**NLP Chatbot Development using Dialogflow**

**Project Domain:**

Web Application/NLP

**Abstract / Introduction:**

Chatbots are increasingly becoming integral to industries such as customer service, e-commerce, healthcare, and education. In this project, students will develop a chatbot using Google Dialogflow, an NLP-powered conversational interface. The chatbot should address a specific business need by automating customer interaction, providing relevant responses, and enhancing user experience. Students can select a case study from one of three industries: **Training Company**, **Pharmacy Store**, or **Restaurant**

**Functional Requirements**

The primary goal of this project is to design and develop an AI-powered chatbot that effectively understands and responds to user inquiries using **Dialogflow**, a prominent tool in natural language processing (NLP). Through this project, students will:

* **Identify a Real-World Case Study**: Choose a specific domain (Training Company, Pharmacy Store, or Restaurant) to explore the unique needs and challenges faced in that industry.
* **Define the Problem**: Analyze the chosen case study to clearly articulate the specific problem or inefficiency that the chatbot aims to address, detailing how its implementation can enhance operational processes and improve user experiences.
* **Build an Interactive Chatbot**: Develop a functional chatbot that not only answers queries but also performs key tasks such as making reservations, processing orders, or addressing frequently asked questions (FAQs). The chatbot should engage users in a conversational manner, ensuring a seamless interaction that meets their needs.

**Case Study Options:**

Students are encouraged to pick one of the following industries for their case study:

1. **Training Company**: A chatbot that assists with student inquiries, course registrations, schedules, and other administrative tasks.
2. **Pharmacy Store**: A chatbot that helps customers find products, check availability, set reminders for medicine, or request home delivery.
3. **Restaurant**: A chatbot that handles table reservations, order-taking, menu navigation, or customer support.

**Tools**:

**Dialogflow**: For chatbot design and natural language processing.  
**Backend**: PHP/Python  
**Front End: HTML/CSS/JS**

**Database**: MySQL, **IDE:** VSCode

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