Chatbot Workflow and Conversational Flow for LiaPlus AI Nursing College Admissions

1. Introduction

This document outlines the proposed conversational flow and high-level workflow for an AI assistant designed to guide prospective nursing students through the admission process for a Nursing College, as per the LiaPlus AI Prompt Engineering Intern assignment. The aim is to create a clear, context-aware, and user-friendly interaction.

2. Chatbot Workflow (High-Level)

The chatbot workflow is designed to be sequential, guiding the user through various stages of the admission process. Each stage is triggered by a positive user response, while a negative response leads to a polite conclusion of the conversation.

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graph TD
    A[Start Conversation] --> B{Initial Admission Interest?};
    B -- Yes --> C{Studied Biology in 12th?};
    B -- No --> Z[End Conversation - Polite Farewell];
    C -- Yes --> D[Offer B.Sc Nursing Program Details];
    C -- No --> E[Inform Biology is Mandatory];
    E --> Z;
    D --> F{More Program Info?};
    F -- Yes --> G[Provide Fee Structure];
    F -- No --> Z;
    G --> H{More Info on Hostel/Training?};
    H -- Yes --> I[Describe Hostel & Training Facilities];
    H -- No --> Z;
    I --> J{More Info on College Location?};
    J -- Yes --> K[Inform College Location (Delhi)];
    J -- No --> Z;
    K --> L{More Info on Recognition/Accreditation?};
    L -- Yes --> M[Explain Recognition (INC Delhi)];
    L -- No --> Z;
    M --> N{More Info on Clinical Training?};
    N -- Yes --> O[List Clinical Training Locations];
    N -- No --> Z;
    O --> P{More Info on Scholarships?};
    P -- Yes --> Q[Describe Scholarship Options];
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P -- No --> Z;
Q --> R{More Info on Total Seats?};
R -- Yes --> S[Inform Total Seats Available];
R -- No --> Z;
S --> T{More Info on Eligibility?};
T -- Yes --> U[Explain Eligibility Criteria];
T -- No --> Z;
U --> V[Offer Further Assistance / Conclude];
V --> Z;
```

Workflow Steps:

1. **Initiation**: The assistant greets the user and asks about their initial interest in admission.
2. **Eligibility Check**:
   - If interested, the assistant checks for Biology in 12th grade.
   - If Biology is not mentioned, the assistant informs them of the requirement and offers to end the conversation.
3. **Program Details**: If eligible, the assistant provides a brief overview of the B.Sc Nursing program and asks if the user wants more details.
4. **Sequential Information Delivery**: Based on positive responses, the assistant proceeds through the following topics:
   - Fee Structure
   - Hostel and Training Facilities
   - College Location
   - Recognition and Accreditation
   - Clinical Training Locations
   - Scholarship Options
   - Total Seats Available
   - Eligibility for Admission (detailed)
5. **Response Handling**: At each step, the assistant manages positive and negative responses, continuing the conversation or politely ending it.
6. **Conclusion**: Once all information is shared or the user expresses disinterest, the conversation concludes politely.

3. Chatbot Conversational Flow (Detailed)

This section details the specific prompts, expected user responses, and the assistant's subsequent actions for each required topic.

Initial State: Greeting

- **Assistant**: "Hello! Welcome to LiaPlus AI. Are you interested in admission to our Nursing College?"

1. Initial Admission Interest

- **User Response (Positive: "Haan", "Yes", "Tell me more", "Kya hai?")**:
  - **Assistant**: "Great! To check your eligibility, could you please tell me if you studied Biology in your 12th grade?"
- **User Response (Negative: "No", "Nahi")**:
  - **Assistant**: "No worries at all. If you change your mind or have any other questions in the future, feel free to ask! Have a great day." (End Conversation)
- **User Response (Mentions subject other than Biology)**:
  - **Assistant**: "B.Sc Nursing mein admission ke liye Biology avashyak hai. Would you still like to know more about the program, or would you like to end the conversation?"
    - **User (Positive)**: "Yes, tell me more." (Proceed to 2. Eligibility Check - as if they said "No" to Biology, but offer to continue the conversation).
    - **User (Negative)**: "No, thank you." (End Conversation - Polite Farewell)

2. Eligibility Check (Based on Biology in 12th Grade)

- **User Response (Affirms Biology in 12th grade)**:
  - **Assistant**: "Excellent! Our B.Sc Nursing Program is a full-time course designed to provide comprehensive training. Would you like to know more about the program details?"
- **User Response (Denies Biology in 12th grade)**:
  - **Assistant**: "I see. Biology is a mandatory requirement for admission to the B.Sc Nursing program. Unfortunately, without it, you wouldn't be eligible for this specific course. Is there anything else I can assist you with today?"
    - **User (Positive)**: "Yes, tell me more." (The assistant should politely reiterate the eligibility and offer to end the conversation, or if the user insists, move to a general information offering, but clearly state the eligibility constraint. For this assignment, it's best to gently guide them to conclude or offer general help.)
    - **Assistant (if user insists)**: "While Biology is essential for B.Sc Nursing, I can still provide general information about the college if you'd like, or we can conclude our chat here. What would you prefer?"
    - **User (Negative)**: "No, thank you." (End Conversation - Polite Farewell)

3. Program Details

- **Assistant (after confirming Biology eligibility)**: "Our B.Sc Nursing Program is a full-time course designed to provide comprehensive training. Would you like to know more about the program details?"
- **User Response (Positive)**:
  - **Assistant**: "Certainly! Let's talk about the fee structure. Are you ready for that information?"
- **User Response (Negative)**:
  - **Assistant**: "Understood. If you have any other questions about the program or anything else, just let me know. Otherwise, we can end our conversation here." (End Conversation - Polite Farewell)

