

Implementation Approach & Platform Justification

I selected Dialogflow for this project because it offers a user-friendly, no-code interface for building NLP-powered chatbots. It integrates easily with web and messaging platforms, supports multimedia responses, and handles context and follow-up intents efficiently ideal for educational conversation flows.

Q&A Pairs

Question number	User Questions	Chat board answers
1	What is deep learning?	Deep Learning is a specialized subset of machine learning that uses multi-layered neural networks to model complex patterns in data, enabling tasks like image and speech recognition.
2	Does AI impact privacy?	AI can impact privacy by collecting, analysing, and sometimes sharing personal data, raising concerns about consent and data protection.
3	What is AI ethics?	AI Ethics focuses on building responsible AI systems by ensuring fairness, accountability, transparency, and respect for user privacy and rights.
4	Define neural network in AI	Neural Networks are computing systems inspired by the human brain, made up of layers of interconnected nodes that process data and recognize patterns.
5	Define supervised learning	Supervised learning is a type of machine learning where models learn from labelled data to make predictions or classifications.
6	How does AI work in self-driving cars?	AI powers autonomous vehicles by processing sensor data to recognize surroundings, make decisions, and navigate safely without human input.

7	What is machine learning?	Machine Learning (ML) is a subset of artificial intelligence that enables computers to learn from data and improve their performance without being explicitly programmed.
8	What is computer vision?	Computer Vision is a field of AI that enables machines to interpret and analyse visual information from the world, like images and videos.
9	What causes AI bias?	Bias in AI occurs when training data or design causes the system to produce unfair or prejudiced outcomes against certain groups.
10	What is AI	AI (Artificial Intelligence) is the ability of machines or computers to perform tasks that usually require human intelligence.
11	Explain NLP	Natural Language Processing (NLP) is a branch of artificial intelligence that focuses on the interaction between computers and human language. The goal of NLP is to enable machines to understand, interpret, generate, and respond to text or speech in a way that's meaningful and useful.
12	Privacy considerations	AI systems can impact privacy by collecting and analysing personal data, which raises concerns about consent and security.
13	What are real-world uses of NLP?	Natural Language Processing (NLP) is used in many real-world applications where machines interact with human language.
14	How is AI used in finance?	AI in finance is used for fraud detection, risk assessment, algorithmic trading, and customer service automation.
15	How is AI different from machine learning?	AI (Artificial Intelligence): The broad idea of machines doing smart tasks like humans. While Machine Learning (ML): A type of AI where machines learn from data to improve on their own.

Flow: Learn about NLP

1. User type: "Learn about NLP"
2. Chatbot: Provide a **definition** of NLP
3. Chatbot: Display "**NLP applications**" suggestion chip → User clicks on it
4. Chatbot: Describes NLP applications and provide a link for the video that explain more about NLP.
5. Chatbot: Display "**NLP challenges**" suggestion chip → User clicks on it
6. Chatbot: Explains NLP challenges and provide a link for the video that explain more about NLP challenges. Then Display "**Learn more about NLP**" suggestion chip → User clicks on it
7. Chatbot: offers further learning resources

Screenshots of Chatbot in action

