Development Plan
Software Engineering

Team #23, Project Voices
Savinay Chhabra
Amanbeer Singh Minhas
Gourob Podder
Ajay Grewal

Table 1: Revision History

Date	Developer(s)	Change
September 21, 2025	Savinay Chhabra	Created Draft Development Plan; Sections 1, 2, 3, 4, 5, 7
September 22, 2025	Savinay Chhabra	Sections 6, 8

This report outlines the development plan for the Aura Voice AI Assistant. The document details the following sections of the Development Plan:

- Confidentiality Information
- IP Protection
- Copyright License
- Team Meeting Plans
- Team Communication Plans
- Team Member Roles
- Workflow Plan
- Project Decomposition and Scheduling
- Proof of Concept Demo Plan
- Expected Technology
- Coding Standard

1   Confidential Information?

There is no confidential information to protect.

2   IP to Protect

There is no IP to protect.

3   Copyright License

This project adopts the MIT License. LICENSE file can be found here.

4   Team Meeting Plan

The Team will meet every Wednesday from 4:00PM - 4:45PM in person. Campus library meeting rooms will be booked weekly, depending on availability.

- A rotating chair will lead each meeting and prepare the meetings´ agenda in advance.
- A rotating notetaker will record meeting minutes, action items and decisions made in the meeting.

- Feature requests and Decisions will be documented using Github Issues

- Meetings with graduate students speacializing in Human-Computer Interfaces will occur biweekly. These will either be virtual or in-person depending on availability.

5   Team Communication Plan

Urgent issues or clarifications will be communicated through Discord. Discord will also be used for any virtual meetings between the team. Meetings with industry advisors and graduate students will take place over MS Teams if held virtually. Github issues will the the source of truth for techincal information and progress tracking.

6   Team Member Roles

Table 2: Team Member Roles

Role	Responsibilities	Member(s
Meeting Chair	Sets meeting agenda and leads weekly meetings	Rotates weekly
Note Taker	Records meeting minutes and decisions	Rotates weekly
Team Liaison	Primary point of contact for project supervision and industry advisors	Savinay Chhabra
Subject Matter Expert	Develops deep knowledge of the projectś domain	Gourob Podder
Test Lead	Responsible for planning, organizing and overseeing testing process.	Amanbeer Singh Minhas
Reviewer	Responsible for evaluating Pull Requests to ensure that they adher to team standards.	Ajay Grewal

7 Workflow Plan

- Each Feature/Bug/Defect will have a Github Issue created for it. This issue will included detailed information along with current progress, assignee and appropriate labels. Github Projects will be used to track all incoming and in-progress issues.

- Each Issue will a branch for any associated development work to be done.

- Once the author is satisfied with their solution, they can put up a Pull Request to merge their changes into the main branch. Each Pull request must link to one or more issues and have a detailed description of the changes made and the user impact of those changes.

- After the Pull Request has been raised and all required pre-submit checks have succeded, the author can add the "Review Needed" label to their PR.

- Each PR must have at least 2 reviewers. After the reviewers have approved, the PR can be merged and the associated issues can be closed.

8 Project Decomposition and Scheduling

The team will use the Kanban Board on Github Projects to track incoming and in-progress issues. The Board for the project can be found here: TODO:ADD LINK HERE.

Table 3: Project Scheduling

Deliverable	Deadline
Problem Statement, POC Plan, Development Plan	September 22, 2025
Req. Doc. and Hazard Analysis Revision 0	October 6, 2025
V&V Plan Revision 0	October 27, 2025
Design Document Revision -1	November 10, 2025
Design Document Revision 0	
Revision 0 Demonstration	
V&V Report and Extras Revision 0	
Final Demonstration (Revision 1)	
EXPO Demonstration	
Final Documentation (Revision 1)	April 06, 2026

9 Proof of Concept Demonstration Plan

What is the main risk, or risks, for the success of your project? What will you demonstrate during your proof of concept demonstration to convince yourself

that you will be able to overcome this risk?

