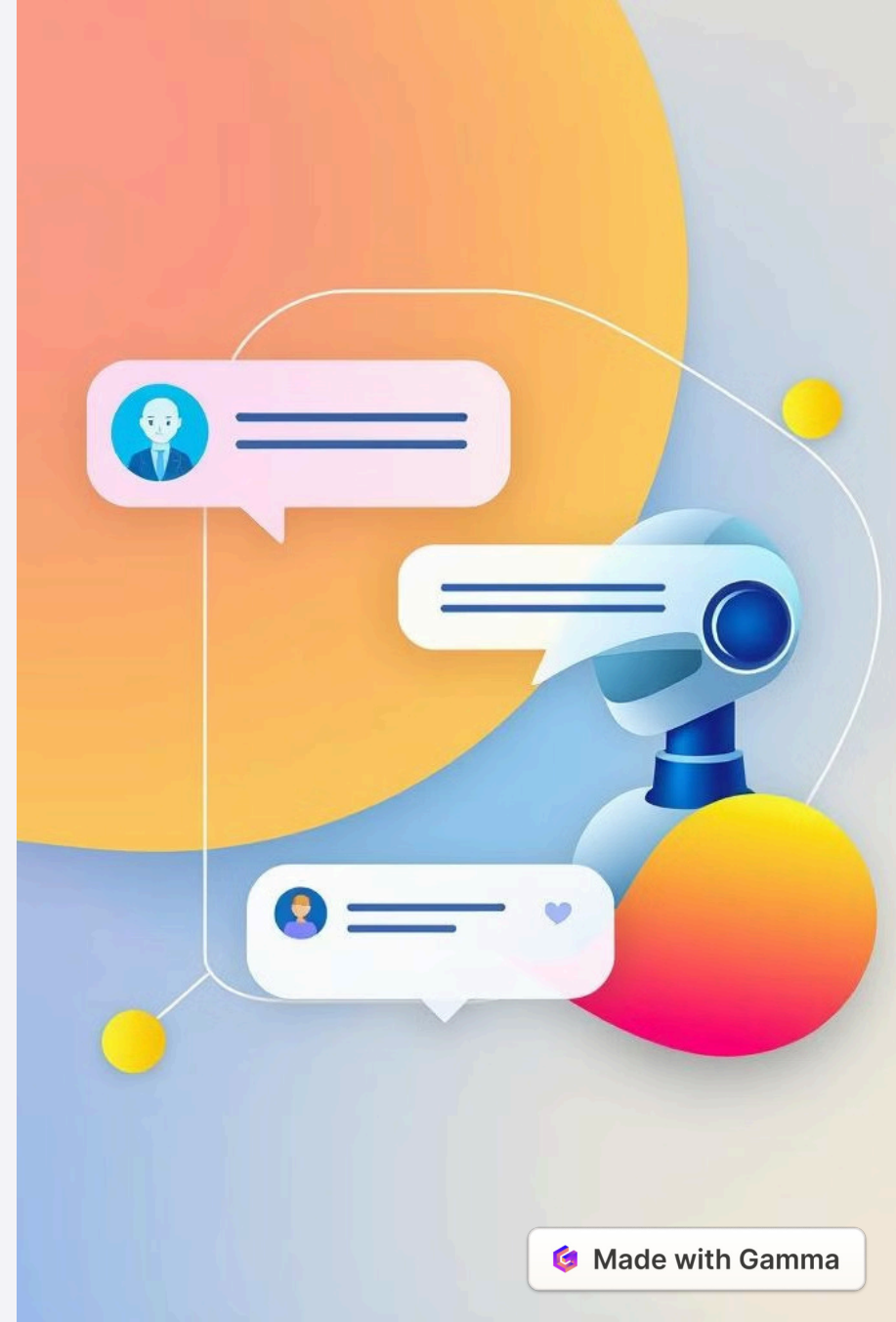# Development of an E-commerce Sales Chatbot

This presentation outlines the development process of an e-commerce sales chatbot, showcasing the innovative solutions and key features that enhance customer experiences.

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Objectives

Simplified Interactions

Create a user-friendly chatbot interface to simplify e-commerce interactions.

Enhanced Experience

Enhance the customer experience across the entire purchase journey, from product search to completion.

Architecture

1 **Frontend**

HTML5, CSS3, and JavaScript provide a responsive user interface.

2 **Backend**

Flask (Python) handles the backend logic, including API requests and database interactions.

