**✍️ Chatbot Flow: Explanation**

**🧠 Conversation Flow Overview**

The chatbot follows a **state-based conversation flow** driven by intent detection and the next\_action variable. The conversation starts with a greeting and moves to **intent classification**, branching into the appropriate flow based on user intent:

* **Booking Flights** (main flow)
* **Canceling Flights**
* **Rescheduling Flights**
* **Listing Bookings**
* **Exiting** the chat

Each branch is implemented as a sequence of well-defined states, like "Get Route", "Get Flight Number", "Get Baggage", etc., using memory to track context and user responses.

**🛫 Booking Flow Breakdown**

1. **Get Route**: Extracts origin and destination using regex or -> format.
2. **Show Flights**: Displays available options from dummy\_flights\_data.
3. **Flight Selection**: User selects a flight number.
4. **Passenger Count**: Number of travelers provided.
5. **Passenger Names**: Collected individually if >1.
6. **Baggage**: Handles extra checked bags ($40/bag).
7. **Cost Calculation**: Total computed (fare × passengers + baggage fee).
8. **Booking Summary**: Displays full booking details.
9. **Confirmation**: If user says "yes", proceeds.
10. **Email and Payment**: Validates email + 16-digit credit card.
11. **Booking Stored**: Stored in the bookings list.

**🔄 Cancel & Reschedule Flow**

* **Cancel**: Flight number is matched against saved bookings. If found, removed and refund issued.
* **Reschedule**: Similar to cancel, but allows user to provide a new date, updating the booking in memory.

**🧩 Error & Fallback Handling**

* **Unrecognized Inputs**: Classified as "fallback" and prompt user to rephrase.
* **Invalid Routes or Flight Numbers**: Clear prompts guide the user back on track.
* **Missing Info (e.g. name, card)**: Bot reprompts until valid input is given.
* **Wrong Booking Reference**: User is offered to "list bookings" to help identify correct flights.

**✅ Strengths of the Logic**

* Modular, extensible logic using next\_action states.
* Robust against unclear input due to regex + fallback messages.
* Clean separation of booking, rescheduling, cancellation, and listing flows.
* Multi-user support via multiple passenger names and dynamic pricing.

A screenshot of a black screen

AI-generated content may be incorrect.