

# Hackathon Problem Statement: Gen-AI-Powered Return & Exchange Chatbot for E-Commerce

## Problem Statement:

Managing product returns and exchanges is a major challenge for e-commerce platforms. Customers often struggle with complicated return policies, long processing times, and poor support experiences. Traditional customer service teams are overwhelmed with repetitive queries, leading to delays and dissatisfaction.

**How can we leverage Generative AI (GenAI) to develop an intelligent chatbot that streamlines the return and exchange process for e-commerce customers?**

## Challenge:

Build an AI-powered chatbot that can:

1. **Guide users through the return/exchange process** based on product type, policy, and purchase history.
2. **Understand customer intent** (return, exchange, refund, replacement) and provide instant solutions.
3. **Check order eligibility** for returns/exchanges based on the e-commerce platform's policies, provided as documents.
4. **Offer personalized recommendations** (e.g., alternative products for exchange).
5. **Estimate the customer mood** and act accordingly.

## expected Output:

- **An interactive AI chatbot** that seamlessly handles returns and exchanges. Utilize Gen-AI and reasoning engine for handling the conversation.
- **Utilization of RAG** for return/exchange policy verification by ingesting policy documents.
- **Tools integration** for connecting with order management system (Database).
- **Customer mood detection** for handover to human agent. (Optional)
- **Exception handling and guardrails** for preventing off topic conversations.