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Chat bot Assistant

Documentation

Objective

The purpose of the Gideon chatbot is to assist users in learning about Artificial Intelligence (AI), Machine Learning (ML), Natural Language Processing (NLP), Deep Learning (DL), Neural Networks (NN), AI Ethics, and related technologies. It provides:

- Predefined Q&A for specific topics
- Guided conversation flows
- Interactive multiple-choice quizzes
- A fallback/error handling system for off-topic questions

Tools and Platform Selection Justification

- Platform – Bot press (Visual flow builder and Autonomous Nodes support)

- Justification:

    - No-code/low-code development via intuitive visual interface
    - Native support for Q&A, quizzes, autonomous conversation flows
    - Easy deployment and sharing via cloud links
    - Multimedia support: image, video, cards
    - Intent recognition and fallback handling

Implemented Q&A Pairs

Here are some examples of Q&A pairs added to the Knowledge Base:

Custom Vision

Q: What is Custom Vision? A: Custom Vision is a part of Microsoft Azure Cognitive Services that lets you build and refine your own image classifiers.
Q: Can I train Custom Vision with my own data? A: Yes, you can upload and label your own images to train custom models.

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AI and ML Topics

Q: What is Artificial Intelligence? A: AI refers to machines that can perform tasks that typically require human intelligence.
Q: What is Machine Learning? A: ML is a subset of AI that involves training algorithms on data to make predictions or decisions.
Q: What is NLP? A: Natural Language Processing is a field of AI that focuses on the interaction between computers and human language.

Conversation Flows

Welcome Flow
- Triggered on chatbot start
- Sends greeting message and asks:
  "What would you like to do?"
  With options:
    - 📘 Learn Something → goes to LearningFlow node
    - 📝 Take a Quiz → goes to QuizFlow node
    - ❓ Ask a Question → goes to AskFlow node

Learning Flow
- Presents multiple AI topics as buttons
- On click, shows detailed explanations for each topic:
    - **Machine Learning Basics**
    - NLP
    - Neural Networks / Deep Learning
    - AI Ethics

Quiz Flow
- User is presented with at least 10 multiple choice questions
- Each question is a card with:
- Question 3–4 answer choices
- Feedback: ✅ or ❌, with happy/sad face emojis

Ask Flow
- Autonomous node with instructions:

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"You are an expert assistant specialized in AI. Provide concise answers to user questions and link to AI courses when relevant."
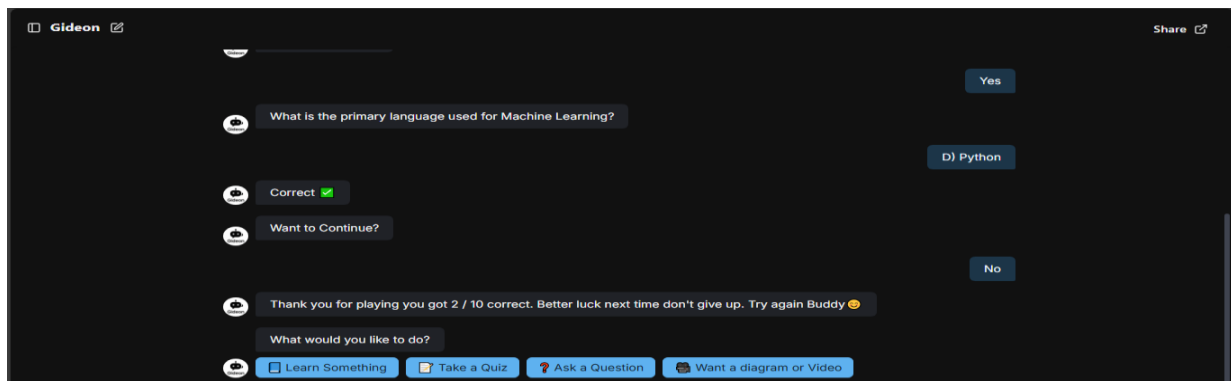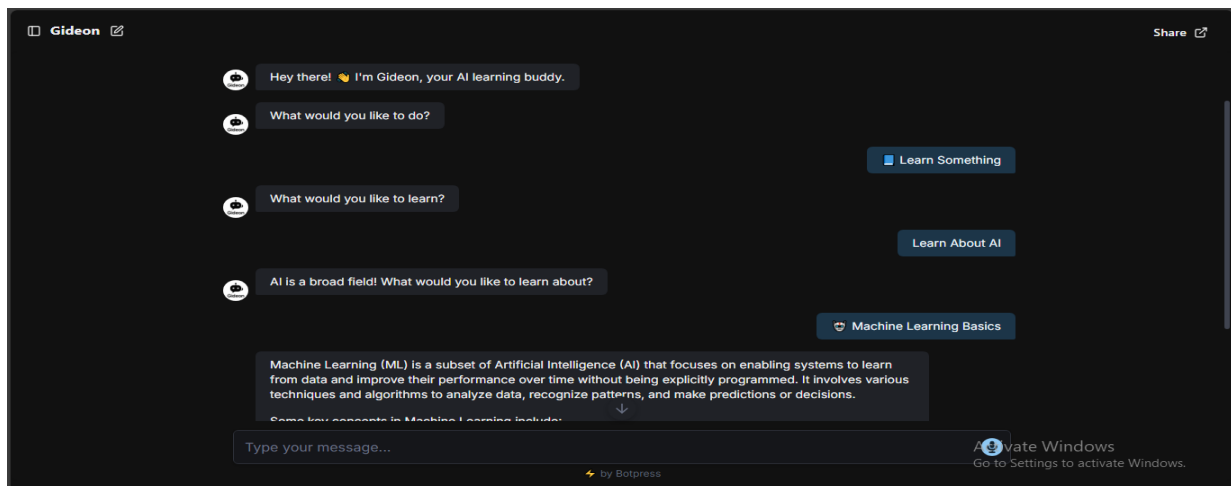
- Responds to any valid AI-related question
- Uses Bot press Knowledge Base for matching intents

Error Handling Flow
- Triggered when input doesn't match any known intent or KB
- Sends fallback message:

    " 🤖 Oops! Gideon's trained only on AI stuff. Please ask something related to AI or Machine Learning."

Proof that the chatbot works:

Gideon like has been deployed, here's the link: Gideon