

# RESEARCH DOCUMENT

# DECOMPOSITION

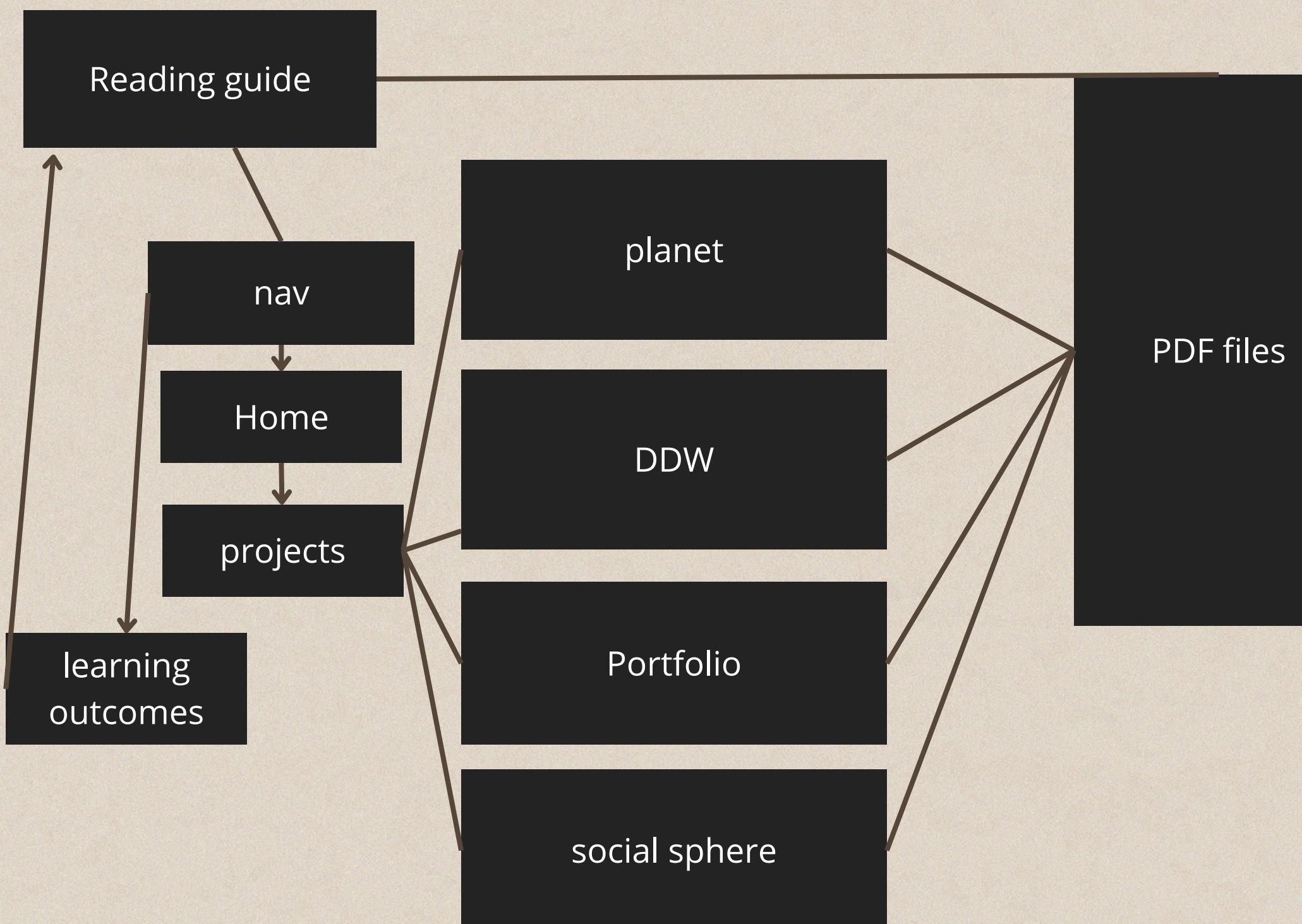
2023

LIBRARY

PORTFOLIO

## WHY?

A “decomp” exercise at the beginning of a website project helps the team to understand the scope of work from the very beginning, allowing for a quicker, cleaner UI build out. This proactive analysis sets the stage for clear objectives, minimizing potential roadblocks, and fostering a cohesive team effort toward a successful website development process.



## **Frontend Development:**

- **HTML/CSS:** I'd start by designing the website's layout and visual elements using HTML for structure and CSS for styling. This includes creating the initial structure for the homepage, navigation menus, and placeholders for content.
- **Intro Animation:** I'd implement the intro animation using HTML, CSS, and possibly JavaScript to create an engaging animation that plays when a user first visits my site.
- **Horizontal Scrolling:** To achieve horizontal scrolling for specific sections or content, I'd use CSS properties like overflow-x and set the container's width accordingly. JavaScript might also be necessary for handling user interactions.
- **Frontend JavaScript:** I'd use JavaScript to enhance user interactions, such as smooth scrolling, navigation menus, and loading dynamic content. I'd ensure compatibility with different browsers.
- **Responsive Design:** I'd make my website responsive to ensure it looks and works well on various screen sizes and devices. This involves using media queries in CSS to adjust the layout for different screen widths.

## **Backend Development:**

- **Server-Side Language:** I'd choose a backend programming language like Python, Node.js, Ruby, or PHP to handle server-side logic.
- **Web Server:** I'd set up a web server (e.g., Apache, Nginx) to host my website and configure it to route requests to my backend application.
- **Database:** If I plan to store and manage user data or chat history, I'd set up a database (e.g., MySQL, PostgreSQL, MongoDB) to store this information securely.

## **Content Management:**

- **JSON for Content:** I'd create a JSON file or database table to store content such as project descriptions, portfolio items, and other data I want to display on my website. I'd develop a mechanism to read and update this data dynamically based on user requests.
- **API Endpoints:** I'd create API endpoints on the backend to serve JSON data to the frontend. I'd use AJAX or the fetch API in JavaScript to make asynchronous requests to these endpoints and update the content on my website without needing a full page reload.

## **Deployment and Hosting:**

- **Domain and Hosting:** I'd find a domain name for my website and choose a hosting provider to deploy my website and backend. I'd configure DNS settings to point to my hosting server.
- **SSL Certificate:** I'd implement an SSL certificate to ensure secure communication between the user's browser and my server.

## **Testing and Optimization:**

- **Testing:** I'd perform thorough testing of my website across different browsers and devices to ensure compatibility and responsiveness. I'd test the AI chat functionality extensively.
- **Performance Optimization:** I'd optimize my website's performance by minifying CSS/JS files, optimizing images, and implementing caching mechanisms to reduce load times.