



## CASE STUDY

# INFORMATION RETRIEVAL CHATBOT SOLUTION FOR A BIG 4 AUDIT FIRM

## Client Background

Our client is one of the Big 4 audit firms providing a wide scope of professional services to their clients. The firm utilizes several technology-enabled tools to foster excellence in audit quality and the audit experience. They wanted to build an Intelligent Agent (Chatbot) that helped field consultants to retrieve information about tools quickly and accurately from the documents processed via an extraction engine. The key objectives included:

- Develop a chatbot that suggests, answers questions related to tool features for specific tasks in the audit process.
- Interact with the user as a conversational interface to maintain the right context and flow of the conversation.
- Navigate the user to the exact phrase of the document which has a detailed description of the answer returned by the chatbot.
- Develop a solution ensuring consistent and cross-platform user experience.

## Xoriant Solution | Key Contributions

The client chose Xoriant as its technology partner for its three decades of expertise in AI/ML and engineers who blend human and machine learning capabilities such as NLP, reinforcement learning, predictive analysis to build solutions and systems. Our contributions in the client's chatbot solution development included:

- **Natural Language Understanding:** Understanding the query of the user and map it to the right concepts in the ontology.



## KEY BENEFITS

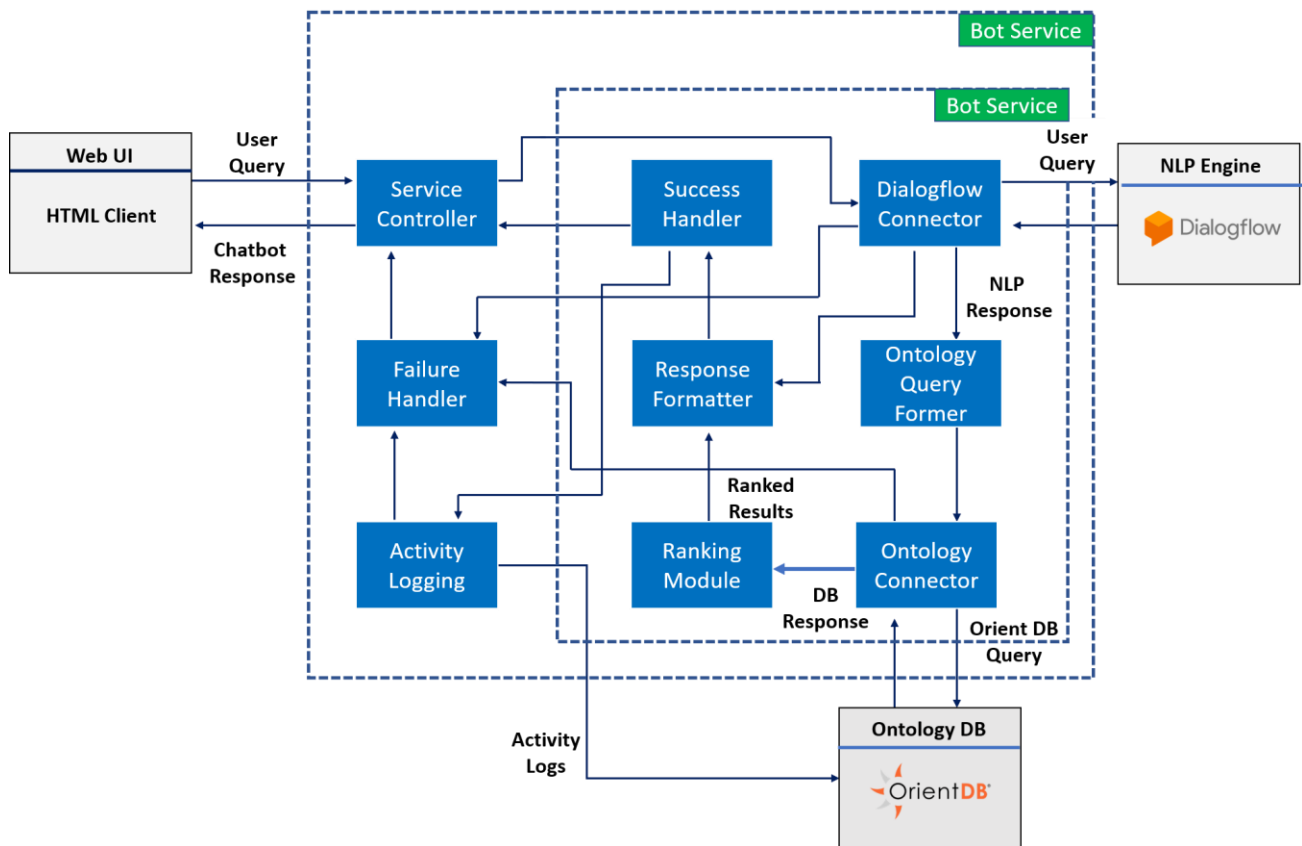
- Ensured easy access to several tools through organization and centralization with handy reference.
- Achieved 98.33% accurately in answering queries and guided the user to sources of more detailed information.
- Helped proliferate usage of innovative tools across the organization, saving 60% of the time and additional resource cost.

- **Ontology Building** – Creating an ontology of concepts and storing them in a database to be retrieved depending on the user query.
- **Interface for Query Resolution** – Building a user-friendly interface and navigation to answer queries with the right context and length.
- **Indexing extracted information in a graph database:** Using them to maintain data and entity relationships.

## Client Testimonial

“Xoriant AI/ML engineers understood the requirements of an intelligent agent in our business workflow and built a chatbot solution with 98.3% accuracy that resulted in 60% time savings.”

## Architecture Diagram



## Technology Stack

Apache Tomcat | Java | OrientDB | Dialogflow | HTML | CSS | JavaScript



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