

LT2216/LT2816 V26 Dialogsystem

Adib Wahid Quader

Report of the Limitations

Answer. Previous Limitations:

1. **Intermediate State Crashes:** Some intermediate states in previous versions caused the system to crash or ignore input. For example, using `target: "#DM.WaitToStart"` produced an "Invalid transition definition" error. Changing it to:

```
Done: {
  on: { CLICK: "Appointment" }
}
```

now allows the transition to move smoothly.

2. **Incomplete Appointment Flow:** In older implementations, the machine stopped after creating an appointment, and buttons did not work. The browser had to be refreshed to restart the process. Updating the state from:

```
LISTEN_COMPLETE: [
  { target: "Done", guard: "hasConfirmed" },
  { target: "PromptTime", guard: ... },
  { target: "AskWholeDay", guard: ... }
]
```

to:

```
Confirmation: {
  entry: ["spst.listen", "spst.clearData"],
  on: {
    LISTEN_COMPLETE: [
      { target: "Done", guard: "hasConfirmed" },
      { target: "PromptPerson", guard: "hasDenied" }
    ]
  }
}
```

ensures the appointment completes and the flow can be restarted without refreshing the browser.

3. **Lack of Error Handling:** Previously, the machine simply repeated the question when an error occurred. In the updated version, I used:

```
NoInput
context.lastResult ? "I didn't catch that..." : ...
```

to handle missing input more gracefully.

4. **Name Recognition Issues:** Sometimes the machine does not correctly recognize my name, "Adib". Multiple repetitions are required for correct recognition, which is a key limitation.
5. **Infinite Listening Loop:** The machine continues asking questions if it does not hear any input. Ideally, it should stop after a certain timeout to prevent endless looping.
6. **Start Trigger Limitations:** The previous FSM started automatically. I wanted it to start on a button click or by saying "Hi", but currently only the button trigger works. The voice trigger fails for some unknown reason.