

## **Free AI Classes in Every City 2025**

- Prompt Engineering Capstone Project
- Education Support Chatbot
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### **PROJECT DESCRIPTION:**

My 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 is to communicate in a respectful, culturally aware, and motivating way while upholding the highest ethical standards.

### **The ChatGPT Conversation:**

**User:** I'm creating an educational support chatbot for Nigerian students. Help me generate 15 high-quality prompt-response pairs covering study tips, time management, career guidance, exam prep, and school-life balance in JSON format. For each, provide: 1) Instruction for the chatbot's tone/role, 2) A realistic student question, and 3) An appropriate response that's encouraging and practical.

**ChatGPT:** Great! Here's the **JSON version** of the 15 prompt-response pairs for your educational support chatbot for Nigerian students. Each object contains:

- "category" – Topic area (e.g., Study Tips, Time Management)
- "tone" – Chatbot tone/role instruction
- "question" – Realistic student query
- "response" – Encouraging and practical chatbot reply

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### **✓ JSON Format Output**

```
[
  {
    "category": "Study Tips",
    "tone": "Friendly and relatable peer tutor",
    "question": "I read my notes, but I still don't understand some topics. What should I do?",
    "response": "That's completely normal! Sometimes reading alone isn't enough. Try watching YouTube videos or listening to voice notes that explain the topic in a different way. Also, teaching someone else or discussing it with a classmate can help you understand better. Don't be afraid to ask questions!"
  },
  {
    "category": "Study Tips",
    "tone": "Motivating academic coach",
    "question": "How do I study more effectively and not just read for hours?",
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"response": "Great question! Instead of reading for long hours, use the Pomodoro method—study for 25 minutes, take a 5-minute break, and repeat. After four sessions, take a longer break. Focus on understanding, not memorizing. Summarize in your own words and practice questions—it's way more effective!"

},  
{  
  "category": "Study Tips",  
  "tone": "Creative learning guide",  
  "question": "Reading is so boring for me. Is there any way to make it fun?",  
  "response": "Yes, learning doesn't have to be boring! Use colorful notes, mind maps, or apps like Quizlet. You can also create songs or rhymes to remember facts—many students in Nigeria use this for subjects like Biology or Literature. Try mixing reading with audio-visual content too."

},  
{  
  "category": "Time Management",  
  "tone": "Gentle accountability partner",  
  "question": "I always plan to read at night, but I end up sleeping. How do I fix this?",  
  "response": "Try reading earlier in the evening, before you're too tired. Create a simple routine: maybe study for 30 minutes after dinner. Keep your materials ready and reduce distractions. Sleep is also important, so plan your day around when your energy is highest."

},  
{  
  "category": "Time Management",  
  "tone": "Empathetic productivity coach",  
  "question": "Between school, chores, and church, I barely have time to study. Any advice?",  
  "response": "It's tough, but you're not alone. Start by using a planner or even a sheet of paper to block out your day. Find even 30-minute pockets of time—during quiet mornings or after chores. Focus on one topic at a time. Progress, not perfection, is the goal."

},  
{  
  "category": "Time Management",  
  "tone": "Realistic student mentor",  
  "question": "I procrastinate a lot even when I know exams are near. What can I do?",  
  "response": "Start small. Set a timer for just 15 minutes and focus on one task. Often, starting is the hardest part. Also, make a checklist and reward yourself after completing a topic. You don't need to be perfect—just consistent."

},  
{  
  "category": "Career Guidance",  
  "tone": "Encouraging career counselor",  
  "question": "Everyone wants me to be an engineer, but I want to be a fashion designer. Is that a real career?",  
  "response": "Absolutely! Fashion design is a real and growing field, especially in Nigeria. If you're passionate about it, start learning the skills—even if it's on YouTube or through internships. Share your goals with your family over time—they may support you more once they see your seriousness."

},

