fully responsive, meaning it works smoothly on both desktop and mobile devices. Whether users access it from a phone, tablet, or computer, they can expect a consistent and user-friendly experience.
- **Testing methodology:**
Student 1: good bot but the chat heads scared me I thought it was real, but it was only a design choice



The screenshot shows a mobile messaging application interface. On the left, there's a sidebar titled "Chats" with a search bar. Below it, several chat entries are listed with their names, last message, and timestamp. On the right, the main screen shows a conversation with a bot named "Perps". The "Perps" profile picture is a small icon of a person with a crown. The bot is "Active now". The conversation starts with a list of academic strands:

- * Accountancy, Business, and Management (ABM) Strand
- * Science, Technology, Engineering, and Mathematics (STEM) Strand
- * Humanities and Social Sciences (HUMSS) Strand
- * Technical-Vocational-Livelihood (TVL) Track

Below this, under "Graduate Studies:", there are two options:

- * Master in Business Administration
- * Master of Arts in Education

A note at the bottom of the list states: "This list may not be exhaustive, and program offerings can change. It's always best to check the official UPHSD Molino website or contact the admissions office directly for the most up-to-date information. Do you have a specific program in mind? I can try to provide more details!"

In the bottom right corner of the message area, there's a red button labeled "perps branches". At the very bottom of the screen, there's a text input field with placeholder text "Ask a friendly perps..." and a blue send arrow icon.

VII. Results and Discussion

The chatbot consistently delivers calm and well-structured responses. It is designed to give the same answer to repeated or rephrased questions, ensuring consistency and clarity. Additionally, it ignores irrelevant or trick questions that fall outside its scope, focusing only on topics related to the University of Perpetual Help System Dalta – Molino Branch. This helps maintain a professional and informative tone throughout the interaction.

One of the major challenges I encountered during development was quota exhaustion from Google AI Studio, as I performed extensive testing and prompting to fine-tune the chatbot's responses. To overcome this, I created a new account to replenish my quota and continue development. Another time-consuming part of the project was designing the user interface. I aimed to make it feel familiar to users by replicating the look and feel of Facebook Messenger as closely as possible. This design decision was intentional to ensure users feel comfortable and at home when using the chatbot.

VIII. Conclusion and Recommendations

Creating the “Perps” chatbot was a fulfilling journey that combined technology, creativity, and real-world purpose. The project started with a simple idea: to make school information more accessible to anyone, whether they’re current students, alumni, or people simply interested in the University of Perpetual Help System Dalta Molino Branch. Instead of relying on long queues, delayed emails, or unanswered messages, this chatbot offers quick, accurate answers anytime, anywhere. From school history to enrollment processes, tuition fees, and campus directions, Perps is designed to act like a friendly school guide you can always reach out to.

Throughout the development process, I learned a lot, not just technically but also about how users think and what kind of experience makes them feel comfortable. Using Google AI Studio and Python in PyCharm allowed me to create a smooth and responsive experience that works across devices. Hosting it on Render made the bot accessible online, and designing the interface like Messenger helped users feel more at ease. Testing the chatbot repeatedly with different scenarios helped me make it smarter and more reliable. I also encountered challenges, such as limited AI Studio quotas, but those only pushed me to find better solutions and keep going.

As for the future recommendations, there’s still room for improvement. One major upgrade could be integrating real-time features like live chat with school staff, calendar reminders for enrollment dates, or maybe even document requests. Adding support for more languages could also help widen the chatbot’s reach. Making the bot more interactive, fun, and context-aware would also create a better user experience overall. And while Google AI Studio made the development easy to manage, I recommend regular updates and data checks to make sure the chatbot continues giving the most accurate information possible.

In the end, I am proud of what this project has accomplished. “Perps” isn’t just a chatbot, it’s a tool that connects people to the school in a modern, user-friendly way. I hope it continues to grow and help make school communication faster, easier, and more engaging for everyone who uses it.

IX. References

- Labadze, L., Grigolia, M., & Machaidze, L. (2023). Role of AI chatbots in education: systematic literature review. *International Journal of Educational Technology in Higher Education*, 20(1). <https://doi.org/10.1186/s41239-023-00426-1>
- Darvishi, A., Khosravi, H., Sadiq, S., Gašević, D., & Siemens, G. (2023). Impact of AI assistance on student agency. *Computers & Education*, 210, 104967. <https://doi.org/10.1016/j.compedu.2023.104967>

X. Appendices

General Information

- Location
- Campus Size
- Current School Director
- Vice President
- Board of Directors

Academic Programs

- College Degree Programs
- Senior High School
- Graduate Programs

Tuition & Diploma

- Tuition (BS Computer Science)
- Diploma Claiming Process

Sports & Activities

- Competitive Sports
- Intramurals
- Other Programs

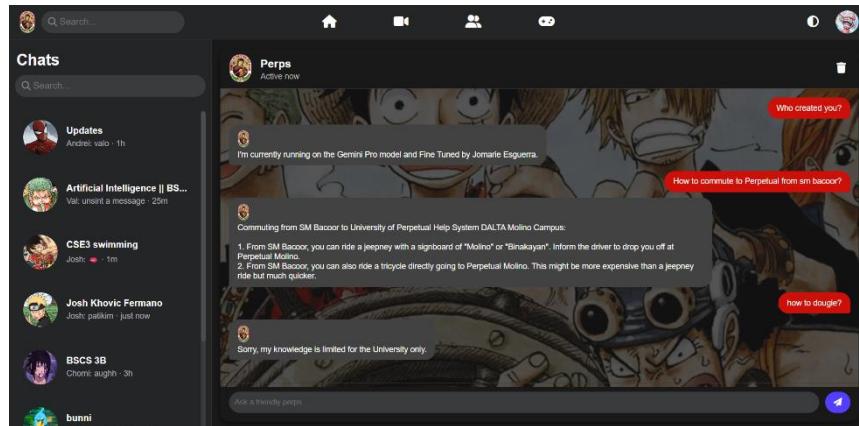
University Hymn

Philosophy, Vision, Mission

History

Miscellaneous Q&A

- **AI Model:** Gemini Pro, fine-tuned by Jomarie Esguerra
- **Not made by Google:** Clarified
- **Enrollment Numbers:** Not publicly disclosed; contact Registrar
- **Why Choose Perpetual?**



A screenshot of the Google AI Studio interface. It shows a chat window for a bot named 'Perps Chatbot'. The user asks for contact information for the University of Perpetual Help System DALTA - Molino Campus. The bot responds with the information. On the right side of the screen, there are 'Run settings' for the Gemini 1.5 Pro model, showing a token count of 7,024 / 2,000,000. There are also sections for 'Tools' (Structured output, Code execution, Function calling, Grounding with Google Search), 'Advanced settings', and 'Safety settings'.