

Detailed Functional Overview – Agentic Banking Chatbot

This document provides a comprehensive functional overview of the Agentic Conversational AI Chatbot designed specifically for banking use cases. The solution is built to enhance customer experience while reducing manual workload for bank employees.

The system adopts an agent-orchestrated architecture where user inputs are seamlessly analyzed, routed, processed, and resolved by specialized agents. Each agent performs a specific capability—similar to human teams working collaboratively.

The chatbot handles various banking scenarios such as:

- Making payments
- Frequently Asked Questions (FAQ)
- Managing disputes
- Applying for a new credit card
- Checking account balances
- Guiding customer support escalations

Key Functional Components:

1. **Intent Recognition & Semantic Routing** The system begins by recognizing the user's intent using LLM-powered classification. This ensures accurate routing to the correct primary agent.

2. **Primary Intent Agents** Each top-level task—payments, disputes, account info—is handled by a dedicated agent responsible for end-to-end orchestration of that business flow.

3. **Child Intent Agents** These agents perform subtasks such as opening a dispute, retrieving dispute status, updating disputes, verifying account details, or retrieving card application requirements.

4. **Conversation Management** The LLM ensures context retention, natural language interaction, and corrective guidance in case of missing information or ambiguous customer messages.

5. **Automated Backend Interaction** Tool agents automatically call REST APIs for operations such as account balance retrieval, dispute creation, and transaction lookup.

End-User Benefits:

- Faster response time
- Reduced operational overhead
- Improved customer satisfaction
- Personalized and human-like conversation flows