

# **Problem definition**

## **Problem Statement:**

Many customers shopping on e-commerce platforms face challenges and inconveniences during their shopping experience, such as difficulty in finding products, lack of personalized recommendations, unclear product information, and limited support options. These issues often result in reduced customer satisfaction, increased cart abandonment rates, and lost sales opportunities for e-commerce businesses. To address these problems, there is a need for an intelligent and efficient chatbot solution in the e-commerce industry that can provide seamless assistance, enhance user experience, and drive higher conversion rates.

## **Objective:**

Enhance customer experience,

Increase sales,

Reduce cart abandonment by providing personalized product recommendations,

Quick answers to queries,

Seamless shopping assistant.

## **Response Configuration**

1. Prompted Information: Ensure the chatbot responds directly to user queries or prompts, providing relevant and concise information. This includes product details, pricing, availability, and answers to common customer questions.
2. Personalization: Tailor responses based on user preferences and behavior. Use past interactions and browsing history to offer personalized recommendations, discounts, and product suggestions.
3. Variety in Responses: Avoid repetitive responses by creating a variety of answers to common questions. Use synonyms, alternate phrasing, and templates to keep interactions engaging and informative.
4. Clear Calls to Action: Include clear and actionable next steps in responses. For example,

if a user inquires about a product, the chatbot should provide options to view more details, add it to the cart, or explore related items.

5. Error Handling and Escalation: Design responses to handle errors or situations where the chatbot cannot provide a satisfactory answer. Offer options for users to escalate to human support if needed, ensuring a smooth transition for complex inquiries.

## **User Experience**

1. Clear Call-to-Action (CTA): Ensure that users can easily understand the next steps and options available in the chatbot, such as "View Product," "Add to Cart," or "Ask for Help."

2. Responsive Design: Ensure that the chatbot works seamlessly on both mobile devices and desktops, adapting to different screen sizes.

3. Quick Responses: Optimize response times to keep users engaged and prevent frustration. Users should receive timely answers to their queries.

4. Feedback Mechanism: Include a way for users to provide feedback on the chatbot's performance, helping you continuously improve its effectiveness.

5. Emulate Human Conversation: Aim for a chatbot that engages users in a human-like conversation, with natural language processing (NLP) capabilities

## **Design Thinking:**

### **Personal Design:**

A chatbot persona is like the soul of our chatbot, a carefully crafted character that embodies the tone, voice, and personality of your virtual assistant. Name – Ibgram  
Voice – Male/Female (john/medona) Tone - Flexible  
Communication style - Assertive

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### **User Scenarios:**

When the users are interacting with the chatbot.

The frequent questions asked by the users like forgot password.

Conversation help

Feedback of the chatbot experience

### **Response Configuration:**

The response of the chatbot is under three stages of processing

- o Intent detection – to identify the overall idea of the query.
- o Entity detection – to identify the keyword of the query and fetch sub parts of the query.
- o Irrelevant detection – to identify the query given by the user is query or not.
- o Auto error correction – to auto correct the human errors. (forgot

## **Platform Integration**

To integrate with the other popular platforms similar to us like

- o Facebook messenger
- o Slack

To improve the efficiency and performance of the chatbot and identify the user type.

## **User Experience:**

To know the experience by taking the feedback survey after the end of the conversa

5 star-excellent,4star-good,3-satisfactory,2-slightly poor,1-poor.

