learnide.

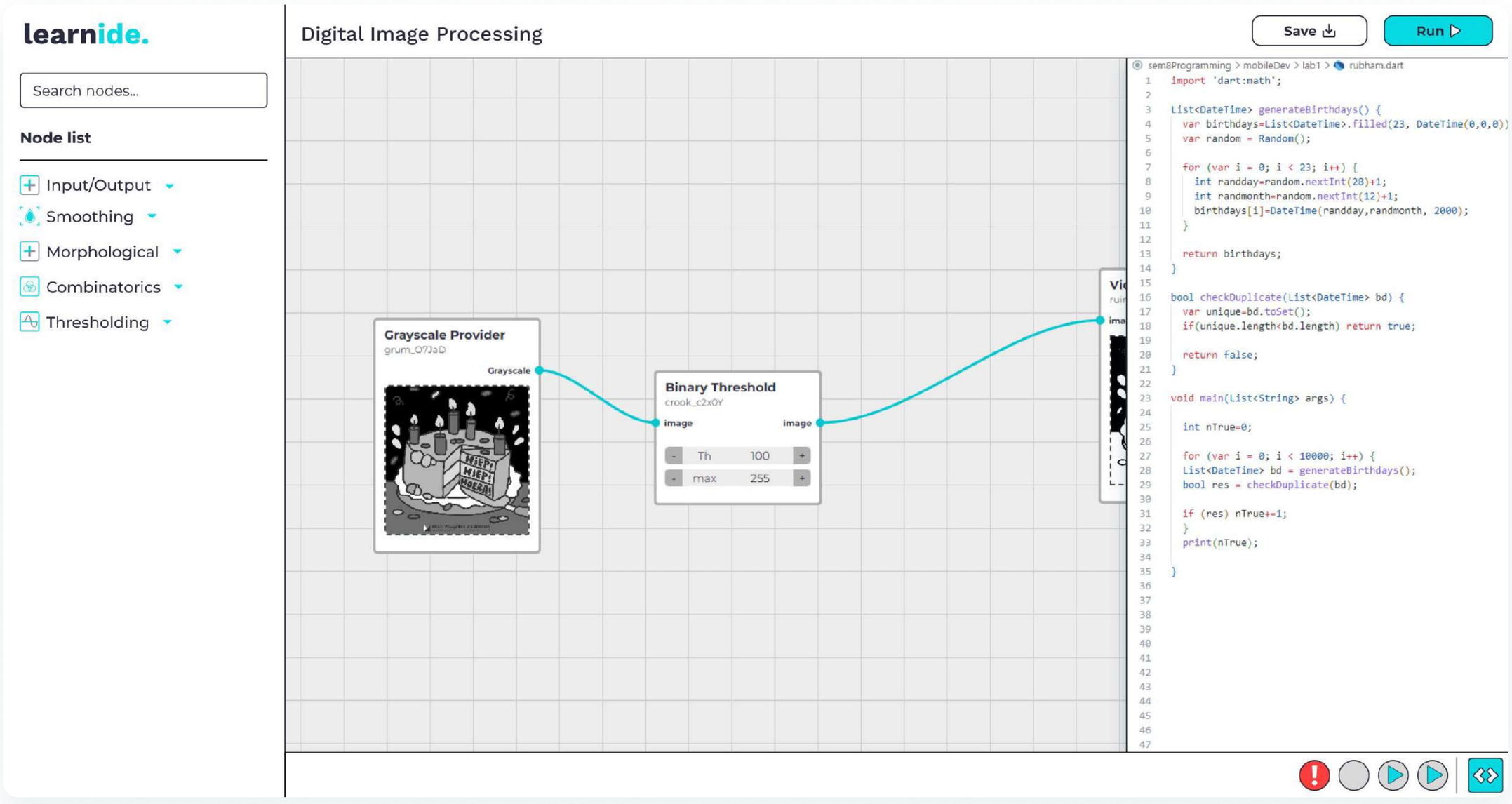
Branding &

UX Case Study



Meet The App

Learnide is an e-learning app that simplifies digital image processing with flow-based programming, visualizing filters, connections, and code generation for easier learning and real-world application.



