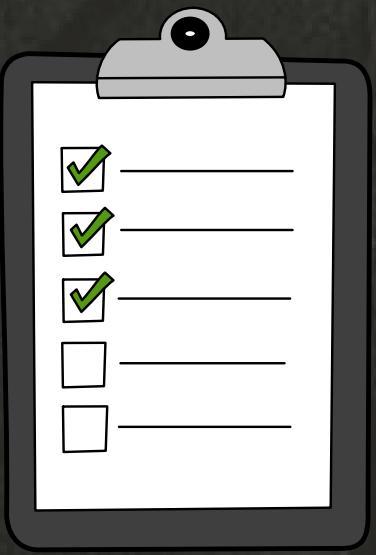


# MATH WARE



**MAKING THE ONLY HARD AT "FMAT" THE MATHS**

# MAIN OBJECTIVE



CREATE AN APPLICATION TO HELP NEW STUDENTS AT THE  
FACULTY OF MATHEMATICS OF UADY (UNIVERSIDAD  
AUTONOMA DE YUCATAN) WITH COMMON QUESTIONS,  
MAKING THIS A VALUABLE TOOL FOR THEIR ADAPTATION TO  
THE INSTITUTION.

# USERS

For this project, we are focusing on first-year students of the Faculty of Mathematics from UADY. However, any student from the university and the Exact Sciences Engineering campus will be able to use this app



