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Course Name: Web Technologies

Cohort B

Sprint 3 Deliverables Report

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Sprint 3 Overview (Version 3.0)

GitHub Repository: https://github.com/athanase02/group5-swapit/tree/main/group
Branch: new-swapit-branch

1. FUNCTIONALITY COMPLETED

During this sprint, we focused on building a strong foundation for the SwapIt platform. We created the full database structure that holds user accounts, items, messages, and other information that the system needs to operate smoothly. All the tables are connected correctly so the system can track relationships such as which user owns which item, who sent a message, or what is in a wishlist.

We also built the entire user authentication system. This includes registration, login, logout, and session handling. Users can now create an account, sign in securely, and stay logged in while moving between pages. Passwords are protected using secure hashing, and the system checks for invalid or duplicate information before creating an account.

On the frontend, we created all the main pages users will interact with. These include the homepage, login and signup screens, the dashboard, the profile page, the browsing page, and more. The pages work well on both computers and mobile devices. The navigation menu responds to whether a user is logged in or not, changing to show the correct options.

We organized the entire file structure clearly so developers can easily find and update the files they need. We also documented how the system works, including diagrams of the database and explanations of how authentication flows from the frontend to the backend.

2. USER GUIDE

To start using the project locally, you import the provided database file into MySQL, adjust the database settings, and run a local PHP server. After that, you can open the homepage in your

browser.

When creating an account, the user simply fills in their name, email, and password. The system checks if the information is correct and then creates the account. After logging in, the user is taken to the dashboard, where they can access all other features.

Navigation through the site is simple. The mobile menu allows users to move between pages easily. The profile page currently shows basic information and will be expanded later. Logging out is done through the account menu, which also removes the active session.

For safety, users should choose strong passwords and avoid staying logged in on shared devices.

3. GITHUB MILESTONE AND COMMITS

This sprint focused mainly on authentication and setting up the core structure of the platform. The major updates include the database creation, the authentication API, the frontend signup and login files, the main pages, and the overall documentation. Developers can clone the repository, switch to the correct branch, and run the project locally using the built-in PHP server.

4. TESTING STRATEGY

For now, most testing is done manually. We tested the signup, login, navigation, and sessions to ensure that they work correctly on different devices. We also created small tools to test database connections, password hashing, and API calls.

In the future, we plan to include automated testing so we can test more features faster and more accurately. This will include backend tests using PHPUnit and frontend tests using Jest.

6. SPRINT RETROSPECTIVE

In general, the sprint went well. The authentication system is strong, the database is clean and scalable, and the user interface is working well. The documentation is clear, and the file structure is organized.

However, we still need to complete item management and other major features. We also need to add automated tests and improve some parts of the user experience. Next sprint, we will focus on building item creation, improving search and browsing, enabling swaps, adding OAuth login, and strengthening security.

7. FINAL ARCHITECTURE SUMMARY

We designed our final architecture, which our website now uses. The user interacts with HTML, CSS, and JavaScript on the frontend. The backend utilizes PHP to handle requests, including login, item actions, and session checks. All data is stored in a MySQL database that contains all connected tables. The system already includes key security features, such as password hashing and input validation.
We currently support signup, login, logout, and checking if a user is authenticated. More APIs will be introduced as we build item management, swap requests, payment features, and user messages.

8. REMAINING FUNCTIONALITY

There is still important work to be completed to make SwapIt fully functional. We need to finish item management so users can upload, edit, and delete their listings. We also need to enhance browsing so users can search, filter, and view item details.

Additional features like the cart, wishlist, swap requests, messaging, and notifications must be built next. Security improvements such as stronger password rules and CSRF protection are planned. OAuth login using Google and Instagram will also be added.

We will then move into subscription and payment features, followed by improving the frontend design, adding loading animations, improving accessibility, and setting up automated tests. After

that, we will prepare for deployment using hosting with SSL, CI/CD pipelines, monitoring, and backup strategies.

9. CONCLUSION

Sprint 3 successfully built a strong base for the SwapIt platform. We delivered secure authentication, a clean database, responsive pages, and clear documentation. The path to the MVP is well defined, and the next steps focus on building the remaining features.