Prompt for Loveable: Hand/Wrist Injury Research Website

Project Overview

Create an interactive research website for patients with hand/wrist injuries that follows a specific user flow for tracking range of motion (ROM) measurements. The website will use MediaPipe for body point pose recording of users' hands and wrists.

User Flow Requirements

The website must implement the following flow exactly as described:

1. **User Landing**: User arrives at the website
2. **Code Entry**: User enters a unique 6-digit code
3. System must determine if this is a first-time or returning user
4. **First-Time User Path**:
5. User is directed to select their hand/wrist injury type
6. After selection, user proceeds to assessment list
7. **Returning User Path**:
8. User bypasses injury selection
9. User goes directly to assessment list
10. **Assessment Flow**:
11. User views list of assessments to record
12. User selects and watches video of assessment to perform
13. User uses MediaPipe to record body point pose of hand/wrist ROM
14. If more assessments remain, user returns to assessment list
15. If complete, user sees thank you screen

Technical Requirements

Frontend

- Responsive design that works on mobile and desktop
- Clean, accessible interface suitable for patients
- Real-time hand tracking visualization

- Progress indicators for multi-step process
- Video player for assessment instructions

Backend

- User identification via 6-digit codes
- Storage of user data and assessment progress
- API endpoints for all user interactions
- Secure data handling

MediaPipe Integration

- Implement hand landmark detection using MediaPipe
- Track and visualize 21 hand landmarks in real-time
- Record ROM data during assessments
- Provide visual feedback during recording

Data Storage

- Store user identification codes
- Track assessment completion status
- Save recorded pose data for research

Design Guidelines

- Use a medical/healthcare aesthetic with a professional look
- Ensure high contrast and readability for all users
- Provide clear instructions at each step
- Use visual cues to guide users through the process

Implementation Notes

- MediaPipe hand tracking requires camera access
- The application should work in modern browsers
- Consider privacy and data security best practices
- Include error handling for camera permission issues

Deliverables

1. Complete web application following the specified flow
2. Source code with documentation

3. Deployment instructions
4. User guide explaining how to use the application

Reference Materials

- MediaPipe Hand Landmarker documentation: https://developers.google.com/mediapipe/solutions/vision/hand_landmarker
- Example of hand tracking visualization
- Flowchart of the user journey (attached)

This website will be used for research purposes to track patients' hand and wrist recovery progress through standardized assessments.