PRIMARY

- ❖ New students of FMAT



SECUNDARY

- ❖ Non-FMAT students

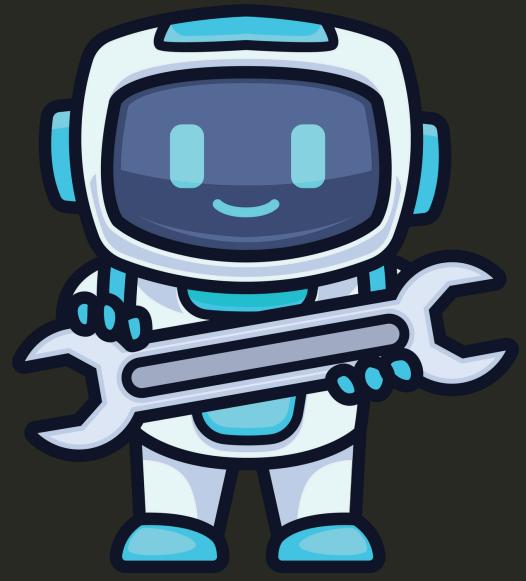


POTENTIAL

- ❖ Teachers and students family

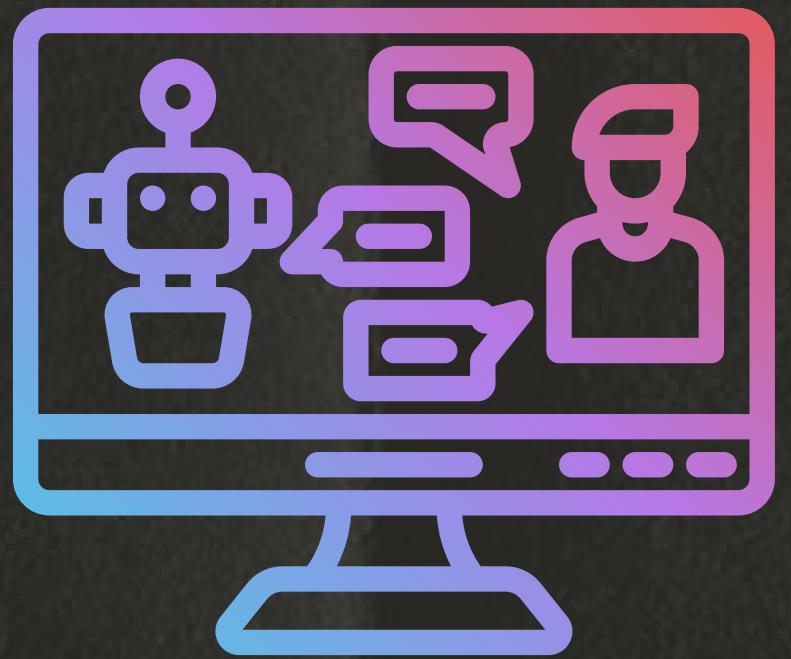
# VALUE PROPOSITION

Our project consists of creating an application with an automated bot capable of answering frequently asked questions that new students of FMAT may have, using information directly provided by the institution's staff, ensuring it is as up-to-date as possible."



The app will store all the necessary information in one place, enabling users to answer all their questions related to FMAT without the need to visit multiple sites, synthesizing all the requested information making it less confusing.

This application is based on the issues faced by many first-year students, such as the difficulty of obtaining information related to the faculty, like: Where is this classroom? How do I request a certificate? What type of courses should I take? and others



Our proposal has the value of addressing the problem of the first-year students obtaining information related to the faculty, being not only helpfull in the present but also in the future.



# REQUIREMENTS

## FUNCTIONAL REQUIREMENTS:



- The ability to understand (The chat bot must interpret and understand natural language)
- Extra language (Chat must be able to support multiple languages, if necessary)
- Recognize keywords (The bot must be able to understand keywords relevant to the context of the conversation)
- Textual and visual responses (If possible, the responses given by the bot would not only be textual, it should also be able to respond with images or links)
- Oral response (The bot is able to read you the information given)
- Clarification messages (The bot, not understanding the topic, should ask to be more specific and/or clear)
- Suggestion messages (Suggested or most frequently asked questions will be shown in each section)
- Different ways of receiving information (In addition to expressing the doubt in text form, you should also be able to listen to how you dictate your question and thus answer it)
- Questions (The ability to ask additional questions to clarify queries if you did not receive the information)
- Default section (When you enter the bot app, you should already be in a default section where general doubts will be resolved)
- Depending on the context (The bot is divided into 3 sections, each with a specific topic, when you ask something in the wrong section, it must suggest or redirect you to the corresponding section)
- Wait (If the user is slow to respond, the chat should prompt them to continue the conversation or end it)
- Tutorial (When starting the application for the first time or after a significant update, the system should provide an interactive tutorial that guides the user through the main functions)

