## **Project Handover 2**

# **Chatbot German University Applications**

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#### Overview:

The Chatbot for German University Applications project aims to develop a web application that simplifies the university application process for students. Leveraging advanced chatbot technology, this project provides students with accurate and up-to-date information about universities, regions, admission requirements, and other academic details. By enhancing accessibility and efficiency, this initiative aligns with the United Nations' goal of providing quality education and equal opportunities for everyone.

### **Development Process**

#### **Handover and Initial Planning:**

After the initial handover session, our team began planning modifications to the pre-existing codebase to enhance its functionality. The primary focus was on integrating a database connection, as the previous version of the application lacked this critical component. Additionally, we aimed to add new features that would improve the user experience and provide more comprehensive support to students.

#### **Database Integration:**

The first major task was establishing a connection to a robust database. This integration was crucial for several reasons:

- 1. **Data Management:** Enabling the storage and retrieval of large volumes of data, such as university details, admission requirements, and user interactions.
- 2. **User Data:** Facilitating the collection and management of user data to personalize interactions and track application progress.

#### **Feature Enhancements**

Alongside the database integration, we focused on adding several new features to the chatbot:

- 1. **University Suggestions:** Implementing a functionality where the chatbot can suggest university names based on user preferences and academic profiles. This involves analysing user inputs such as desired course, location, and academic qualifications to provide tailored recommendations.
- 2. **Requirements Guidance:** Expanding the chatbot capabilities to include detailed guidance on admission requirements. This feature helps students understand the necessary qualifications, language proficiency tests and other essential criteria for their desired programs.

### **Implementation Steps**

- 1. **Code Review**: Conducting a thorough review of the existing code to identify areas that require modifications and to ensure compatibility with the new database.
- 2. **Database Design**: Designing a database schema that supports the storage of comprehensive university data and interaction logs.
- 3. **API Integration**: Developing APIs to facilitate communication between the chatbot and the database, enabling real-time data retrieval and updates.
- 4. **Testing:** Implementing rigorous testing protocols to ensure the new features function correctly and the database integration is seamless.
- 5. **User Feedback**: Gathering feedback from initial users to refine the new features and improve overall usability.

#### **Conclusion:**

By focusing on database integration and enhancing the chatbot with new features such as university suggestions and detailed admission requirements guidance, the Chatbot for German University Applications project aims to provide a more robust and user-friendly experience. These improvements are critical in helping students navigate the university application process more effectively.