

Digital Wardrobe

Bachelor's Thesis Project Overview

Digital Wardrobe is a web-based application developed as my bachelor's thesis, aiming to support users in organizing their clothes digitally and making everyday outfit-related decisions. The application allows users to manage clothing items, create outfits, define occasions, and generate travel lists through an interactive and visually structured interface.

The project was designed and implemented entirely from scratch and focuses on user interaction, visual organization, and decision-making. Particular emphasis was placed on developing an intuitive user experience that promotes exploration and minimizes cognitive load while handling personal data. The application is designed with extensibility in mind, and future improvements may include additional functionalities, enhanced personalization, inclusion of artificial intelligence, and further interaction features.

The application was developed to run on a local server and is therefore presented through documentation and screenshots.



Image 1: The view of a logged-in user from the home page of "Digital Wardrobe".

Clothes (15)

[Search Filters](#)

[+ Upload](#)

Neon Green Cap



Nike KD 10 Shoes



Gray Hoodie



Category: Shoes

Color: Black, White

Size: 45,5

Season: All

Brand: Nike

[Edit](#)

[Delete](#)

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[Delete](#)

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Image 2: How uploaded clothes appear on the profile. Clicking on the image of the cloth displays more details.

Outfits (5)

[Search Filters](#)

[+ Create Outfit](#)

Neon Man

Activity\ies: Walking, University, Running

Clothes:

Neon Green Cap

Gray T-Shirt

Neon Green Shorts

Nike Jordan 1 Khaki

[Edit](#)

[Delete](#)

Cold Winter

Activity\ies: Walking, University, Coffee

Clothes:

Red Beanie with tag



White Bomber Jacket

[Edit](#)

[Delete](#)

Gray All Over

Activity\ies: University, Coffee, Party

Clothes:

Gray Hoodie

Gray Jean Pants

Reflective Shoes

[Edit](#)

[Delete](#)

Image 3: How created outfits are displayed. In the middle outfit, after clicking on the title "Red Beannie with tag" the image of the specific included cloth appears.

Design & Interaction

The interaction design of *Digital Wardrobe* is centered around supporting everyday decision-making through clarity, structure, and visual organization. The system is designed to reduce cognitive load by presenting information in a consistent and easily scannable format, allowing users to focus on exploration rather than management.

Clothing items are displayed using a card-based layout, which enables visual comparison and quick recognition. This approach supports browsing behavior and encourages users to interact with their wardrobe in a non-linear way, similar to navigating a collection rather than a static list. Filtering and categorization mechanisms further enhance this interaction, allowing users to narrow down available items based on attributes such as category, color, or season. These filters provide a balance between freedom and control, enabling both intentional searches and spontaneous discovery.

Beyond individual items, the application introduces system-based interactions through features such as outfit creation, occasions, and travel lists. These features allow users to combine discrete elements into meaningful sets, emphasizing composition and planning. By structuring interactions through grouping and recombination, the system converts ordinary decisions into an engaging experience that encourages experimentation.

Overall, the design of *Digital Wardrobe* prioritizes intuitive interaction and user agency, encouraging users to actively shape and reorganize their digital wardrobe. The project reflects a design approach that values interaction as a dynamic process, where structure supports creativity and exploration rather than restricting it.