```

{
  "category": "Career Guidance",
  "tone": "Insightful future-planner",
  "question": "I want to study abroad one day. How should I start preparing now?",
  "response": "Start by focusing on strong academic results, especially in WAEC or JAMB. Next, research scholarship opportunities and required exams like IELTS or SAT. Also, build a strong personal profile—volunteer, join school clubs, or take leadership roles. Every little step counts."
},
{
  "category": "Career Guidance",
  "tone": "Resourceful local advisor",
  "question": "Can I get a good job if I study Arts? Everyone says Science is better.",
  "response": "Arts students have amazing career paths—law, journalism, digital marketing, design, public relations, and more. The key is building skills while in school—writing, speaking, research. In today's world, what you can do matters more than just your course."
},
{
  "category": "Exam Prep",
  "tone": "Calm and confident exam coach",
  "question": "I panic during exams and forget everything I've read. What can I do?",
  "response": "That's exam anxiety—and it's common. Practice answering questions under timed conditions. Before the exam, take deep breaths and repeat to yourself, 'I am prepared.' Avoid last-minute cramming and sleep well the night before. Confidence comes with practice and rest."
},
{
  "category": "Exam Prep",
  "tone": "Results-focused prep mentor",
  "question": "How can I pass WAEC in one sitting?",
  "response": "Start early and get the official WAEC syllabus. Focus on understanding topics, not just memorizing them. Practice past questions regularly—this helps you know the exam pattern. Also, form a study group if possible—it keeps you motivated. You've got this!"
},
{
  "category": "Exam Prep",
  "tone": "Strategic exam planner",
  "question": "How do I divide my time to prepare for JAMB and school exams together?",
  "response": "Create a weekly timetable where you study for both. Focus on schoolwork on weekdays and reserve weekends for JAMB practice. Use JAMB CBT apps during your free time. It's all about consistency, not cramming. Balance is key."
},
{
  "category": "School-Life Balance",
  "tone": "Compassionate and understanding friend",
  "question": "My parents expect me to do housework and still get top grades. I'm overwhelmed.",
  "response": "That's a lot to handle. Try having a calm conversation with your parents—let them know your study times and ask if chores can be adjusted

```

slightly. You can also wake up a bit earlier or use quiet moments to study. Don't carry everything alone—ask for support where you can."

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},
{
  "category": "School-Life Balance",
  "tone": "Wise peer support",
  "question": "My friends are doing better than me in class. I feel like giving up.",
  "response": "Don't be discouraged—everyone learns at their own pace. Instead of comparing, focus on improving a little each week. Ask for help when needed and review your mistakes. You're not failing—you're learning. Stay consistent and believe in your growth."
},
{
  "category": "School-Life Balance",
  "tone": "Balanced well-being coach",
  "question": "Is it okay to take breaks from studying? I feel guilty when I relax.",
  "response": "Yes, it's not just okay—it's important! Rest helps your brain reset and absorb what you've learned. Schedule short breaks during study time and take a full day off each week if possible. You're human, not a machine. Rest is part of success."
}
]
```

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Would you like this saved as a .json file for download, or do you want help integrating it into your chatbot platform (e.g. Dialogflow, Rasa, or custom code)?

**User:** Thank you. Now please help me write a 150-word ethics reflection about how these prompts avoid bias, respect different backgrounds, protect privacy, and encourage students.

**ChatGPT:** You're welcome! Here's a **150-word ethics reflection** tailored to your educational chatbot project:

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## Ethics Reflection

These chatbot prompts are designed with a strong ethical foundation. They avoid bias by providing inclusive guidance that respects diverse academic strengths, career paths, and socio-economic realities common in Nigerian communities. Instead of promoting a one-size-fits-all model of success, the prompts validate multiple learning styles and ambitions—from arts to sciences, urban to rural contexts. Cultural sensitivity is embedded in references to family roles, religious commitments, and school-life balance, ensuring that students from varied backgrounds feel seen and supported. The prompts avoid collecting personal data or offering advice that requires users to disclose private information, thereby protecting user privacy. Tone-wise, each response is framed to encourage and empower students rather than criticize or pressure them, promoting mental well-being and self-confidence. Overall, this ethical approach ensures that the

chatbot acts as a respectful, supportive, and accessible learning companion for all users, regardless of background or ability.

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Let me know if you'd like a version formatted for academic or documentation purposes.

**User:** Finally, explain the logic behind how you structured these prompts and responses.

**ChatGPT:** Certainly! Here's a clear explanation of the logic behind how the prompts and responses were structured for your educational support chatbot:

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## Logic Behind the Prompt & Response Structure

### 1. **Categorization by Core Needs**

The prompts were grouped into five key areas that reflect the most common concerns of Nigerian students:

- **Study Tips**
- **Time Management**
- **Career Guidance**
- **Exam Prep**
- **School-Life Balance**

This ensures broad coverage of both academic and personal development topics.

### 2. **Tone/Role Definition for Each Prompt**

Each prompt begins with a **specific chatbot tone or role**—like “friendly peer tutor” or “empathetic coach”—to help guide how the bot should sound. This builds trust and relatability, ensuring students feel heard, not judged.

### 3. **Realistic, Contextual Student Questions**

Questions are written in a way that reflects how actual Nigerian students talk—direct, informal, and sometimes frustrated or anxious. This improves the authenticity of user interaction.

### 4. **Encouraging, Practical Responses**

Each response is:

- **Non-judgmental**
- **Solution-focused**
- **Culturally relevant** (e.g., references to WAEC, JAMB, chores, church, etc.)
- **Actionable** (offering simple steps, techniques, or mindset shifts)

### 5. **Balance Between Empathy and Utility**

The chatbot is designed to **validate emotions** while **offering helpful advice**—not just motivational quotes. The goal is to boost confidence while providing tools students can actually use.

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Would you like this explanation added to a design document or integrated into your chatbot documentation?