# DaySave.app Project Proposal

### Certificate in Software Development – MCSD51

### Future Skills Training

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## 1. Introduction

DaySave.app is designed to solve a modern digital problem: people frequently find valuable or interesting social media and web content but struggle to retrieve it later. Traditional bookmarking tools lack smart tagging, search, and context-aware organization. DaySave.app provides a solution by allowing users to save, tag, and comment on content, while also receiving help from AI features to summarize or categorize the content. Great applications are built with Trust, Security and Compliance in mind and for that reasson DaySave.appis desinged as SelfHosted first.

### 1.1 Motivation and inspiration

While “scripting” in IT for a livetime and occationally “tinkering” with small applications I have joind FutureSkills MCSD51 to gain a more in depth and structured understanding of how software projects are comming to live. I have chosen daysave.app as my project, knowing that it may challanging in complexity and a strech in the scope of the class. I am intrested in not only the basics but also how AI can support the learning and effects efficiency in aspiring developers. The application is derived from my dayly needs in storing a variate of content for futer reserch.

I wentured out and bought a the daysave domain name to use in the project then started the reseach. (see alternatives\_inspiration.md).To my surprise I found may similar projects some of them even opensource and some of them commersical.

I also tried to keep the techstack close to what has been tought in class but did want to explore technologies assiting advanced authentication (passoport) and ways to be able to change the database schema dynamically (Squalize). See the full techstack in [daysave.app/docs/md/tech\_tools\_accounts.md](https://github.com/andyegli/daysave.app/blob/main/docs/md/tech_tools_accounts.md)

Since I have a need in my every day live to work with docker, clouod hosting and devops, I also wanted to learn more about devcontainers and try to creat the project in such a container. And lastly I struggled producing quality diagrams untill i discovered PlantUML allowing me to generate these dynamically from code. Therefore I included PlantUML in my techstack.

## 1.2. Project Team

The project sponsor and developer is Andy Egli.

Stakeholders include Future Skills Academy tutors who will assess the project.

Users of the platform are individuals who regularly browse digital content and wish to organize it intelligently for future access.

## 1.3. Outcomes

The expected outcome of this project is a functioning web application (Phase 1) that includes secure registration/login, a conent page to search and display saved content also features to tag, conmment, share content with contacts and manage contact groups.

In a fist step I am trying to implent the the a proper project structure on github and implement basics in accordance to the [work breakdown structure](https://github.com/andyegli/daysave.app/blob/main/docs/md/project_wbs.markdown). I would like to see the schema generation to come to live and also some initial pages Landing page, Login page, Conent management, Contact management to meet the requiremens for the coourse. Depending on the progress I hope I will be able to present the project runing hosted in google cloud with is wehere we manage most of our clients systems in real live and provide servises for our customers.

## 2. Scope

Given the time constraints and limited resources, in phase 1 we will will focus on delivering a propperly structured and well documented project scafold including functional web app that allows users to:

* Register/login securely using email or OAuth (Google)
* Save links to digital content (URLs) as URLs
* Add tags, comments, content type and platform info to each item
* View saved content in a tile sile layout content management page
* Search and sort items by tags, dates, types and platforms

The backend will use Node.js with Express, the frontend will use EJS and Bootstrap, and MySQL/MariaDB will handle persistent data. Since our intrest is in devops style deployment we aim to deliver the project containerised using devcontainers and deply on GCP.

## 2.1 Additional Phases (Out Of Scope)

I leave phase numbering off at this stage as we are not sure yet in what order we are moving forward.

* Deployment to google cloud implemented
* CI/DI tested and implemented
* Testing automation implemented
* Phase: Users have contacts and groups and can share content - Share content with selected contacts or contact groups - Allow contacts to tag and comment on shared items
* Contacts view shared content and can reply to shared contacts after registration
* UX polished and audit implemented
* AI Integration on backend for content classification summarization and transcription implemented
* Stripe and PayPal integrated
* Scheduled content reminders added

## 2.2 Constraints

Time constraint: Project end date set to 31/8/2025 Resource constraint: Single Novice Developer with limited time currently traveling in Switzerland Privacy is a big topic and we will have to investigate how the privacy laws impact the project

