✍️ 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

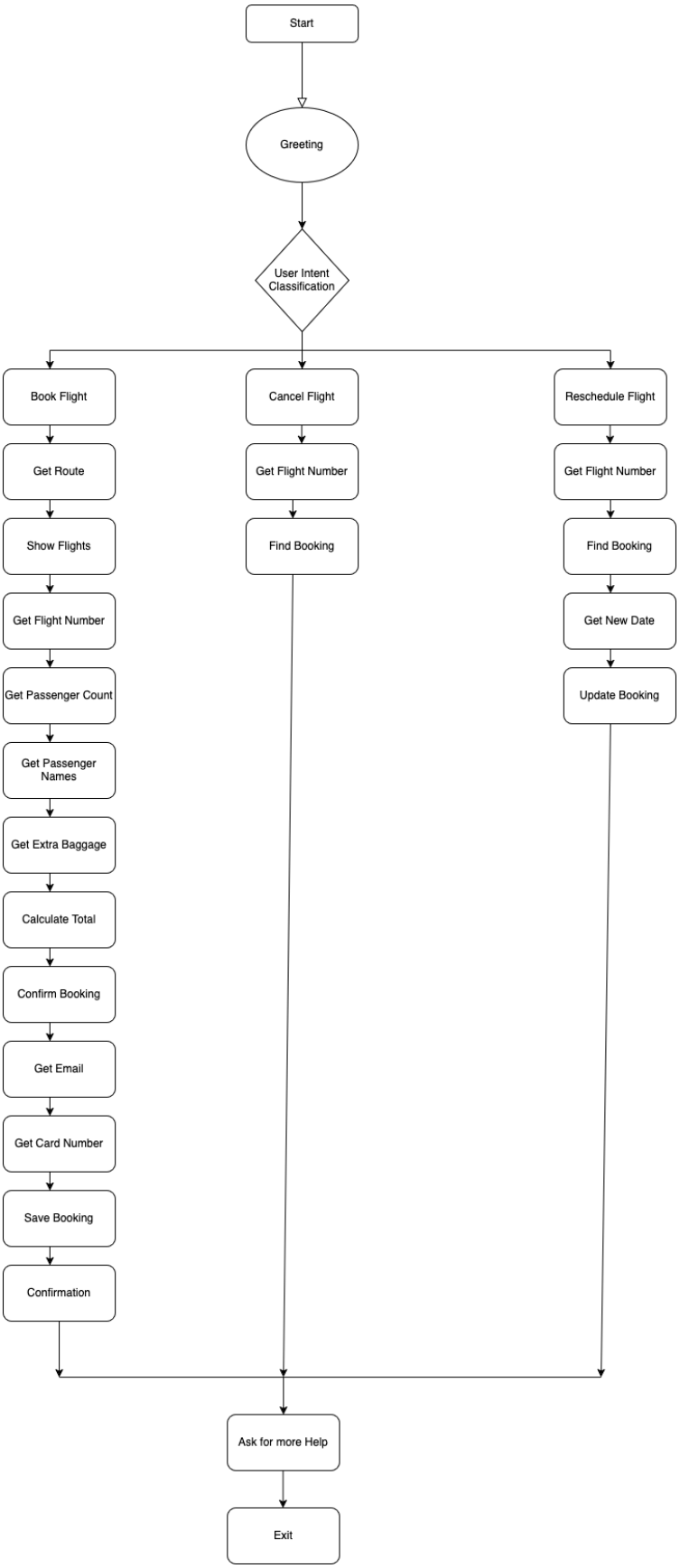
- **Cancel**: Flight number is matched against saved bookings. If found, removed and refund issued.
- **Reschedule**: Similar to cancel, but allows user to provide a new date, updating the booking in memory.

🧩 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.


Start
Greeting
User Intent Classification
Book Flight
Get Route
Show Flights
Get Flight Number
Get Passenger Count
Get Passenger Names
Get Extra Baggage
Calculate Total
Confirm Booking
Get Email
Get Card Number
Save Booking
Confirmation
Cancel Flight
Get Flight Number
Find Booking
Reschedule Flight
Get Flight Number
Find Booking
Get New Date
Update Booking
Ask for more Help
Exit