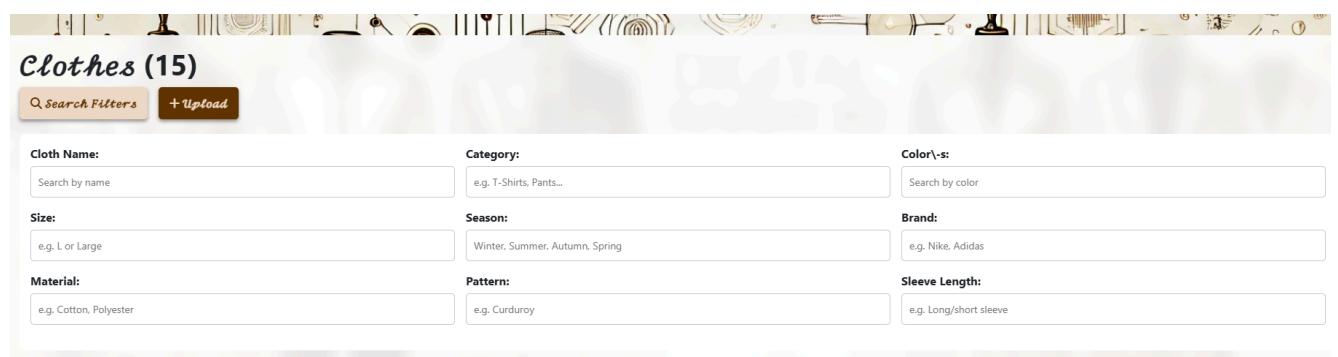


Image 4: Dropdown menu for clothing search filters by clicking on the "Search Filters" button.

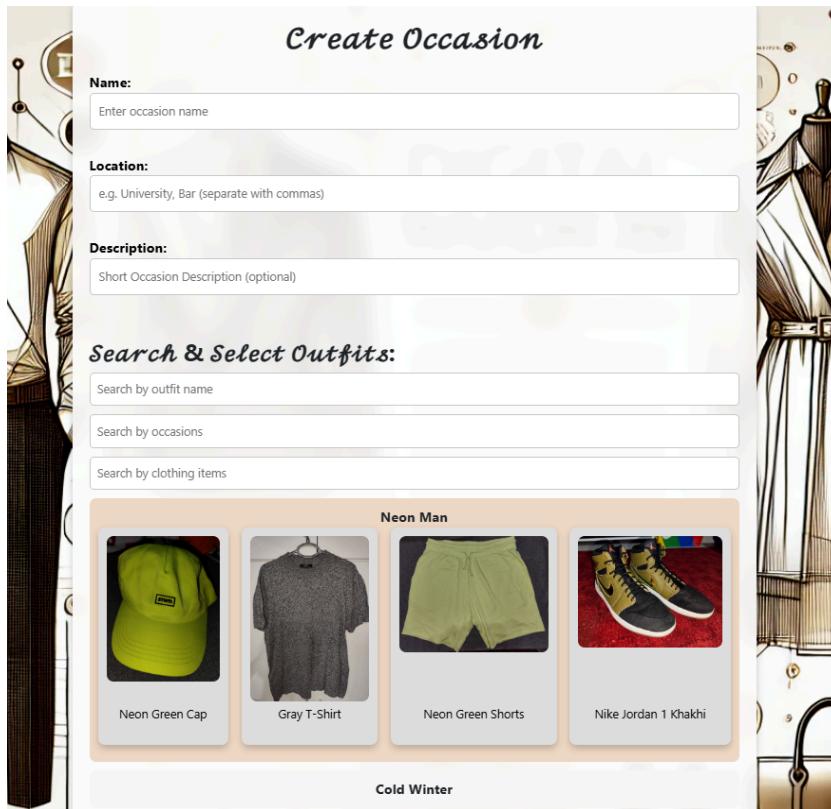


Image 5: Occasion creation form with fill-in fields, outfit search filters, and a marked selected outfit.

Image 6: How travel lists are displayed. In the middle one, clicking on the clothing item named "Nike Jordan 1 Khakhi" displays its image.

Reflection

Working on *Digital Wardrobe* as my bachelor's thesis marked my first experience in designing and developing a complete interactive system from concept to implementation. The project challenged me to think beyond functionality and consider how structural and interaction decisions directly influence user experience.

Technologies such as MongoDB, Node.js, Express.js, and React.js were used for the entire development process. While these tools formed the technical backbone of the application, the project highlighted the importance of aligning technical choices with interaction design goals. The design of the system architecture required careful planning to ensure flexibility, scalability, and potential future enhancements, reinforcing the relationship between the backend framework and user-facing interactions.

Developing the application from scratch allowed me to better understand how small design decisions, such as layout consistency, filtering logic, and content grouping, can significantly impact usability. The iterative nature of the process encouraged continuous reflection, experimentation, and enhancement, strengthening my ability to evaluate design decisions with a critical eye.

Overall, *Digital Wardrobe* played a key role in shaping my perspective on interactive systems, helping me transition from a purely technical perspective to a more comprehensive, design-focused approach. This experience motivated my growing interest in game and interaction design, where systems, rules, and user engagement intersect to create meaningful experiences.