# PROMPTLY

## PHASE 4 DOCUMENTATION - PROCESS AUTOMATION

### 4.1 Core Automation Logic (Client-Side JavaScript)

- **Purpose**: To provide a zero-friction, end-to-end automated process for capturing and setting a time-sensitive reminder via voice.
- **Implementation Details**: The entire automation is contained within a single JavaScript file, executed instantly upon user interaction.
    - **Automation 1: Voice-to-Text Capture**: Triggered by the user's button tap, the application automatically initiates the device microphone and converts the spoken audio into text data.
    - **Automation 2: Timer Setting**: The transcribed text is immediately fed into the `setTimeout()` function, which automatically starts a **countdown**.
    - **Automation 3: Notification Push**: After the countdown expires, the application automatically calls the Web Notifications API to push the reminder email to the user.
- **Business Impact**: Eliminates the delay and distraction associated with manually typing a micro-task into a list, ensuring fleeting thoughts are captured and acted upon immediately.

| Technology | Process Detail |
|---|---|
| Web Speech API | Automates the input process (Speech Recognition). |
| setTimeout() | Automates the timing process (Timer). |
| Web Notifications API | Automates the output process (Final Reminder Display). |

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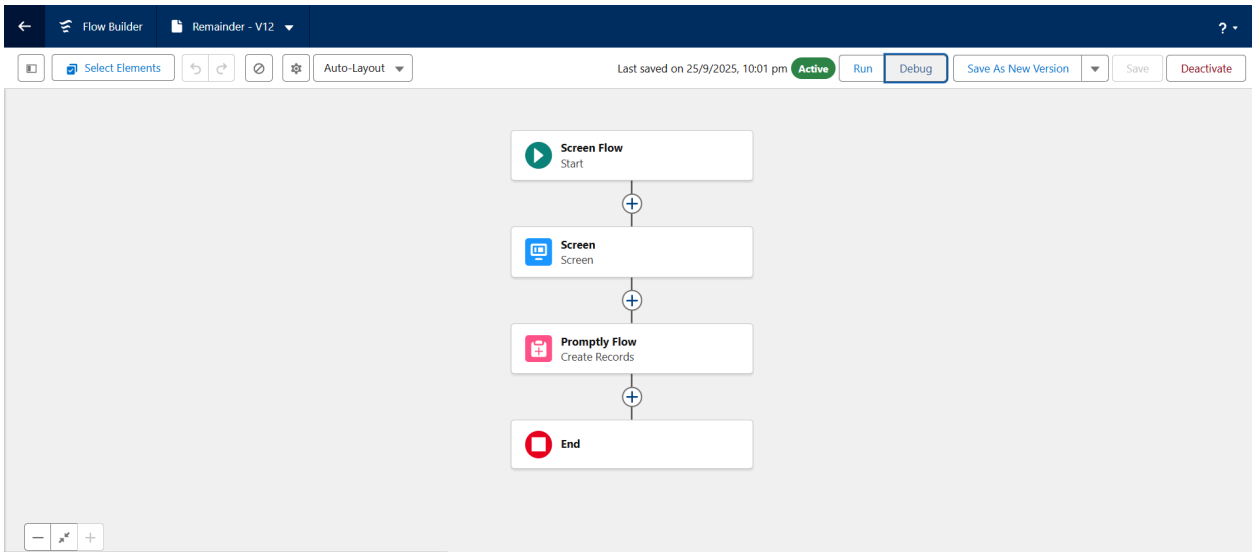
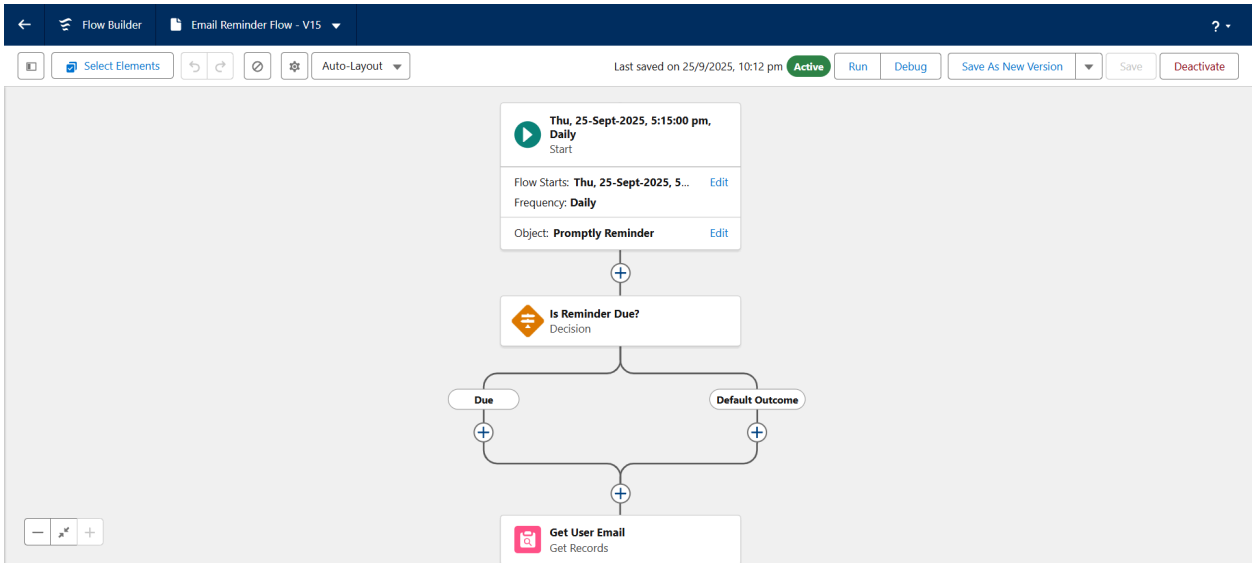
### 4.2 User Feedback and Status System

