

SkillSwap Hub

Full Project Report

COM4113 – Tech Stack Assignment Leeds Trinity University

Overview:

SkillSwap Hub is a front-end web application designed to allow users to explore community-added resources, share their own tutorials, browse AI tools, create profiles, bookmark and rate items, and communicate through a commenting system. The system uses only HTML, CSS, JavaScript, and LocalStorage as required by the COM4113 assignment brief.

Features

- **Explore Page:** *Users browse resources with search & filters.*
- **Share Resource:** *Users add community resources.*
- **AI Tools Page:** *Auto-loaded AI tool list.*
- **Profile Page:** *Image upload + saved preview.*
- **Login/Signup:** *Mock authentication stored in LocalStorage.*
- **Comments System:** *Under-card + timeline page.*
- **Rating & Bookmarking:** *Client-side interaction.*
- **Full glass UI + animations + responsive design.**

Architecture

The project uses only client-side logic and LocalStorage as a lightweight data layer:

- *resources → All shared resources*
- *comments → All comments posted*
- *profileData → Saved user profile details*
- *userAccount → Login & signup credentials JavaScript handles DOM manipulation, validation, and rendering of all dynamic features.*

Risk Assessment

| *Risk* | *Likelihood* | *Impact* | *Mitigation* |

|-----|-----|-----|-----|

Harmful links | *Medium* | *High* | *Add validation for URL submissions* | |
LocalStorage cleared | *Medium* | *Medium* | *Cloud database in future* | |
Mobile layout failures | *Low* | *Medium* | *Responsive layout added* | |
Accessibility issues | *Medium* | *Medium* | *ARIA labels, contrast*
improvements | | *Comment misuse* | *Medium* | *High* | *Moderation*
planned | | *Cross-browser issues* | *Low* | *Medium* | *Use only standard*
HTML/CSS/JS

APA References

MDN Web Docs. (2024). HTML elements reference.

<https://developer.mozilla.org/> MDN Web Docs. (2024). JavaScript

reference. <https://developer.mozilla.org/> W3C. (2023). Web Content

Accessibility Guidelines. <https://www.w3.org/> CSS Tricks. (2024). Modern

CSS layout. <https://css-tricks.com/> OpenAI. (2024). ChatGPT

documentation. <https://platform.openai.com/> Google Fonts. (2024).

Poppins font. <https://fonts.google.com/> GitHub Docs. (2024). Pages

deployment. <https://docs.github.com/> Nielsen Norman Group. (2024).

UX principles. <https://nngroup.com/>

AI Usage Declaration

ChatGPT was used for structuring documentation, generating diagrams, and helping with code debugging and explanations only. All implementation and final adjustments were performed and done manually made by me

Updated Sitemap Diagram