Problem Statement

Learning digital image processing is difficult due to complex algorithms and limited interactive methods. An e-learning app using flow-based programming, filters, and code generation can simplify and reinforce learning.

The UX Design Process

Problem Identification

To design a web app with an interactive user-friendly interface that makes learning image processing easier.

Research

Learned how students learn advanced coding subjects to determine their actual needs versus traditional practices.

- Online Research
- Campus Interviews
- Competitor Analysis

Ideate

Team members discussions and concept development for the optimal approach for designing a web app based on identified problems and conducted research.

Wireframing

Turned sketches into wireframes in Figma.

Branding

Developed a branding guide and design systems to facilitate the design creation and iteration process.

Design/Prototype

Created high-fidelity mockups and prototypes, undergoing multiple iterations to ensure the product is user-friendly

Handoff

After finalizing the design, it was handed to the developer. Additional steps included a case study and presentations.

User needs

- User-friendly interface for complex digital image processing algorithms
- Interactive visualizations to understand information flow and technique connections
- Access to filters, program design, and code generation
- Clear explanations and guidance for effective app use
- Engaging content to keep learners motivated

Challenges

Below are some usability issues we had to address during the design and development process

New Users

- A 30-second tutorial video to help users quickly understand how to use the app and get started easily.
- A pre-made filter in the app, with generated code to show the user

Returning Users

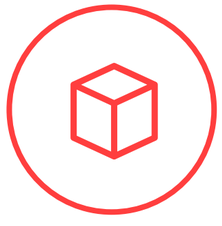
- Access to saved programs and designs
- New program design (No pre-made program)

User Pain Points



Lack of immediate feedback

Traditional methods of learning to code, like textbooks or lectures, lack immediate feedback on mistakes made and how to fix them



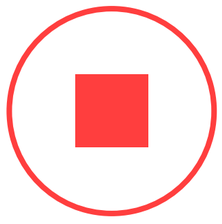
Abstract concepts

Many coding concepts can be abstract and difficult to understand without practical examples



Slow progress

It can be frustrating to learn to code when progress is slow, especially for those who are new to programming



Limited resources

Traditional methods of learning to code may not provide enough resources or support for students to fully grasp the material

