

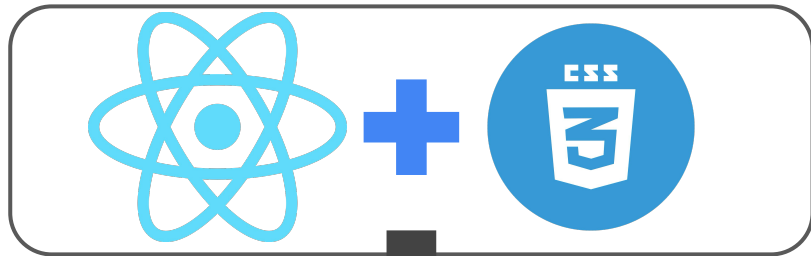
# Package Tracking Chatbot

## User Journey Map: Lost Package Claim Process

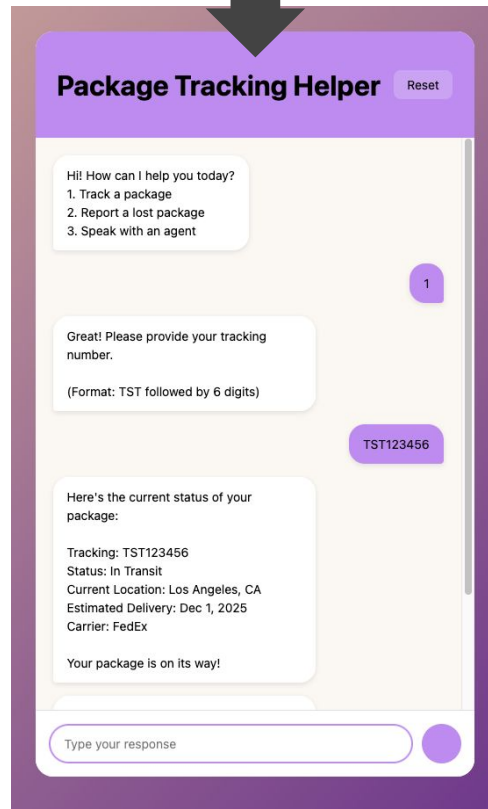


- Finite state machine pattern (only a set of conversation states)
- Simplified to prevent confusion and maintain context
- Option to speak with a live agent for more complicated cases
- Option to restart at any point

# Technical implementation

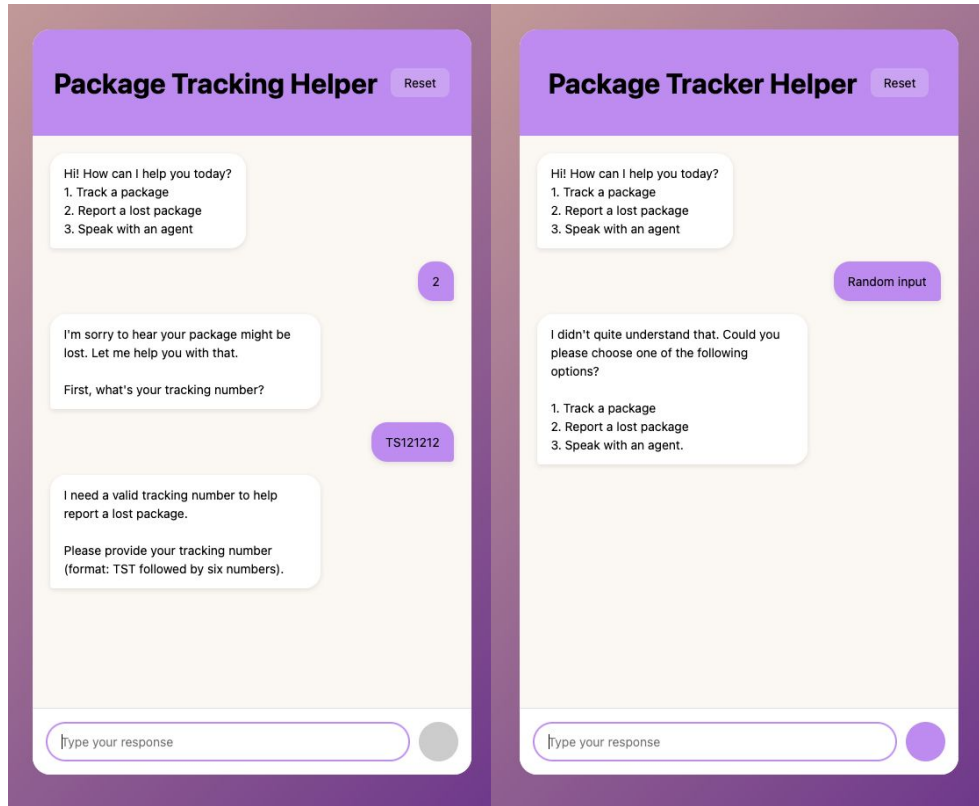


- Tech Stack
  - Written in:
    - [React.js](https://reactjs.org/)
    - HTML/CSS
  - Requirements:
    - [Node.js](https://nodejs.org/) (npm)
    - Vite (for local development)
- Features:
  - Track package and report lost package flows
  - Input validation (regex)
  - Empty input prevention
  - Reset chat to restart the flow



# Challenges and Solutions

- How to manage conversation state and context
  - Only allow certain inputs and responses for clarity
  - Fallbacks for unrecognized inputs
    - Ex. 1) Invalid tracking number
    - Ex. 2) Unexpected response
- Double rendering in dev mode
  - useRef to track initialization



# Future improvements

- Basic features
  - Parse multi-word responses
  - Email verification (2-Fac)
  - Accessibility
- Advanced/Complex features
  - Actually hand off to a human agent
  - Integrate ML and NLP for better understanding and text recognition
  - Multilingual support

