ITAS 164

Project Plan

Mikaela Knutson, Aidan Maude, Joey Bueckert

10 February 2025

User Stories

Below are the user stories decided upon for this project.

User Story #1

As a grandmother, I want to have a digital picture frame that looks like a painting, because I don't like looking at LED screens all the time.

User Story #2

As someone who is tired of downloading apps for everything on their phone, I want to have a solution that relies on a simple webpage upload, without worrying about companies having access to my data.

User Story #3

As an elderly person, I don't want to have to worry about recharging batteries every week, or needing to have a constant power supply.

User Story #4

As a teacher who wants to use this in their classroom, I want to be able to limit access to the frame.

User Story #5

As a student, I want to engage with my other classmates in a gamified environment to encourage friendly competition and boost class morale.

WBS Table

WBS	Task Name	Duration	Predecessors	Resource Names
1	**As a user, I want to have a digital picture frame that looks like a painting**	**12 days**		
1.1	Plan and build physical frame	7 days	6	Aidan
1.2	Research Floyd-Steinberg dithering for colour palette	3 days		Mikaela
1.3	Test all physical connections within frame dimensions	1 day	2	Team
1.4	Finalize complete product assembly / server integration	3 days	2,4	Team
1.5	Receive hardware shipment	1 day		Team
2	**As a user, I want to use a simple webpage to upload photos**	**6 days**		
2.1	Set up web server	3 days		Joey
2.2	Set up file server	3 days		Mikaela
2.3	Implement server to server connectivity	2 days	8,9	Team
2.4	Test WAN functionality between servers	1 day	10	Team
2.5	Develop webpage UI	2 days		Aidan
3	**As a user, I want easy power management**	**3 days**		
3.1	Assemble power management modules to verify compatibility	1 day	6	Team
3.2	Address any unforeseen power hardware incompatibilities if needed	1 day	14	Mikaela
3.3	Test battery life on final product	1 day	14,15	Joey

4	**As a user, I want to be able to limit who can upload photos**	**7 days**		
4.1	Research authentication strategies	1 day		Mikaela
4.2	Implement secure upload method to web server	3 days	18,12,8	Aidan
4.3	Stress test security method to ensure it works	1 day	19	Joey
5	**As a user, I want to have an engaging reason to frequently upload images**	**7 days**		
5.1	Brainstorm gamification method (themes, leaderboards, streaks, etc.)	1 day		Team
5.2	Implement decided method on website	3 days	8,22,12	Aidan
5.3	Test gamification method in classroom setting	1 day	23	Team

Scratch Notes:

Project Notes:

- dithering types?
- Linux types for file and web server: rocky or mint
- will need to look into port stuff for web server hosting
- Other apps we could use besides MS:
• Notion
• Trello
• Jira