3 **Database**

SQLite manages the product catalog and user data.

Chatbot architecture

1. User interacts with a chatbot

2. Chatbot analyzes the text

User

Messenger

Natural Language Processing

3. Chatbot gives an answer using data from the database

5. The more information chatbot gets, the more it learns

4. The bot can learn from human

Machine learnin

Chatbot logic

Information sources

API or Database

Human Interactions
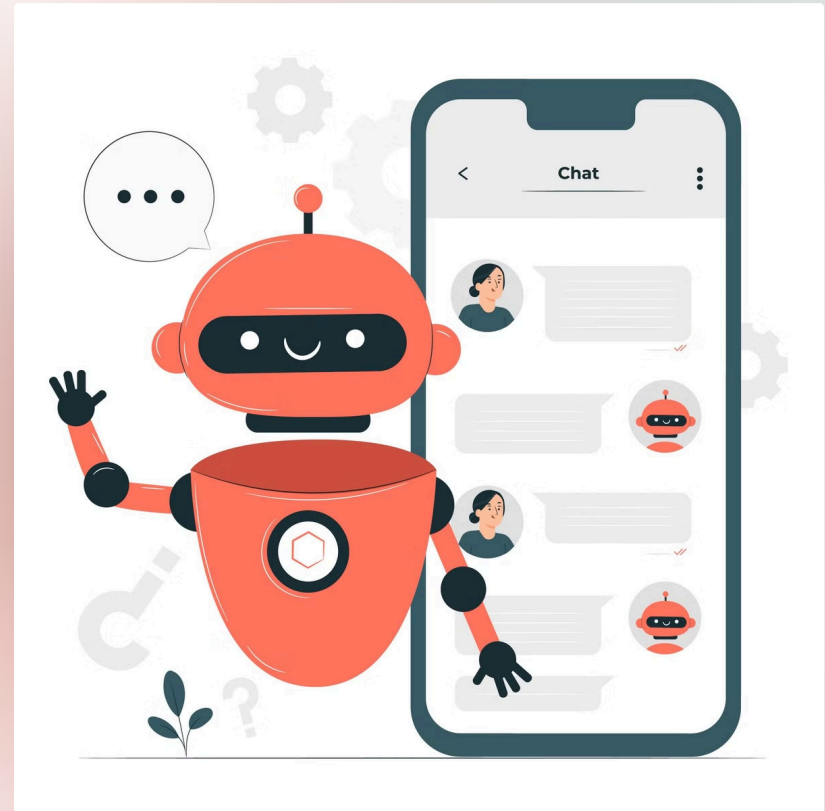
Features

Responsive UI

The chatbot is optimized for various screen sizes and devices.

Real-Time Search

RESTful APIs power real-time product search functionality.

Mock Inventory

The chatbot uses a mock inventory with diverse product details.

Challenges

Responsive UI

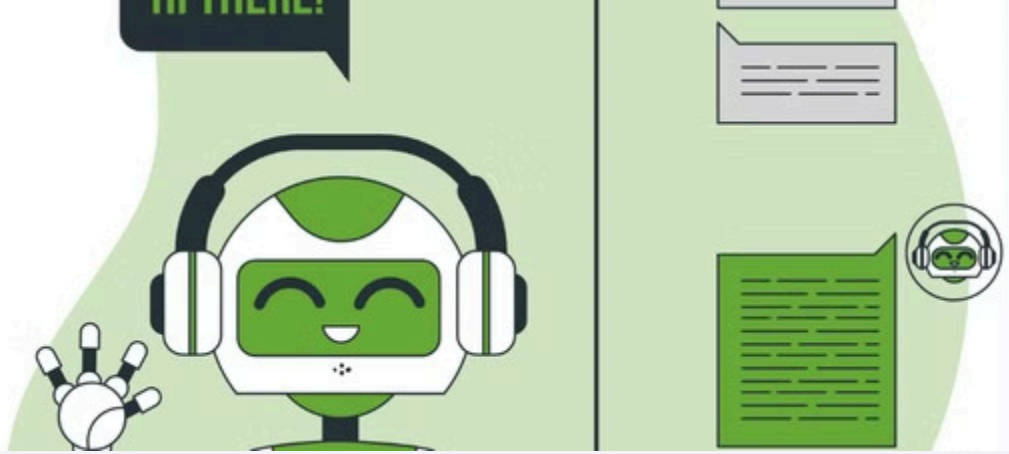Designing a responsive and user-friendly chatbot interface for diverse devices.