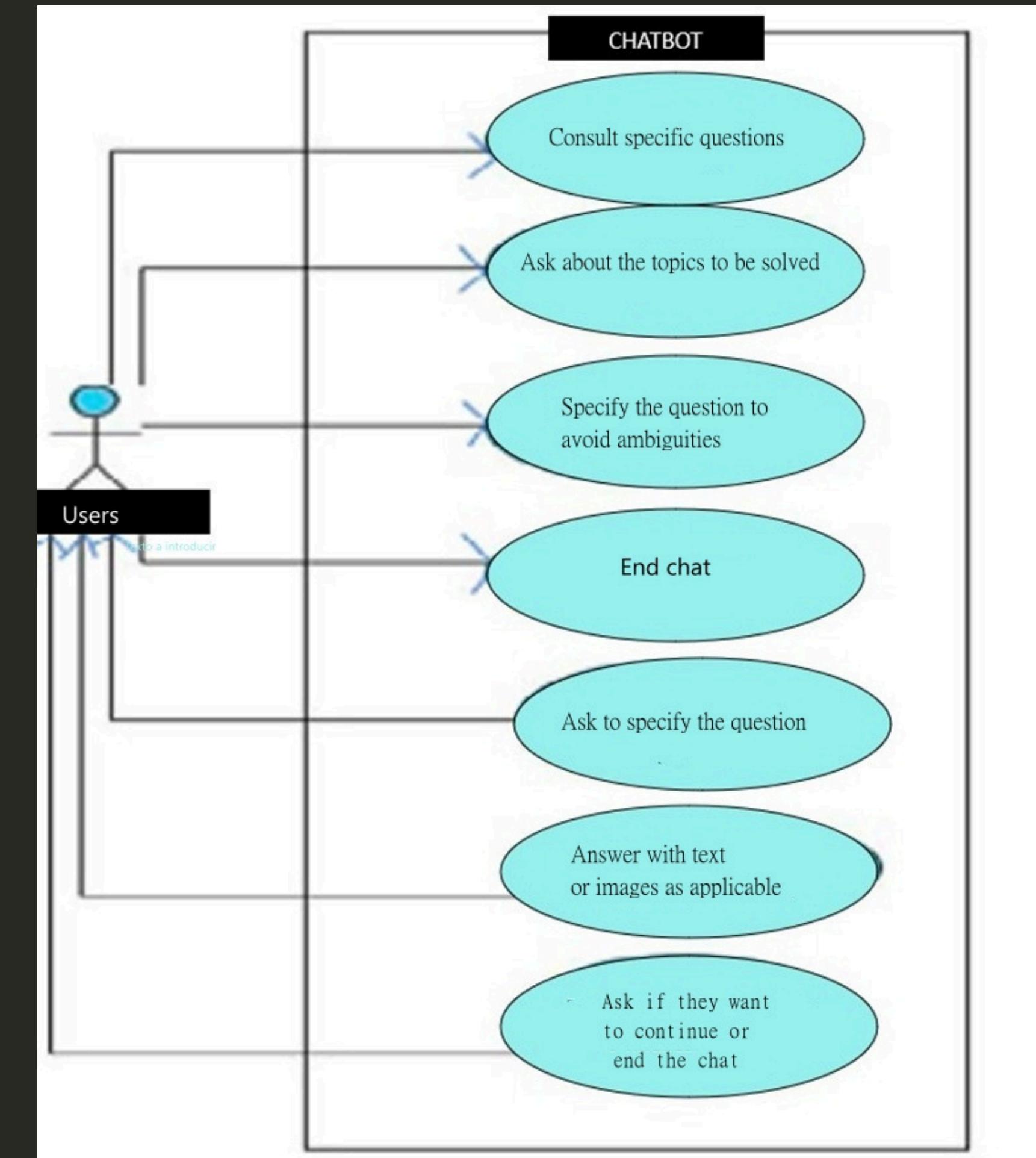
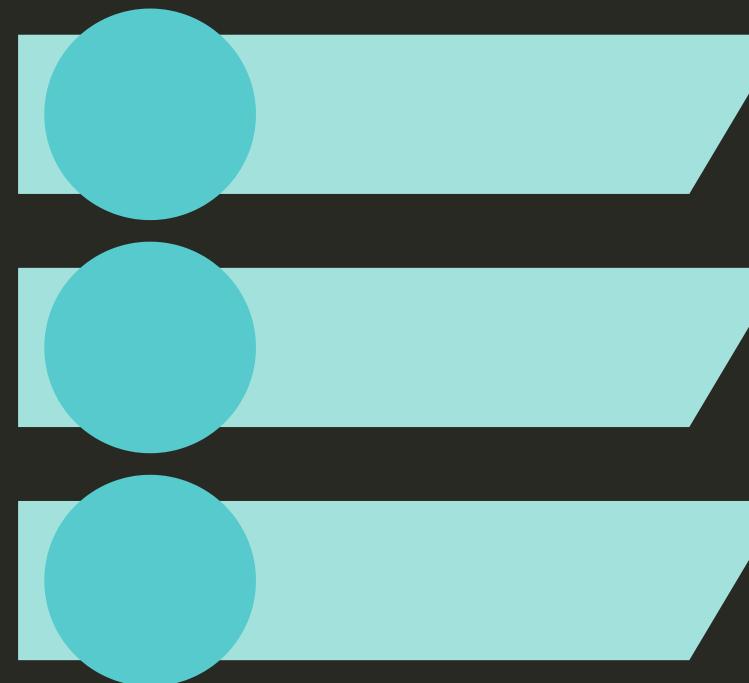
# NON-FUNCTIONAL REQUIREMENTS:

