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ARTIFICIAL

INTELLIGENCE

PROJECT TITLE

CREATE A CHATBOT IN PYTHON

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DEPT: COMPUTER SCIENCE & ENGINEERING

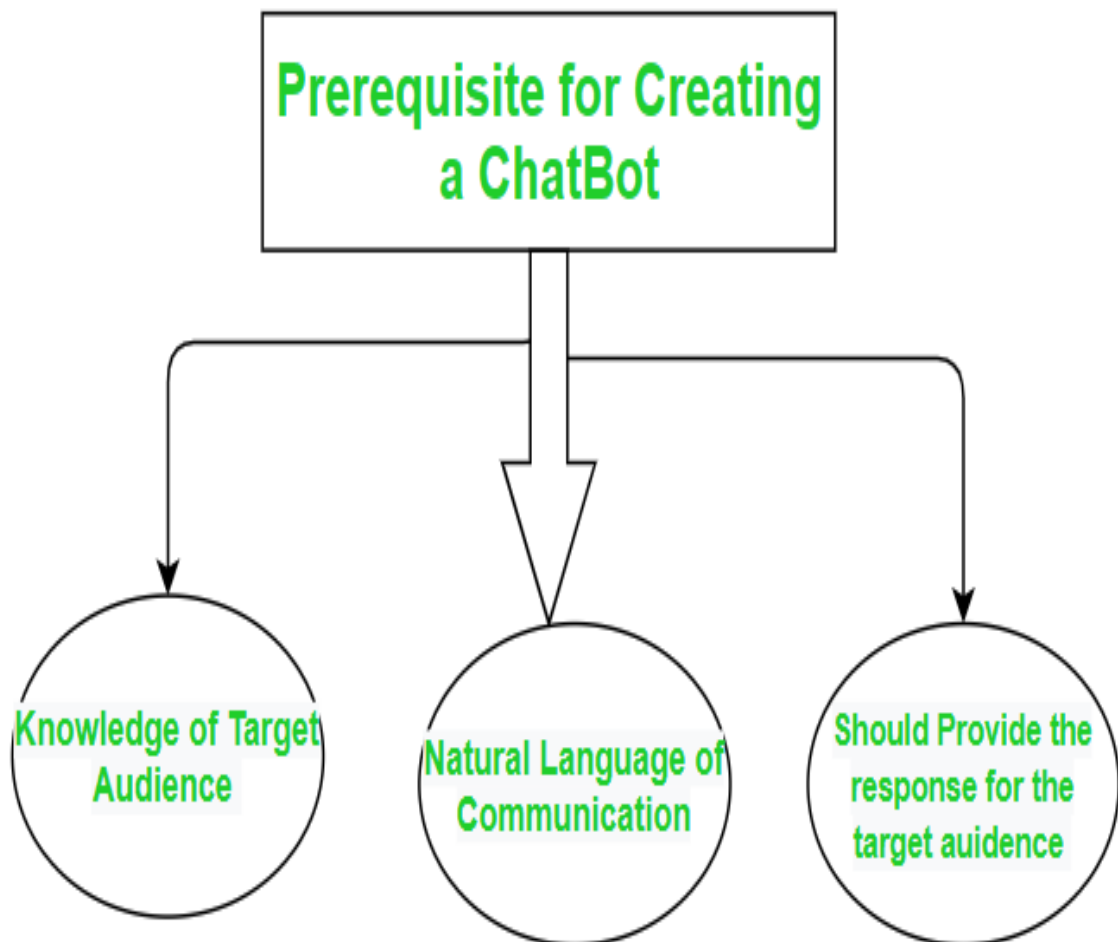
YEAR & SEM: 3RD & 5TH

**COLLEGE: PARK COLLEGE OF ENGINEERING AND
TECHNOLOGY**

PHASE 2

INNOVATION

DESIGN THINKING:



KNOWLEDGE OF TARGET AUDIENCE:

- Understanding your target audience is crucial when developing a chatbot in Python. To gather knowledge about your target audience.

Define Your Audience:

Identify who your chatbot is intended for. Consider demographics, interests, and needs.

Conduct Surveys or Research:

Collect data through surveys, user interviews, or market research to gain insights into your audience's preferences and pain points.

Create User Personas:

Develop fictional characters that represent different segments of your audience. This helps in visualizing and understanding their needs.