Invalid Queries

Handling invalid user queries and providing appropriate responses.

Realistic Dataset

Creating a realistic and diverse product dataset for the chatbot's inventory.

Conversational AI Chatbot Solution For E-Commerce

Solutions

1	2	3

CSS Media Queries

Leveraging CSS media queries to ensure responsiveness across different screen sizes.

Flask Error Handling

Implementing error handling mechanisms within the Flask API to gracefully manage invalid queries.

SQL Data Generation

Creating a mock product inventory using SQL scripts to provide a comprehensive and realistic dataset.

Results

Functional Chatbot

1

A fully functional chatbot interface for product search and information retrieval.

Frontend-Backend Integration

2

Smooth communication between the frontend and backend systems, ensuring seamless user interactions.

Efficient Query Handling

3

Efficient query handling and accurate responses based on a comprehensive mock inventory.
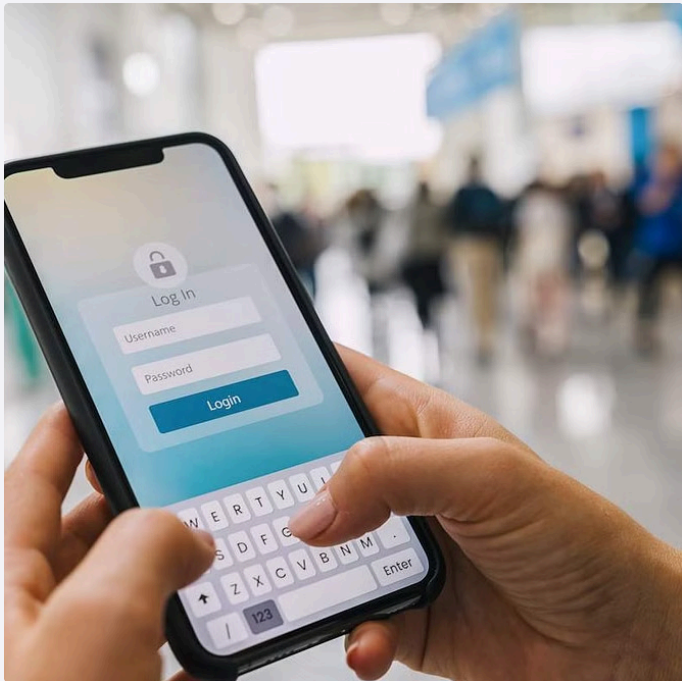

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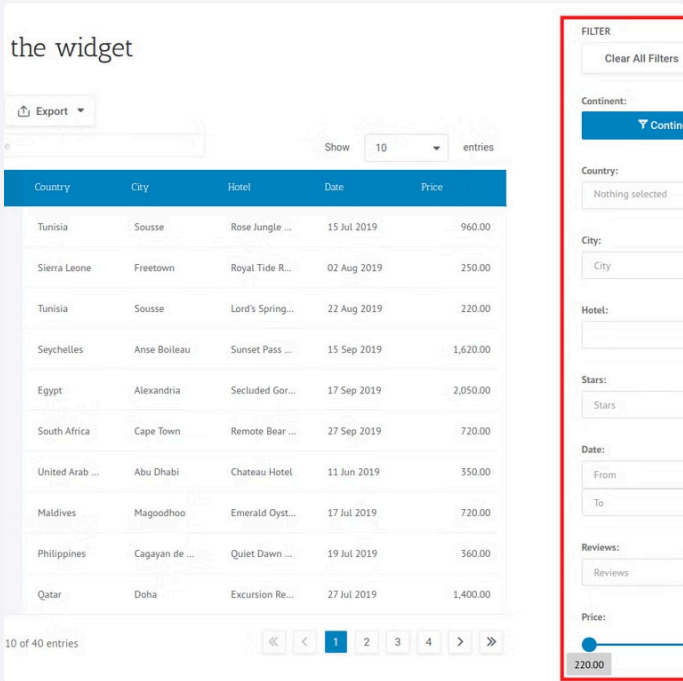
Future Enhancements

NLP Integration

Integrate natural language processing (NLP) for more intelligent and conversational interactions.

User Authentication

Add user authentication and purchase options to streamline the buying process.

Advanced Filtering

Expand the product inventory with advanced filtering options to personalize the shopping experience.

Thank You!

Thank you for your time. We welcome your questions and feedback.