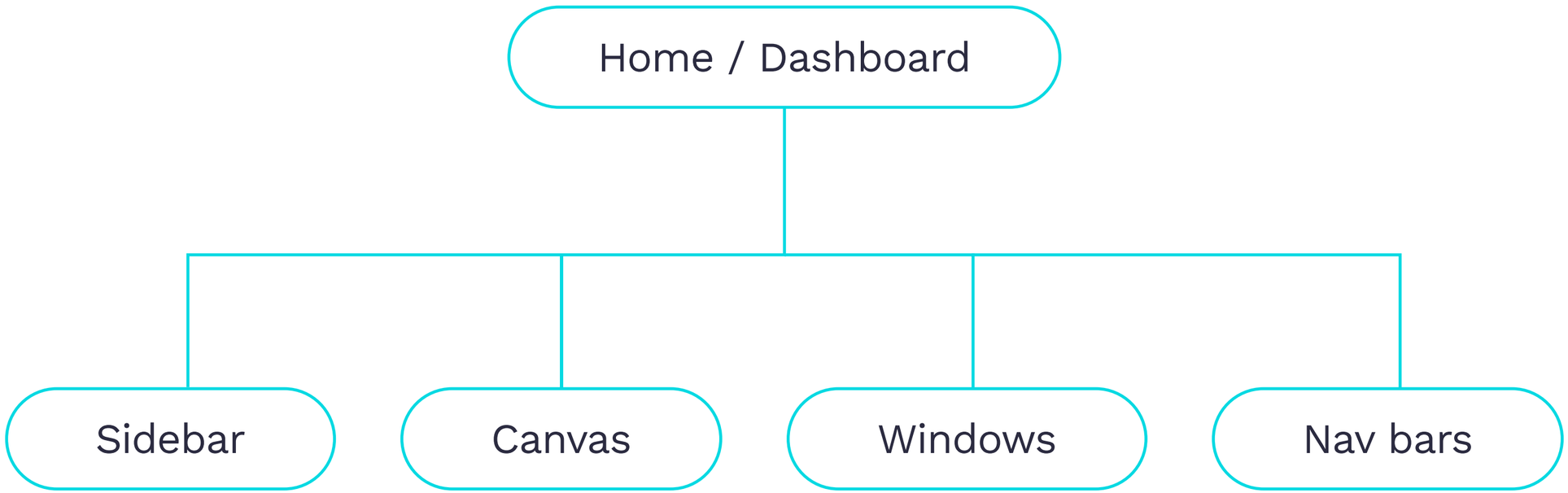


Boredom

Some students may find traditional methods of learning to code to be boring, leading to a lack of motivation and engagement

Information Architecture

LEARNIDE is Single-Page web application with the following structure



- Search box
- Node list
- Settings button
  - Theme
  - Login

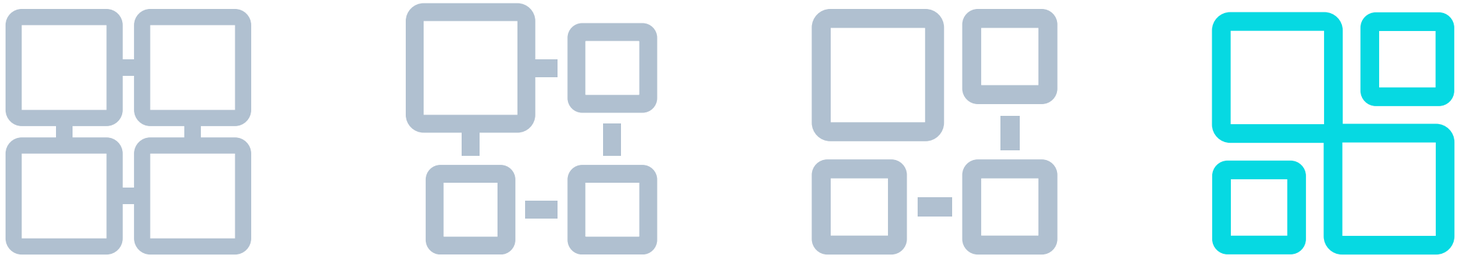
- Drag’n’drop area
- Visual program design
  - Nodes
  - Connections

- Code Window
- Chat bot

- Header
  - Save program
  - Run Program
- Footer
  - Window buttons
  - Error buttons