Analyze User Data:

If you have an existing platform or website, analyze user data to learn about user behavior and preferences.

User Testing:

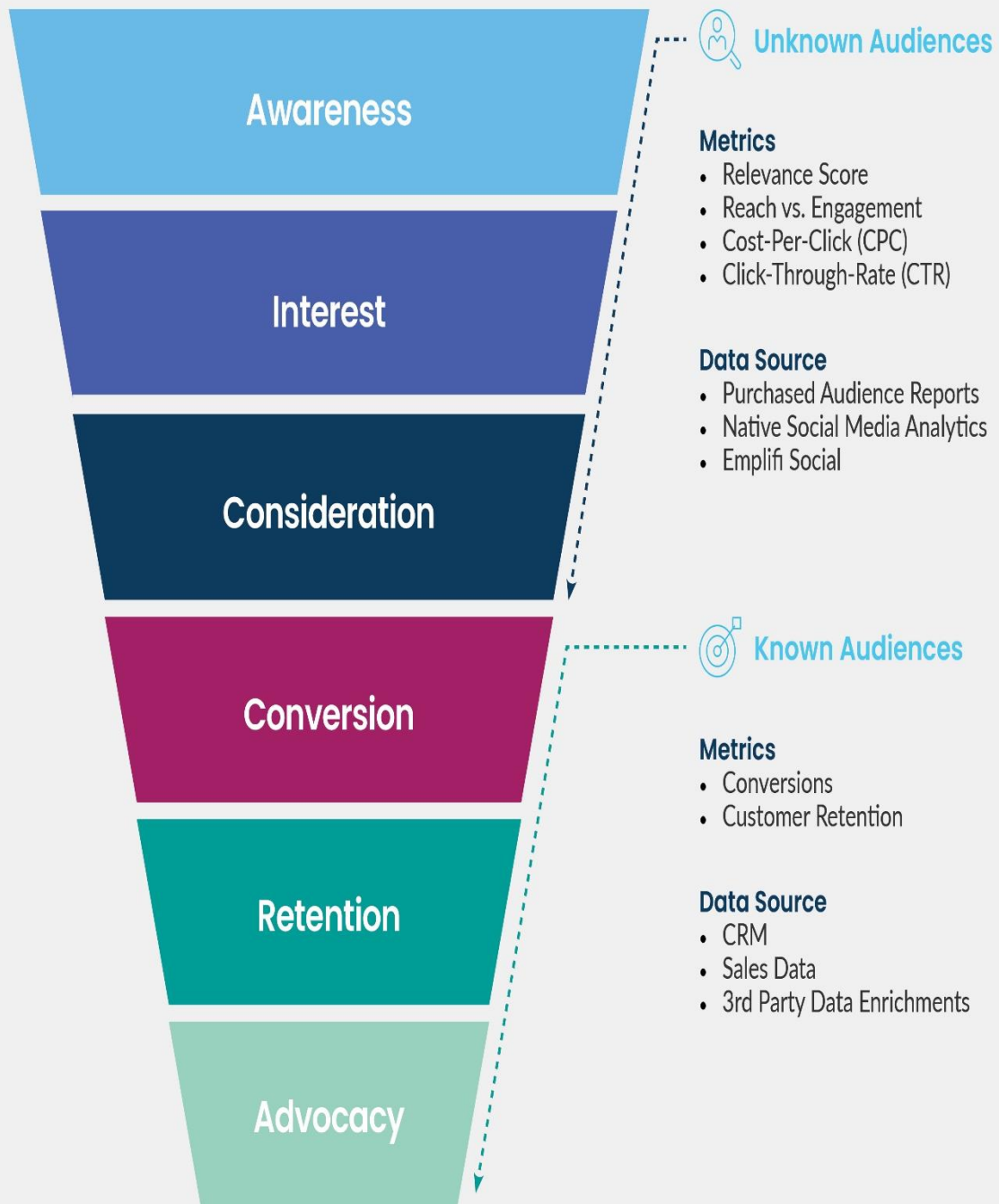
Involve real users in the development process to get feedback and adjust the chatbot accordingly.

Use Analytics Tools:

Implement analytics tools to track user interactions with your chatbot, allowing you to gather data on user behavior.

- ❖ Once you understand your target audience, you can tailor your chatbot's responses, tone, and features to better serve their needs and provide a more personalized experience.