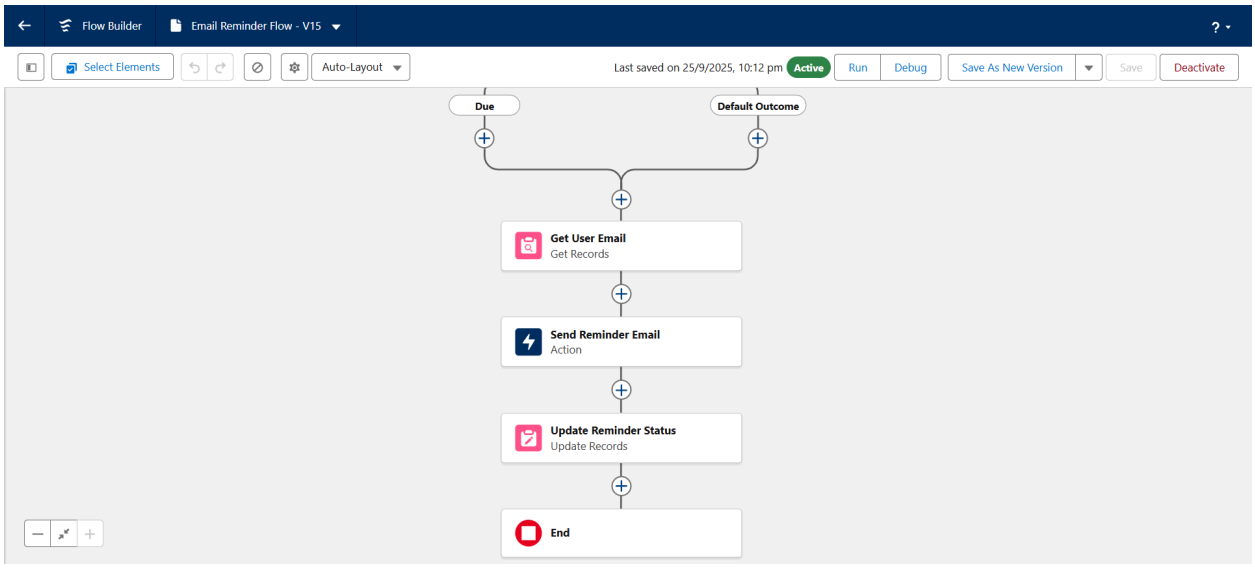
- **Purpose**: To provide the user with real-time, professional feedback on the status of the automated process, replacing traditional system alerts.
- **Key Features**:
    - **Initial Confirmation**: Status message updates immediately upon button tap to confirm the microphone is active ("Listening...").
    - **Success Acknowledgement** : Status updates upon successful transcription with the exact reminder text and the time set ("Reminder set: 'Go to meeting'").
    - **Error Handling**: If the Web Speech API fails (e.g., no microphone access), the status message provides a user-friendly error prompt.