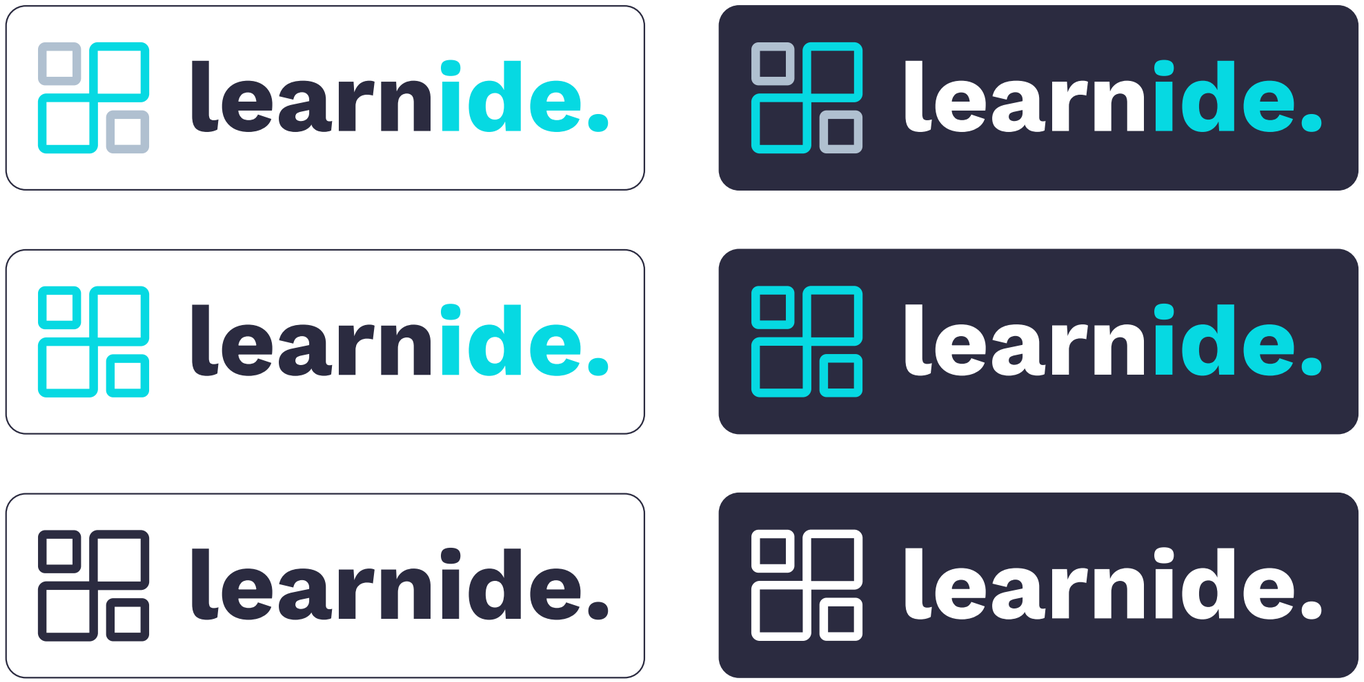
Branding

Designed logo, icons, styling guide etc to facilitate the design creation and iteration process.