- Animations (The system will have animations to make the chat more interactive)
- Intuitive (The system must be intuitive and easy to use)
- Understandable code (The code must be documented and understandable so that anyone can understand and/or modify it)
- Compatible (Should be compatible with multiple operating systems)
- Fast response (Must be able to respond in real time or with minimal latency)
- Capacity (Handle multiple users simultaneously without a drop in performance)
- Suggestions (When writing the question the chat will try to predict the question and autocomplete it)



Prioritization- User Stories					
<b>Bot.01</b>	Answer questions from FMAT UADY students				
<b>Dependencies</b>	<ul style="list-style-type: none"> <li>• Resolve student's doubts</li> <li>• Try to provide the best doubt services</li> <li>• Give the required and coherent response</li> <li>• Correct information</li> </ul>				
<b>Precondition:</b>	The student must express his doubt according to the topic to which it is related.				
<b>Description:</b>	The system must work and resolve the question raised as in the following case:				
<b>Normal sequence</b>	<ol style="list-style-type: none"> <li>1. Tutorial (When starting the application for the first time or after a significant update, the system should provide an interactive tutorial that guides the user through the main functions)</li> <li>2. Default section (when you enter the bot app, you should already be in a default section where general doubts will be resolved)</li> <li>3. Suggestion messages (suggested or most frequently asked questions will be shown in each section)</li> <li>4. Depending on the context (the bot is divided into 3 sections, each with a specific topic, when you ask something in the wrong section, it must suggest or redirect you to the corresponding section)</li> <li>5. Clarification messages (the bot, not understanding the topic, should ask to be more specific and/or clear)</li> <li>6. Textual and visual responses (if possible, the responses given by the bot would not only be textual, <u>it</u> should also be able to respond with images or links)</li> </ol>				
<b>Postcondition:</b>	The information requested by the user is not found				
<b>Exceptions</b>	<table border="1"> <thead> <tr> <th>Steps</th><th>Action</th></tr> </thead> <tbody> <tr> <td>6</td><td> <p>By asking the question and not finding the correct information</p> <p>A.1 The system informs the user of the lack of information  A.2 The system provides the coordinator's email to clarify the doubt  A.3 Ask if you want to continue or finish</p> </td></tr> </tbody> </table>	Steps	Action	6	<p>By asking the question and not finding the correct information</p> <p>A.1 The system informs the user of the lack of information  A.2 The system provides the coordinator's email to clarify the doubt  A.3 Ask if you want to continue or finish</p>
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6	<p>By asking the question and not finding the correct information</p> <p>A.1 The system informs the user of the lack of information  A.2 The system provides the coordinator's email to clarify the doubt  A.3 Ask if you want to continue or finish</p>				
<b>Comments:</b>	It will only apply when the information requested is private for the institution, so the chat does not have access to that information, such as knowing your enrollment and average, among other data.				

# USE CASE DIAGRAM:



# **GENERIC SKILLS:**

- Planning.
- Discipline.
- Develop solutions
- Responsibility and commitment.
- Participation of each member.



# **SPECIFIC COMPETENCIES:**

- **Analysis and Continuous Improvement Capacity:** Evaluate the performance of the chatbot and make adjustments based on the project, present diagnostic tests with people and improve as necessary.
- **Communication Skills:** Being able to work as a team and communicate ideas effectively is essential for collaborative development of complex ideas in a clear and concise manner, both within the development team and with end users.
- **Problem Solving:** Ability to identify and solve technical and design problems that may arise during chatbot development
- **Collaboration and Teamwork:** Work effectively with other team members who will have their roles, such as the designer and programmers, to ensure that the chatbot meets the project objectives

**THANK YOU**