## Screen Flow:

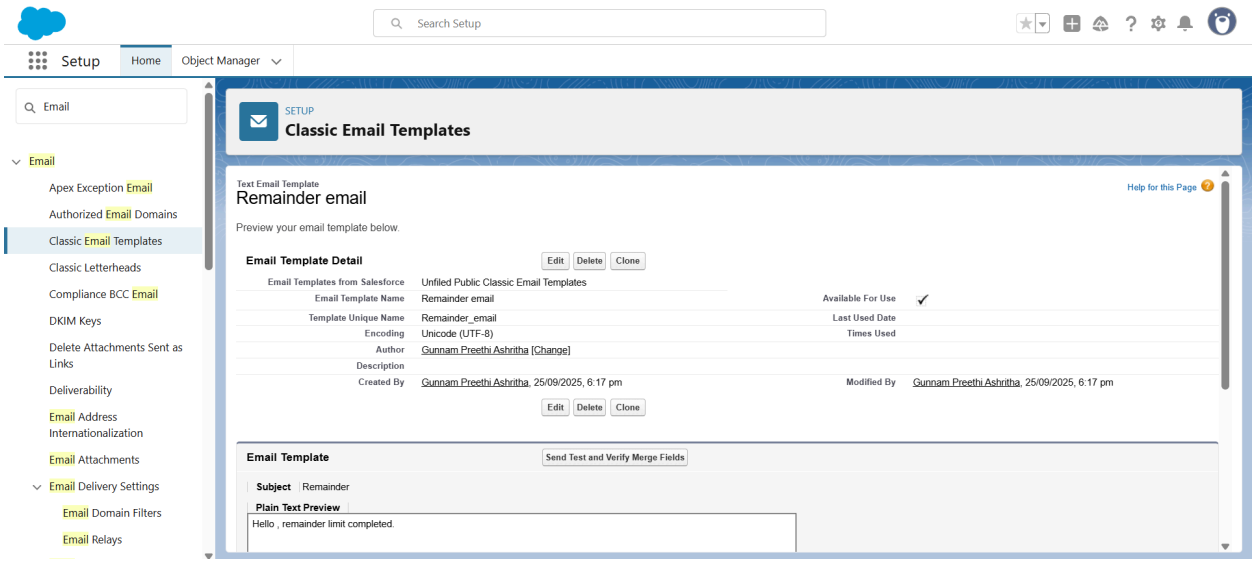



## Email Flow :

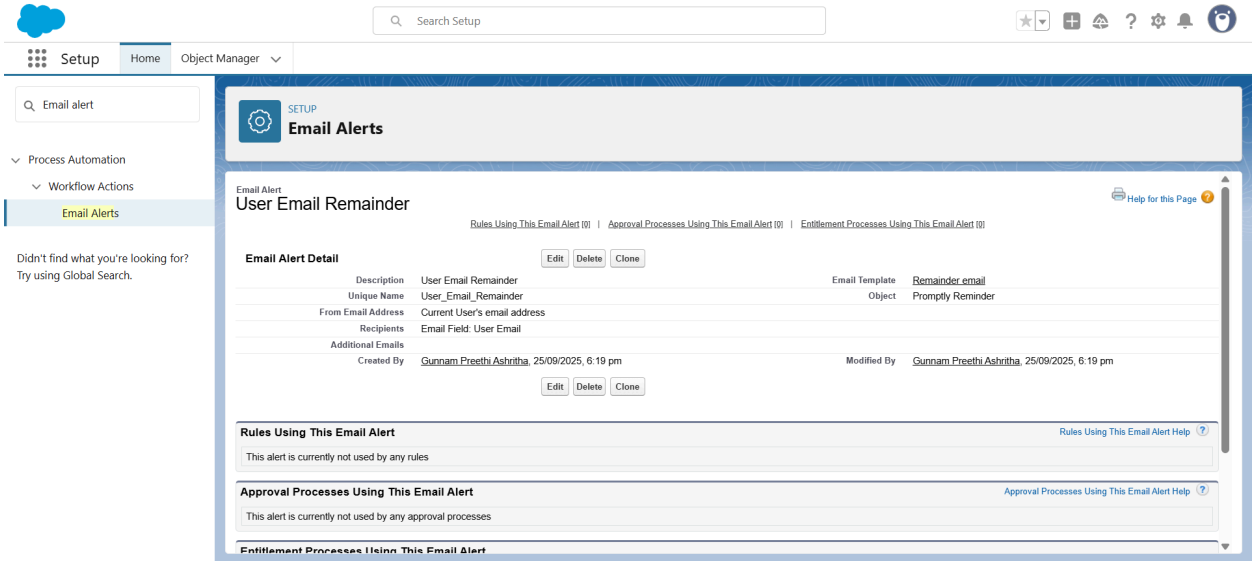





## Email Template :



**Email Alerts:**

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### 4.3 Comprehensive Testing Strategy

- **Purpose**: Ensure reliability across all core application scenarios, as the simplicity of the app requires a 100% success rate in its primary function.
- **Test Cases Executed**:
    - **Normal Flow**: Standard process (Tap → Speak → Notification) verified.
    - **Edge Cases**: Testing with both very short (1-2 words) and long (15+ words) phrases to confirm robust transcription.
    - **Error Scenarios**: Verification of graceful failure when microphone access is denied or unavailable.
- **Validation Results**:
    - **Transcription Accuracy**: Verified.
    - **Timer Precision**: Verified the `setTimeout` function accurately triggers the notification after completion of the timer.
    - **Notification Integration**: Verified the final reminder is pushed successfully across different desktop and mobile browsers.

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### 4.4 Business Impact Achieved

- **Operational Efficiency**:
    - **Time Savings**: Reduces the mental overhead and time spent switching to complex reminder apps to virtually zero.
    - **Accuracy**: Eliminates human error in transcribing a sudden thought.

- **User Experience**:
    - **Immediate Capture**: Thoughts are captured instantly through voice.
    - **Frictionless Design**: The entire interaction is a single automated action, ensuring the user is returned to their main task without distraction.