## 3. User Stories and Use Cases

User stories are detailded and ocumented in the repo at [docs/md/daysave\_user\_stories.md](https://github.com/andyegli/daysave.app/blob/main/docs/md_aeg/daysave_user_stories.md)

At this stage we have not introduced a identification system for use cases and user stories

## 3.1. User Stories:

Here some of the basic user stories follwoing initial brain storiming:

* As a guest, I want to be able to explore the home page
* As a guest, I want to be able to register for a trial and become a user
* As a user, I want to save and categorize interesting content.
* As a user, I want to easily find my stored linkss a user, I want to have
* As a user, I want to securely log in to be able to submit contnet url’s
* As a user, I want to share saved content with my contacts.
* As a contact, I want to view and comment on shared content.
* As a admin, I want to manage users
* As an admin, I want to monitor the system, view and ensure proper use.

## 3.2. Use Cases:

* Guest, User and Admins can brows home page
* Guest, User and Admin registration/login/reset password
* User Content submission, tagging, commenting
* User Sharing with contacts and group management
* User Searching/sorting of saved content
* Admin User management
* Admin audit log and dashboard

## 4. Ethical and Cultural Impact

The DaySave.app expands traditional NZ values in to a framework of responsible technology for 2025 and beyond: - Equity: regardless of culture or device, user can engage with the platform fully. - The content tagging & comments system is designed to support all language and cultural expression  
- Partnership: Involving diverse user groups in feedback loops. - Protection: Encrypting user data securely while in transit or at rest. - Respect Intellectual Property: No content is stored or copied - Fair Use: All comments and summaries are used for personal learning and note taking

It also avoids addictive behavior loops, respects copyright by not downloading media and ensures AI outputs are monitored for bias or inaccuracy.

## 5. SDLC Software Development Life Cycle

In this project we intend to use the Scrum methodology combined with DevOps practices. Scrum allows for fast, iterative development where features can be reviewed and improved with feedback. DevOps ensures code is tested, built, and deployed through automated pipelines.

* Work will be split into weekly sprints
* Tasks are tracked potenionally using Trello
* Docker and GitHub Actions manage the CI/CD (Continuous Delivery or Continuous Deployment) pipeline if there is enough time

## 6. Project Timeline

The project will be developed using a Scrum sprint approach: - Week 22-23: Research, requirements, schema design, user stories, Project Managemnt setup - Week 24-26: Frontend layout, user authentication (OAuth/email), sessions - Week 27-29: Content submission, tagging, search & sort dashboard - Week 30-31: Contact system and content sharing functionality - Week 32: Admin audit log, testing and documentation - Week 33: Polishing and improving  
- Week 34: Final deployment, report writing, peer review - Week 35: End of class

[Here access to the updated project Gantt Chart](https://github.com/andyegli/daysave.app/blob/main/docs/diagrams/out/project_gantt_chart.png)

Progress will be tracked using project management tools.  
Diagrams and logs will be updated as the project progresses.

## 7. Diagrams

The project includes several supporting diagrams: - Problem Domain Sketch: Outlines the environment and core entities - Use Case Diagrams: Divided by user type UserAuth, UserContent, UserContacts, AdminPanel etc - Database Schema: Normalized tables for users, content, tags, comments, contacts and relations etc

Diagrams are included as supporting files and visual references. As they are produced the are pushed to the git repo. [/docs/diagrams/out/](https://github.com/andyegli/daysave.app/blob/main/docs/diagrams/out/)

## 8. References

Project references are managed in the repo at [docs/md/daysave\_references.md](https://github.com/andyegli/daysave.app/blob/main/docs/md_aeg/daysave_references.md)

Additionally here references that where provided as part of the project template:

Future Skills Academy. (2025). Software Development Workbook.

GeeksforGeeks. (n.d.). Iterative and Incremental Development (IID). Retrieved from https://www.geeksforgeeks.org/iterative-and-incremental-development-iid/

Otago University. (n.d.). Academic Integrity and Plagiarism. Retrieved from https://www.otago.ac.nz/study/academicintegrity/

As of nowdate this concludes the project plan for daysave.app v1.0.1