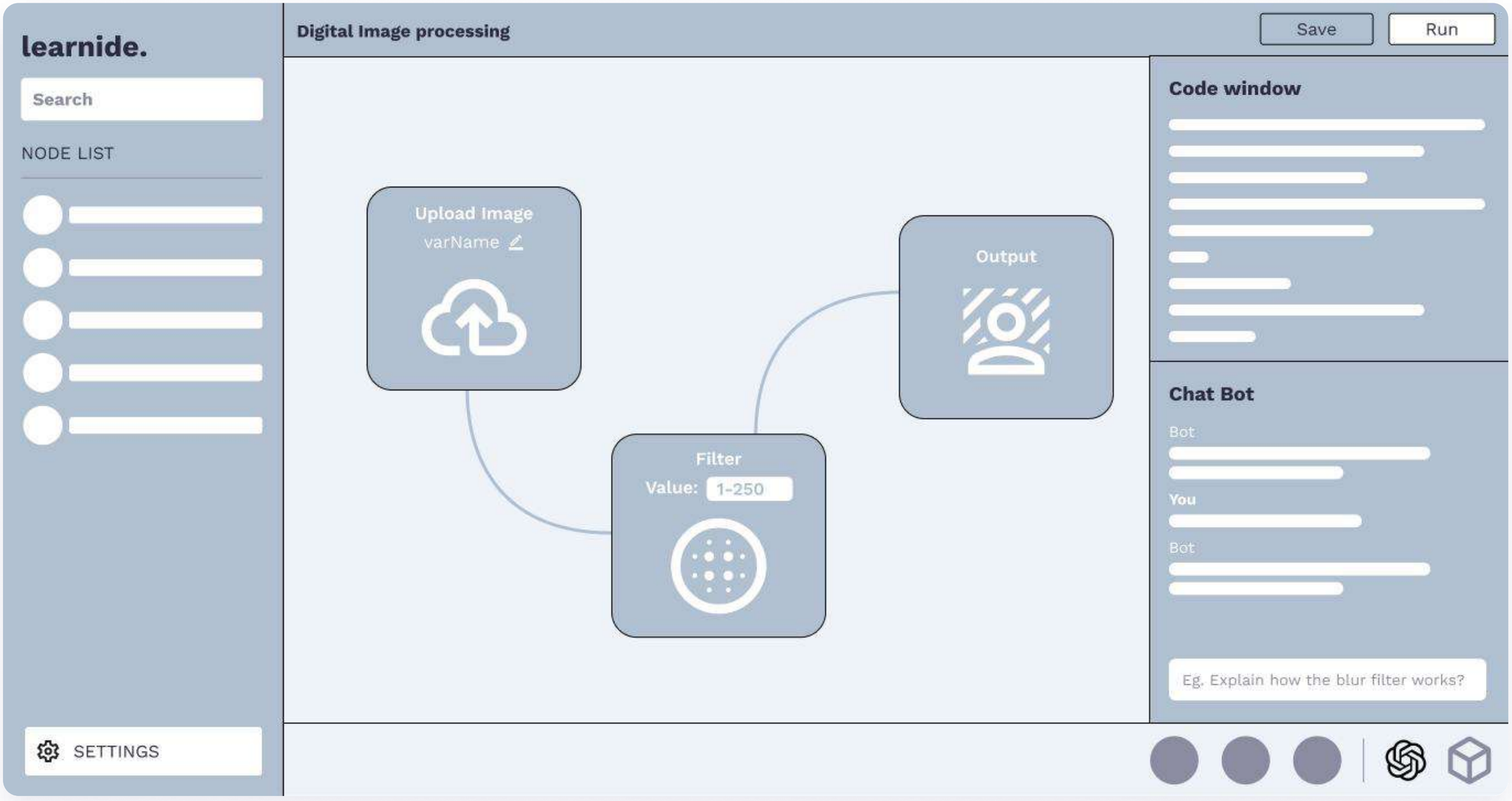


Behind the design:
Square boxes (nodes) + connection lines that represent the basic functionality of the Learnide Web App

