macOS Interface

Project Overview

This project is a web-based macOS interface simulation built to recreate the experience of a real desktop operating system inside the browser.
Instead of designing a traditional website layout, this project focuses on system-level UI design, interaction modelling, and application simulation.

It presents a desktop environment with windows, a dock, and multiple applications that behave like a real operating system, creating an immersive and interactive user experience.

Why This Project Was Built

Most frontend projects focus on building pages, forms, and static layouts.
This project was built to explore **system-level UI engineering** designing interactions, behaviours, and structures similar to real software environments.

The goal was to move beyond traditional website patterns and build something that demonstrates:

- UI architecture
- interaction modelling
- component engineering
- real-time user interaction

This project reflects a focus on **building systems, not pages**.

Use Case

This project is:

- A UI architecture showcase
- A system simulation concept
- An interactive product prototype
- A design and interaction experiment

It shows how web technologies can simulate complex software environments such as desktop operating systems.

Core Features

- macOS-style dock interface
- Draggable and resizable windows
- Window focus and layering behaviour

- Reusable window component architecture
- Live data integration
- Interactive applications
- Real audio playback
- Native PDF viewing
- Modular app system
- System-style UI interactions

Applications Included

- **GitHub Window** – Displays live trending repositories using real-time public API data
- **Notes Window** – Simulates a real user notes application
- **Terminal Window** – Interactive fake shell with real commands
- **Music Window** – Spotify-style mini player with real audio playback
- **PDF Window** – Real document viewer
- **Additional UI Apps** – Calendar, Mail, Finder (UI simulation)

Technology Stack

Frontend: React, Tailwind CSS
Window Drag and Drop: react-rnd
Data Fetching: Axios
UI Architecture: Component-based system design
Design Approach: OS-style simulation architecture

How This Project Is Different from Traditional Frontend Websites

Traditional Websites:

- Page-based navigation
- Static layouts
- Form-driven interfaces
- Section-based content
- Linear user flow
- Website-first design

This Project:

- System-based interface
- Window-driven interactions
- Application-based structure
- Desktop environment simulation
- Multi-window interaction
- OS-style UX patterns
- Non-linear navigation
- Software-like behaviour.

Conclusion

The macOS Interface Simulation Project is a modern frontend engineering project focused on building an interactive system rather than a static website.
It showcases how web technologies can be used to simulate real software environments, demonstrating strong UI architecture, system design, and interaction engineering skills.