How to understand audience types across the customer lifecycle



NATURAL LANGUAGE OF COMMUNICATION:

In natural language communication with a chatbot, the goal is to make the interaction between the user and the chatbot feel as human-like as possible. This involves using natural language, which means the chatbot should understand and generate responses in a way that is similar to how humans converse. Here are some key aspects of natural language communication in chatbots:

Natural language processing:

The chatbot should be able to understand and interpret the user's messages in a way that doesn't require users to use rigid, pre-defined commands.

Natural language understanding (NLU) and natural language processing (NLP) techniques are used to process and comprehend user input.

Conversational Flow:

The chatbot should engage in back-and-forth conversations that mimic human dialog. It should understand context and maintain the flow of the conversation.

Context Awareness:

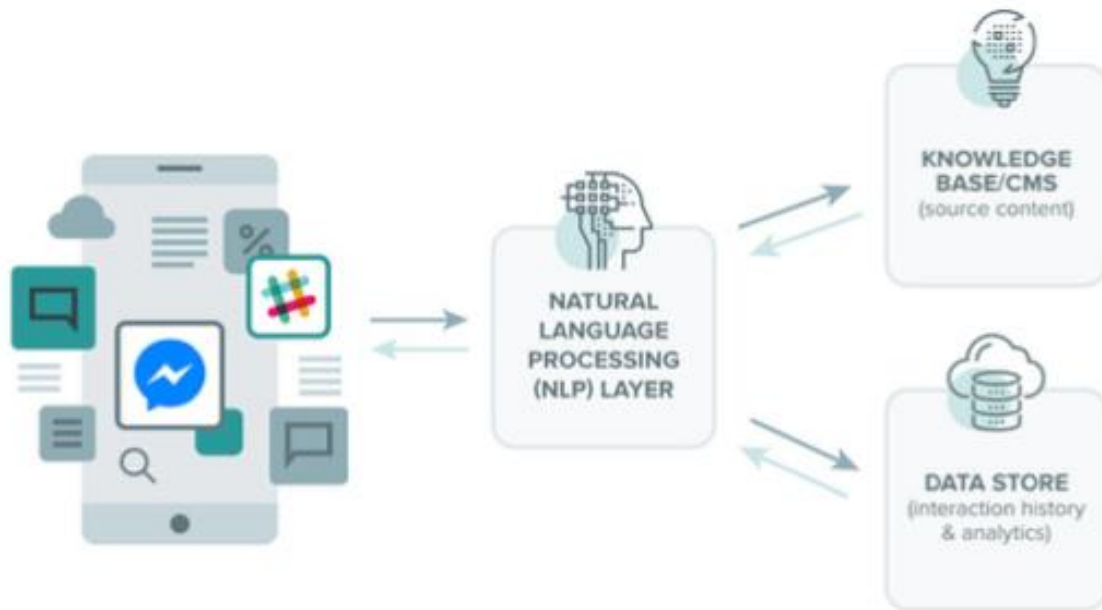
A natural language chatbot should remember the context of the conversation, including previous messages and user preferences. It should be able to reference previous messages and responses.

Sensitivity to Ambiguity:

Natural language is often ambiguous, and users may not provide explicit or complete information. Chatbots should be able to handle ambiguous queries and ask clarifying questions when necessary.

Deliver Responses:

Send the chatbot's response back to the user in a natural and human-readable format.



SHOULD PROVIDE THE RESPONSE FOR THE TARGET AUDIENCE:

Absolutely, providing responses that are tailored to the specific target audience is a crucial aspect of creating an effective and user-centered chatbot. To do this, you should consider the following:

Audience Understanding:

Understand the demographics, preferences, and needs of your target audience. You may

need to create user personas to represent different segments of your audience.

Personalization:

Tailor responses based on the user's profile or behavior. For example, address the user by name, remember their previous interactions, and provide content or recommendations that align with their interests.

Language and Tone:

Use language and a tone that resonates with your audience. If your chatbot is targeting a younger demographic, you might use informal language and emojis. For a professional audience, a more formal tone may be appropriate.

Content Relevance:

Ensure that the information or responses provided are relevant to the user's context and needs. This might involve offering

different responses or content based on the user's history or preferences.

Localization:

If your chatbot is used in different regions, consider localization. Provide responses in the user's preferred language and offer content that is culturally appropriate.