Logo Use Cases



Wireframing

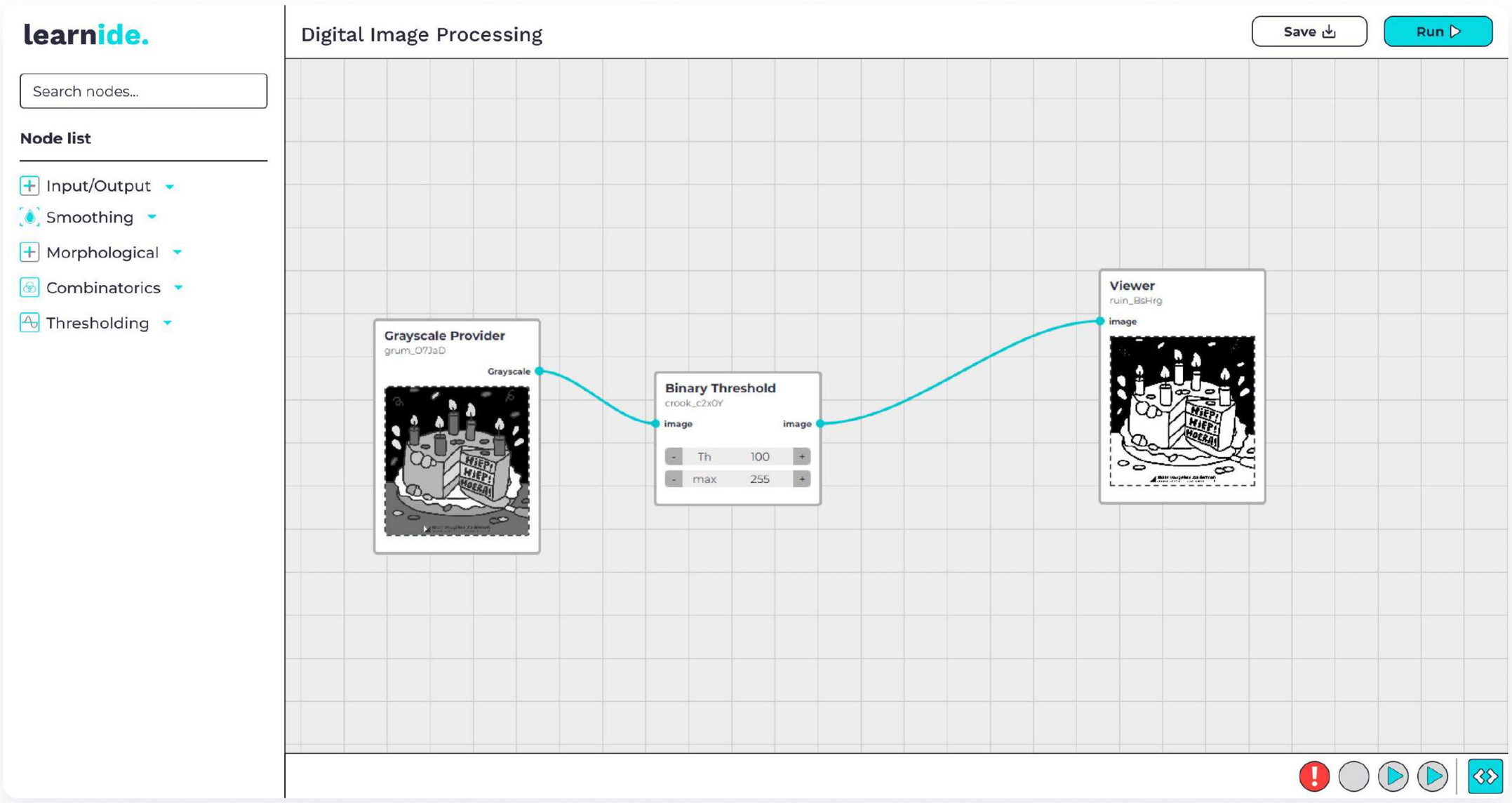


Typography

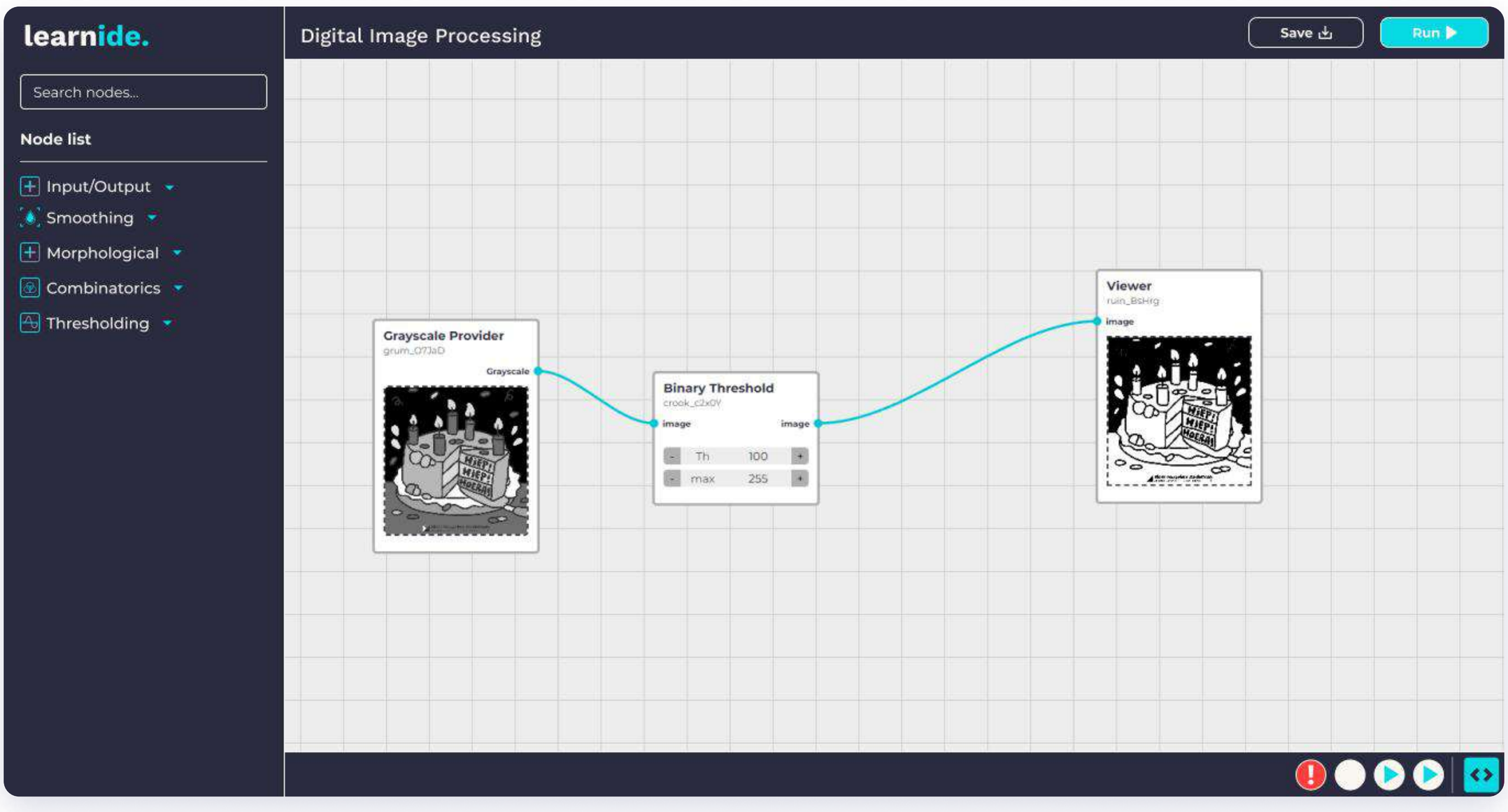
Title/Header 1	Family: Work Sans Weight: Bold Size: 64px Letter Spacing: -2%	**Title/Header 1**
Header 2	Family: Work Sans Weight: Bold Size: 40px Letter Spacing: -2%	**Header 2**
Header 3	Family: Work Sans Weight: Bold Size: 24px Letter Spacing: -2%	**Header 3**
Subtitle/Body Large	Family: Work Sans Weight: Medium Size: 24px	Subtitle
Body	Family: Work Sans Weight: Medium Size: 16px Line Height: 140%	Body
Bold	Font Weight: Bold	**Body**
Small	Family: Work Sans Weight: Medium Size: 14px	Smaller text here
Pre Title	Family: Work Sans Weight: Bold Size: 10px Letter Spacing: 3%	PRE TITLE
Button Text	Family: Work Sans Weight: Bold Size: 10px Letter Spacing: 3%	**BUTTON TEXT**
Link	Family: Work Sans Weight: Bold Size: 16px Decoration: Underline	**Link Text**

