

# 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/\*](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***