10   Expected Technology

[What programming language or languages do you expect to use? What external libraries? What frameworks? What technologies. Are there major components of the implementation that you expect you will implement, despite the existence of libraries that provide the required functionality. For projects with machine learning, will you use pre-trained models, or be training your own model?   —SS]

[The implementation decisions can, and likely will, change over the course of the project. The initial documentation should be written in an abstract way; it should be agnostic of the implementation choices, unless the implementation choices are project constraints. However, recording our initial thoughts on implementation helps understand the challenge level and feasibility of a project. It may also help with early identification of areas where project members will need to augment their training. —SS]

Topics to discuss include the following:

- Specific programming language

- Specific libraries

- Pre-trained models

- Specific linter tool (if appropriate)

- Specific unit testing framework

- Investigation of code coverage measuring tools

- Specific plans for Continuous Integration (CI), or an explanation that CI is not being done

- Specific performance measuring tools (like Valgrind), if appropriate

- Tools you will likely be using?

[git, GitHub and GitHub projects should be part of your technology. —SS]

11   Coding Standard

The team will strictly adhere to and follow the following coding standards to ensure clarity, maintainablity and readability:

-

[What coding standard will you adopt? —SS]

5

Appendix — Reflection

The purpose of reflection questions is to give you a chance to assess your own learning and that of your group as a whole, and to find ways to improve in the future. Reflection is an important part of the learning process. Reflection is also an essential component of a successful software development process.

Reflections are most interesting and useful when they're honest, even if the stories they tell are imperfect. You will be marked based on your depth of thought and analysis, and not based on the content of the reflections themselves. Thus, for full marks we encourage you to answer openly and honestly and to avoid simply writing "what you think the evaluator wants to hear."

Please answer the following questions. Some questions can be answered on the team level, but where appropriate, each team member should write their own response:

1. Why is it important to create a development plan prior to starting the project?

2. In your opinion, what are the advantages and disadvantages of using CI/CD?

3. What disagreements did your group have in this deliverable, if any, and how did you resolve them?

Appendix — Team Charter

[borrows from University of Portland Team Charter —SS]

External Goals

[What are your teamś external goals for this project? These are not the goals related to the functionality or quality fo the project. These are the goals on what the team wishes to achieve with the project. Potential goals are to win a prize at the Capstone EXPO, or to have something to talk about in interviews, or to get an A+, etc. —SS]

Attendance

Expectations

[What are your teamś expectations regarding meeting attendance (being on time, leaving early, missing meetings, etc.)? —SS]

Acceptable Excuse

[What constitutes an acceptable excuse for missing a meeting or a deadline? What types of excuses will not be considered acceptable? —SS]

In Case of Emergency

[What process will team members follow if they have an emergency and cannot attend a team meeting or complete their individual work promised for a team deliverable? —SS]

Accountability and Teamwork

Quality

[What are your teamś expectations regarding the quality of team membersṕreparation for team meetings and the quality of the deliverables that members bring to the team? —SS]

Attitude

[What are your teamś expectations regarding team membersídeas, interactions with the team, cooperation, attitudes, and anything else regarding team member contributions? Do you want to introduce a code of conduct? Do you want a conflict resolution plan? Can adopt existing codes of conduct. —SS]

Stay on Track

[What methods will be used to keep the team on track? How will your team ensure that members contribute as expected to the team and that the team performs as expected? How will your team reward members who do well and manage members whose performance is below expectations? What are the consequences for someone not contributing their fair share? —SS]

[You may wish to use the project management metrics collected for the TA and instructor for this. —SS]

[You can set target metrics for attendance, commits, etc. What are the consequences if someone doesń́t hit their targets? Do they need to bring the coffee to the next team meeting? Does the team need to make an appointment with their TA, or the instructor? Are there incentives for reaching targets early? —SS]

Team Building

[How will you build team cohesion (fun time, group rituals, etc.)? —SS]

Decision Making

[How will you make decisions in your group? Consensus? Vote? How will you handle disagreements? —SS]