

TANavApp / TANA

Project Management Plan

Team Members

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1. Introduction

1.1 Project overview

The object of the TANavApp is to provide direction for users navigating the Theatre-Arts building on the Cal Poly Humboldt campus, with an emphasis on accessibility for the visually impaired.

It will achieve this by calculating a preferred path between two arbitrary points in the building and directing the user down this path (through both visual and audible elements).

1.2 Project deliverables

Phase	Deliverable
1.1	Project Management Plan
1.2	Requirements Specification Document
1.3	Prototype
2.1	Vision Document
2.2	UML Models
2.3	Prototype 2

1.3 Evolution of document

This section will evolve as the project evolves and will be updated with revision information over time.

Revision Number	Date of Revision	Revised By	Summary of Update
1.0	12-Sep-2023	All	Formation of PMP Document
1.1	19-Oct-2023	Brennan Duffy	Update meeting times, add new tools, miscellaneous small changes.
2.1	14-Nov-2023	Brennan Duffy, Ambrose Sturgill, Alex Georgopoulos	Updated project deliverables, assumptions & constraints, and risks

1.4 References

Will be addressed at a later phase of the project.

1.5 Definitions, acronyms, and abbreviations

TANA Theater-Arts Navigation App

2. Project organization

2.1 Process model

We'll be using the Agile model for our project. It's important that our product receives frequent feedback from users and subject matter experts to ensure that we are meeting our requirements throughout the process. Agile focuses on quick iteration that allows for frequent input from outside the team, keeping us up to date with the evolving requirements of potential users.

2.2 Organizational structure

We have 4 team members who will share similar responsibilities during this project. During each phase, we will appoint a team leader that will direct the rest of the team during this phase. The primary purpose of the leader is to drive the phase forward by organizing group meetings and suggesting phase goals.

2.3 Organizational boundaries and interfaces

Our team will communicate asynchronously through a team Discord and synchronously through team meetings held as needed on Tuesdays and Thursday from 3pm to 4pm.

2.4 Project responsibilities

The team will divide responsibilities for each phase of the project amongst themselves. We will decide on a case by case basis which team member will take primary responsibility for each aspect of the project.

3. Managerial process

3.1 Management objectives and priorities

The team leader will be responsible for determining the objectives for each phase, assigning roles for team members, and leading team meetings.

3.2 Assumptions, dependencies, and constraints

The assumptions for this project are:

- The TANA will primarily be used by visually impaired individuals
- Users of the TANA will have access to short-range navigation equipment if necessary (e.g. a cane)
- User will have an emergency contact to call in the event of an emergency

The dependencies for this project are:

- Design documentation

The constraints for this project are:

- Time
- Platform familiarity
- Available data
- Phone features
- Technical feasibility of obstacle detection

3.3 Risk management

No.	Risk	Type	Likelihood	Description
1	Failure to meet deadlines for deliverable.	Managerial	Low – High potential impact	Failure to produce deliverables on time.
2	Requirements change	Technical	Likely – High potential impact	Requirements of the project get updated
3	Coding Errors	Technical	Moderate – High Potential Impact	Semantic errors
4	Lack of team member's commitment	Managerial	Likely – Medium potential impact	Indecision or lack of communication
5	Insufficient demand for system	Financial	Low – High Potential Impact	Inability to sell the product to users

3.4 Monitoring and controlling mechanisms

No.	Risk	Monitoring and Controlling
1	Failure to meet deadlines for deliverable.	- Frequent testing and adjustable schedules.
2	Requirements change	- Modular coding that operates

		off a dynamic base.
3	Coding Errors	- Compile time debugging
4	Lack of team member's commitment	- Notate the issue in group
5	Insufficient demand for system	- Monitor usage statistics - Establish demand early on via questionnaires

4. Technical process

4.1 Methods, tools, and techniques

For modeling, we will use a combination of Lucidchart and Mermaid to develop our UML diagrams.

For prototyping, we will use Proto.io.

For text-to-speech, we will use the Murf AI tool.

For word processing, presentation, and collaboration, we will use the Google Suite, primarily Docs and Slides.

4.2 Software documentation

Will be addressed at a later phase of the project.

4.3 Project support functions

Will be addressed at a later phase of the project.

5. Work elements, schedule, and budget

- The team leader will be assigned based on rotation
- The team will meet as needed on Tuesdays and Thursdays from 3:00pm to 4:00pm to discuss the schedule and plan for each phase
- We have a flexible budget of \$0.00