

# Introduction to Prompt Engineering Capstone Project Education Support Chatbot

# **Project Brief**

DSN is exploring ways to use AI for promoting access to quality education and academic support for students across Nigeria. Your team has been tasked with designing a prompt-engineered dataset that can help train a chatbot to support students in areas like study tips, time management, career guidance, exam prep, and school-life balance.

The chatbot should communicate in a respectful, culturally aware, and motivating way while upholding the highest ethical standards.

#### **Deliverables**

**Tool to Use:** Use ChatGPT (chat.openai.com) to generate all prompts and responses.

### **Submission Method:**

- Copy your full ChatGPT conversation.
- Paste it into a Word processor (e.g., MS Word or Google Docs) without altering the format.
- Save the file as a PDF.
- Upload the PDF to the submission link <a href="https://bit.ly/FAIIEC25-Project-Submission">https://bit.ly/FAIIEC25-Project-Submission</a>

## **Prompt or Series of Prompts**

- Craft realistic prompts that simulate conversations with an educational support assistant.
- Prompts can address school challenges like procrastination, career choice questions, learning styles, exam anxiety, or motivation.
- Include a brief explanation of your prompting logic why you structured each prompt the way you did.



Generated Dataset (Minimum: 10-15 examples)

- Each entry should include:
  - o Instruction: What the model should do
  - Input: A student's question or academic concern
  - Output: The chatbot's response
- Format: JSONL, table, or Markdown

#### **Ethics Reflection**

- A short explanation of how your prompts:
  - Avoid bias or unrealistic expectations
  - Respect different learning backgrounds and education levels
  - o Protect student privacy and promote encouragement

# **Example Dataset Entry**

"instruction": "Answer as a study coach using a motivational tone.",

"input": "I keep failing math tests no matter how hard I try. What should I do?",

"output": "Don't give up! Many students struggle with math at first. Let's start by reviewing your study routine and identifying weak spots. You're capable — let's work through this together!"

# **Judging Criteria**

**Prompt Clarity:** Prompts are realistic, well-structured, and education-oriented

Supportiveness: Responses are encouraging, constructive, and culturally mindful

Ethical Design: Ensures inclusivity, fairness, and student wellbeing

Presentation: Submission is organized, clean, and easy to follow

Prompting Logic: Teams provide reasoning behind the structure and flow of prompts

Submission Deadline: 20th of June 2025