Project Title: AiSL | Team Members: Ikran Warsame, Fareena Khan, Elshaddai Melaku

Goal Statement: Provide a learning tool for people to learn American Sign Language extensively in sentences and grammar.

For this assignment, your project team will produce a list of milestones and two tables indicating your project timeline and individual efforts on specified tasks.

Milestones List:

1. Project Setup and map out the architecture design
   a. Set up the coding and developing environment. Find a way to integrate all the tools needed to produce our application. Find the best way to host our application.
2. UI Prototype Design
   a. Design the layout of our application. What the user would want to have, what functionalities we should implement, and conduct interviews of best design to our intended audience if needed.
3. ASL Grammar research
   a. Research and familiarize ourselves with ASL grammar. Understand the rules and practices. Double check with experts if needed.
4. Build an English to ASL conversion pipeline
   a. Research the best or most efficient method for the translation of English sentences to ASL gloss. Find resources we can utilize. Test and tweak as we build it. Test it with ASL speakers.
5. Prepare 3D avatar
   a. Design 3D avatar. Test it with random motions at first after it gets built. And then, show the avatar to potential users and get feedback. Tweak when necessary.
6. Link ASL output to avatar animations
   a. Test avatar with ASL signs. Create criterias of what we want the avatar to look like and move to know when we are completed. See how successfully avatar signs in the correct order utilizing the output.
7. Ensure smooth playback and interaction
   a. Test the avatar signing speed, if it can playback previous signs, if users can easily interact.
8. Test app flow
   a. Test if everything, all the functionalities can smoothly interact with each other. Does the input for the user connect well to what the avatar outputs, for example.
9. Evaluate and refine accuracy
   a. Test the avatar with example inputs. Test the application's functionalities and see if anything needs to be tweaked or changed.
10. Final integration and system test
    a. Test the application as if we are a user. Test it with users not the developers. See how they interact with it and if there are any last tweaks needed. Test it with our advisor.
11. Prepare for demo
    a. Prepare a presentation and demo of our application. Make sure if it needs to be publicly hosted. Finalize all documentation. Prepare any instructions if needed for our users testing our demo.

Table 1. Timeline:

Task/Milestone	Start Date	End Date
Project Setup and map out the architecture design	Oct 15	Nov 15

UI Prototype Design	Nov 10	Nov 18
ASL Grammar research	Nov 15	Dec 20
Build an English to ASL conversion pipeline	Dec 15	Jan 20
Prepare 3D avatar	Dec 15	Jan 20
Link ASL output to avatar animations	Jan 20	Feb 5
Ensure smooth playback and interaction	Feb 1	Feb 15
Test app flow	Feb 15	Feb 18
Evaluate and refine accuracy	Feb 18	Feb 26
Final integration and system test	March 10	March 13
Prepare for Demo	March 15	March 20

Final demo day: April 7th, 2026

Table 2. Effort Matrix:

Task	Ikran	Elshaddai	Fareena
Project setup and initial design	33%	33%	33%
Project Setup and map out the architecture design	33%	33%	33%
UI Prototype Design	25%	25%	50%
ASL Grammar research	50%	25%	25%
Build an English to ASL conversion pipeline	25%	50%	25%
Prepare 3D avatar	50%	25%	25%
Link ASL output to avatar animations	25%	25%	50%
Ensure smooth playback and interaction	50%	25%	25%
Test app flow	25%	50%	25%
Evaluate and refine accuracy	25%	50%	25%
Final integration and system test	33%	33%	33%
Prepare for Demo	33%	33%	33%