



**SUPERIOR  
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**Project Report: AI Chatbot for a Software House**

## **1. Project Title**

### **AI-Powered Chatbot for Tech House**

## **2. Objective**

The main goal of this project is to build an intelligent chatbot that can assist users by providing quick information about a software house's services, team, and contact details. It also uses artificial intelligence to respond conversationally to general queries, enhancing the user experience.

## **3. Tools and Technologies Used**

- **Python Programming Language**
- **Hugging Face Transformers Library**
- **Pre-trained DialoGPT-medium Model**
- **PyTorch (for deep learning support)**

## **4. System Overview**

This chatbot combines two types of response systems:

### **a. Rule-Based Responses**

The chatbot first checks if the user's question relates to known topics such as:

- Services offered
- Office location
- Contact information
- Working hours
- Team expertise
- Portfolio and past projects

If a match is found, the chatbot returns a predefined, relevant answer.

### **b. AI-Powered Responses**

If the input doesn't match any predefined category, the chatbot uses a pre-trained DialoGPT model to generate a natural, human-like response. This ensures the chatbot can handle unexpected or open-ended questions.

## 5. Functional Highlights

- **Keyword Matching:** Quickly detects and answers common queries related to the software house.
- **Conversational AI:** Uses a language model trained on dialogue to engage users in natural conversation.
- **Interactive Interface:** Users can chat with the bot in real time through a terminal or command-line interface.
- **Scalable Design:** Easily extendable with more predefined categories or retraining on custom data.
- **Performance Optimization:** Utilizes GPU (if available) for faster and more efficient response generation.

## 6. Use Case

The chatbot is ideal for software houses that want to:

- Automate customer interaction
- Provide 24/7 assistance without human intervention
- Improve response time for FAQs
- Showcase services and portfolio efficiently

## 7. Conclusion

This chatbot effectively blends AI and rule-based logic to deliver a smart, responsive assistant for a software house. It helps bridge the gap between static web pages and dynamic customer service by handling both structured and open-ended queries with ease.