report-lab2

1. Identified Issues & Limitations

While working on the appointment system, I noticed several limitations and areas that needed improvement:

Repetitive No Input & Invalid Input Messages

- The system used the same fixed messages when the user didn't respond or provided an unrecognized input, making interactions feel repetitive.

Limited Recognition for Names & Times

- If a user mentioned a name or time that wasn't in the predefined grammar, the system didn't provide clear guidance on what to do next.

Redundant State Logic

- Some event handling, especially related to input validation, was repeated across multiple states, making the code unnecessarily complex.

Flow Getting Stuck in CheckGrammar

- When a user provided unrecognized input, the conversation often got stuck in the `CheckGrammar` state, making it difficult to proceed smoothly.

2. Implemented Improvements

Randomized No Input & Invalid Input Messages

- Implemented a function to select a random response dynamically, making interactions more natural.

- **Before:** Fixed messages were written directly in `entry`.

- **After:** Messages are now picked randomly each time `NoInput` or `InvalidInput` is triggered.

New Control State for Smoother Flow

- Introduced a `Control` state to prevent the conversation from getting stuck in `CheckGrammar`.

- This state ensures that after an error or no input, the system correctly determines what to ask next based on the current context.