

# Project Vision Statement

Project Name: **ConnectAble**

## Team Info

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## Industry Partnership Info

Company	Mentor Name	Email
Artera	Anav Sanghvi	<a href="mailto:Anav.Sanghvi@artera.io">Anav.Sanghvi@artera.io</a>

Artera, formerly known as Well Health, is a technology platform that enhances patient communication by streamlining the workflow for healthcare professionals. It automates routine tasks such as scheduling and sending reminders, allowing healthcare teams to focus more on patient care and less on administrative duties.

## Project Overview

ConnectAble is a software platform designed to bridge communication gaps between individuals with disabilities and disorders—such as blindness, deafness, or mutism—and service providers. These communication gaps can include difficulty in communicating diagnoses, treatments, and care instructions for people who are hard of hearing due to a lack of sign interpreters ([Oxford Academic](#)), difficulty accessing and communicating with emergency medical services ([Oxford Academic](#)), and difficulty for visually impaired people to access medical paperwork and documents ([Am J Med Qual](#)). Our app, ConnectAble, leverages advanced technology, such as voice-to-text and text-to-voice conversion, screen readers, live-captioned video calls, and more, to ensure that all users can communicate seamlessly regardless of their specific needs. By breaking down communication barriers and providing accessible tools, ConnectAble makes healthcare more inclusive, ensuring that individuals with disabilities can access the care they need without additional hurdles.

# Problem Significance

Millions of people with disabilities face communication challenges with service providers, leading to miscommunication, delayed treatments, and reduced access to essential services. Traditional methods often fail to accommodate their unique needs, creating barriers to effective care. Individuals who are blind, deaf, or mute frequently rely on third parties or inaccessible tools, worsening inequities. As a result, it is estimated people living with disabilities live an average of ten to twenty years less ([medRivx](#)). Additionally, people with disabilities, specifically blind people, tend to visit the doctor/dentist less often ([Washington Post](#)). Our solution is a convenient, all-in-one platform that connects users with others who share their challenges and enables direct communication with healthcare providers, empowering them to take control of their care and live a healthier, more independent life.

## Current Solutions

- Care.com: a website that connects caregivers with families and individuals who need care services. They primarily specialize in child care, senior care, pet care, housekeeping, and tutoring. The platform facilitates the process of helping people in need find trusted care providers while offering caregivers access to job opportunities.
- Be My Eyes: a mobile app that helps connect visually impaired users to volunteers who assist them through the use of smartphone cameras in tasks requiring visual aid
- Ava: a mobile app that transcribes speech to texts in real-time
- Medisafe: medication management/reminder app for people with visual or auditory impairments

## Project Outcomes

The platform aids individuals with disabilities to access medical care independently and with more confidence. It offers comprehensive accessibility tools like voice-to-text, screen reader support, and live video captions, ensuring equal access for all. The app streamlines service coordination, allowing users to schedule appointments, receive reminders, and communicate directly with care providers. Real-time communication tools adapt to each user's needs, enabling smoother interactions and reducing reliance on third parties.

## Key Features

### Accessibility

- Voice-activated scheduling
- Video/remote check-ins
- Emergency assistance button
- Multi-language support
- Voice Control & Navigation
- Screen Readers & Magnification
- Text-to-Speech / Speech-to-Text
- Closed Captioning

- Color Contrast and Customizable UI

#### First-time User Setup

- Customizable profiles based on user's needs/disabilities
- Easy to choose which interface you want (show on screen and make noise)

#### Transparent Job listings

- Client-side: reels and reviews, AI-powered service matching, video/remote check-ins, history of caregiver

#### Other Key Features

- Integration with Apple Watch for biometric data and location tracking
- Notifications to both user and caregiver for custom reminders
- Scheduling calendar
- Community forum

## Technologies

Front-End: React Native (mobile) or Swift

Back-End: Node.js, Express, GraphQL/REST API, WatchKit Framework

Database: PostgreSQL, Firebase/Firestore

Real-Time Communication: Twilio, WebRTC, Socket.io

AI/ML: TensorFlow/PyTorch, Google Cloud AI, ChatGPT API

Accessibility Tools: Google Speech-to-Text API, VoiceOver, Xcode Accessibility Inspector

Notifications: Firebase Cloud Messaging, Apple Notifications

DevOps & Hosting: AWS/Google Cloud, Docker, Kubernetes

Security: Firebase Auth, HIPAA-compliant encryption, 2FA

Analytics: Google Analytics, Sentry

Platform: VS Code / Xcode

Physical Devices: Apple Watch, iPhone

## Process Model

**Agile Approach:** Ensure flexibility, adaptability, and continuous delivery of value. By breaking down the project into iterative sprints, we can focus on delivering working features in small increments, adapting to user feedback, and changing requirements as we go.

**Design Phase:** Create user flows for key tasks like scheduling appointments and develop fully accessible UI/UX designs for individuals with visual, auditory, or speech impairments. User research will inform us how users interact with the app.

**Development Phase:** During sprints, develop specific functionalities and hold daily standups to track progress and address roadblocks. The product backlog is refined based on team and mentor feedback.

**Testing Phase:** At the end of each sprint, conduct reviews to demo new features and perform accessibility testing with users from various disability groups. Post-sprint retrospectives identify improvements for future sprints.

**Deployment:** Launch the platform on iOS.

**Continuous Improvement:** Gather user feedback to enhance accessibility features and introduce new ones, ensuring we meet user needs and improve their quality of life.