High fidelity Mockups

Light Theme



Dark theme



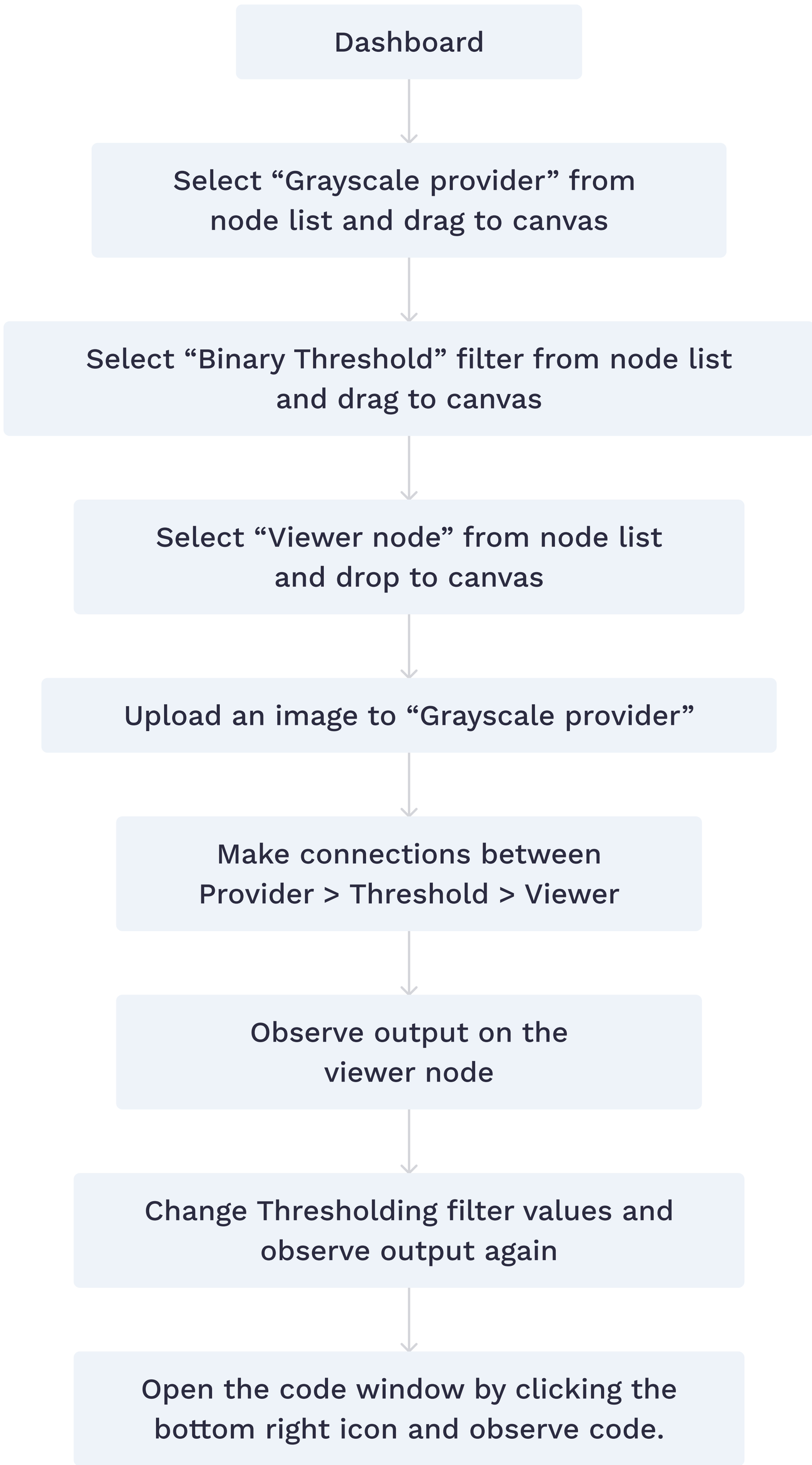
Prototype

Learnide’s interactive high fidelity prototype, made in Figma.

Task flows

Scenario

A user wants to make a simple thresholding program, interact by changing filter values, observe the output and generated code.



Current Phase

The following Eisen Hover matrix represents the outstanding tasks and remaining progress in our project.

	Urgent	Not Urgent
Important	• 30 Second Intro video for new users • Segmentation program feature	• Chatgpt integration • Sidebar update • Icons design
Not Important		• Light and Dark theme option • Chatbot personalization with respect to “current program”

Thank you!