Subject: Submission 2- Detail Requirements

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1. Stakeholder Characterization:

- **End-users (people with dyslexia):** The primary audience who will use the system to improve their typing skills and overcome challenges related to dyslexia.
- **Teachers:** Individuals who will monitor and track the progress of their students. Teachers may need reports on typing accuracy, frequently misspelled words, and other performance metrics.
- **Researchers/Data Analysts:** They will utilize the data gathered from users' typing behaviors to analyze trends, effectiveness, and areas that need improvement.

2. Key Functions and Features (from the end user's perspective):

- **User Account Management:**
  - Users should be able to create an account, log in, and access their personalized learning data.
  - The system should allow password recovery and profile editing.
- **Typing Skill Tracking:**
  - Track the user's typing speed and accuracy, identifying frequently misspelled words and problematic patterns.
- **Progress Reports:**
  - Display graphs and detailed statistics on typing improvement over time.
  - Allow users to visualize progress, such as reduced error rates or increased speed.
- **Personalized Exercises:**
  - Provide exercises focused on improving the most misspelled words.
  - Exercises should adapt based on user performance, providing more difficult challenges as skills improve.
- **Teacher Feedback Mechanism:**
  - Teachers can view a dashboard with a summary of their students' progress.
  - Teachers can access reports on frequently misspelled words and overall typing improvement.
- **Data Collection and Analysis:**
  - Gather and analyze typing data for educational purposes, generating insights for teachers or researchers.

3. Use Cases:

Use Case 1: Register for an Account

- **Pre-condition:** The user is on the registration page of the system.
- **Post-condition:** The user's account is created and they are logged into the system.
- **Basic Flow:**
    1. User inputs their email, username, and password.
    2. System validates the input and creates the user account.
    3. System displays a success message and redirects the user to their dashboard.
- **Alternate Flow:**
    - If the user's input is invalid, the system displays an error message and prompts the user to correct the input.

Use Case 2: Track Typing Accuracy

- **Pre-condition:** The user has logged into the system and is on their dashboard.
- **Post-condition:** The system updates the user's progress based on their typing performance.
- **Basic Flow:**
    1. User begins a typing exercise.
    2. System tracks the number of correctly typed words and errors.
    3. System provides immediate feedback on accuracy.
- **Alternate Flow:**
    - If the user encounters too many errors, the system might offer hints or simpler exercises to help the user improve.

4. User Stories (Functional Requirements):

- **User Story 1:**
  As a user, I want to register an account so that I can track my typing progress.
    - **Acceptance Criteria:**
        - The user can successfully create an account with valid details.
        - An email confirmation is sent to the user after registration.
- **User Story 2:**
  As a teacher, I want to monitor my students' typing progress so that I can provide targeted assistance.
    - **Acceptance Criteria:**
        - Teachers can view a dashboard summarizing student performance.
        - The dashboard includes statistics such as accuracy, typing speed, and commonly misspelled words.