4. Fee Structure

- **Assistant**: "Our total annual fees are ₹70,000 INR, which includes a Tuition Fee of ₹60,000 INR and a Bus Fee of ₹10,000 INR. These fees are divided into three installments:
  - 1st Installment: ₹30,000 (due at the time of admission)
  - 2nd Installment: ₹20,000 (due after the first semester)
  - 3rd Installment: ₹20,000 (due after the second semester)
    Would you like to know about our hostel and training facilities next?"
- **User Response (Positive)**:
  - **Assistant**: "Great! Let's move on to the hostel and training facilities." (Proceed to 5. Hostel and Training Facilities)
- **User Response (Negative)**:
  - **Assistant**: "No problem. Is there anything else you'd like to discuss, or shall we wrap up our conversation?" (End Conversation - Polite Farewell)

5. Hostel and Training Facilities

- **Assistant**: "We offer excellent hostel facilities with 24times7 water and electricity, along with CCTV surveillance for security. A warden is also available on-site. Additionally, hospital training is included, where students gain hands-on experience working with real patients. Would you like to know about the college's location?"
- **User Response (Positive)**:
  - **Assistant**: "Alright, let's talk about the college location." (Proceed to 6. College Location)
- **User Response (Negative)**:
  - **Assistant**: "Understood. Is there any other information you're looking for, or would you like to conclude?" (End Conversation - Polite Farewell)

6. College Location

- **Assistant**: "Our Nursing College is conveniently located in Delhi. Would you like to know more about the location or the surrounding area?"
- **User Response (Positive)**:
  - **Assistant**: "The college is situated in a vibrant part of Delhi, offering good connectivity and access to amenities. Would you like to know about the college's recognition and accreditation?"
- **User Response (Negative)**:
  - **Assistant**: "No problem. Shall we move on to another topic, or are you ready to finish our chat?" (End Conversation - Polite Farewell)

7. Recognition and Accreditation

- **Assistant**: "Our college is recognized by the Indian Nursing Council (INC) (Delhi), ensuring the quality and validity of your degree. Would you like to know more about this recognition?"
- **User Response (Positive)**:
  - **Assistant**: "The INC is the national regulatory body for nursing education in India, ensuring high standards. Now, would you be interested in knowing about our clinical training locations?"
- **User Response (Negative)**:
  - **Assistant**: "Understood. Is there anything else I can help you with, or would you like to end our conversation?" (End Conversation - Polite Farewell)

8. Clinical Training Locations

- **Assistant**: "Our students receive clinical training at various esteemed locations, including:
  - District Hospital (Backundpur)
  - Community Health Centers
  - Regional Hospital (Chartha)
  - Ranchi Neurosurgery and Allied Science Hospital (Ranchi, Jharkhand)
    Are you interested in learning about scholarship options?"
- **User Response (Positive)**:
  - **Assistant**: "Great! Let's discuss the available scholarships." (Proceed to 9. Scholarship Options)
- **User Response (Negative)**:
  - **Assistant**: "Okay. Is there another topic you'd like to explore, or are you all set?" (End Conversation - Polite Farewell)

9. Scholarship Options

- **Assistant**: "We have a couple of scholarship options available:
  - Government Post-Matric Scholarship (₹18k-23k)

- Labour Ministry Scholarships (₹240k-₹48k) for those with Labour Registration Would you like to know about the total number of seats available in the program?"
- **User Response (Positive)**:
  - **Assistant**: "Sure! Let's cover the total seats." (Proceed to 10. Total Seats Available)
- **User Response (Negative)**:
  - **Assistant**: "No problem. Is there anything else you'd like to know, or would you like to conclude our chat?" (End Conversation - Polite Farewell)

10. Total Seats Available

- **Assistant**: "There are a total of 60 seats available in our B.Sc Nursing program. Would you like to review the full eligibility criteria for admission?"
- **User Response (Positive)**:
  - **Assistant**: "Absolutely! Let's go over the detailed eligibility criteria." (Proceed to 11. Eligibility for Admission)
- **User Response (Negative)**:
  - **Assistant**: "Alright. Is there anything else you need assistance with, or are we good to finish?" (End Conversation - Polite Farewell)

11. Eligibility for Admission (Detailed)

- **Assistant**: "To be eligible for admission to the B.Sc Nursing program, you need to meet the following criteria:
  - Must have studied Biology in 12th grade
  - Must have passed the PNT Exam
  - Age: 17 to 35 years
    Is there anything else I can help you with regarding admissions or the college?"
- **User Response (Positive/General Query)**:
  - **Assistant**: "Please feel free to ask your question." (Assistant should attempt to answer based on previous topics or general knowledge. If unable, politely state so and offer to connect them with a human.)
- **User Response (Negative)**:
  - **Assistant**: "Perfect! It was a pleasure assisting you today. If you have any more questions in the future, don't hesitate to reach out. Goodbye!" (End Conversation - Polite Farewell)

4. Response Handling Logic

- **Positive Responses ("Haan", "Yes", "Tell me more", "Kya hai?", "Batao")**: If the

user's response is anything other than "No" or "Nahi", the assistant will interpret it as a positive affirmation to continue the conversation and move to the next logical question or provide the requested information.

- **Negative Responses ("Nahi", "No")**: If the user explicitly says "No" or "Nahi", the assistant will acknowledge their response, politely end the current conversational thread, and offer to assist again in the future.

5. Conclusion

This conversational flow aims to be clear, logical, and user-friendly, ensuring that prospective nursing students receive all necessary information in a structured manner while allowing them to control the pace and depth of the conversation.