



# THE PRIMER

GSU\_WebDev\_Spring2025

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# WHO MADE THIS GARBAGE?

- Joshua P.
- Aka the person talking right now

# PINA, THE CREATOR

- Hi, my name is Josh. I'm a 'retired' Army Medic from South Florida. I still live in Columbus, Georgia by Fort Benning so I commute here for lectures and exams.
- I am a Senior Data Science major and I am currently going back and forth on if I want to get into Data Ethics law.

# ALRIGHT, COOL...SO WHY ARE WE HERE?

**“The Primer”** is a centralized academic hub designed to organize, display, and interact with my study materials as a Data Science major.

## **Goal:**

To create a digital workspace that allows me to upload, track, and access notes, slides, study guides, and course content across multiple subjects — with future expansion for timers, tags, and review tools.

- This will double as a live GitHub portfolio and personal knowledge vault, offering structured navigation by course and topic, built from the ground up using full-stack web technologies.

# WHAT'S BEHIND THE IRON CURTAIN?

**Unfortunately, for the doubters, the Primer is built to last.**

The April/May 2025 edition (theoretically) includes:

- 🏠 Course-by-course navigation
- 📝 Notes system (submit + view)
- 📁 File upload feature by subject
- 📁 File browser per course

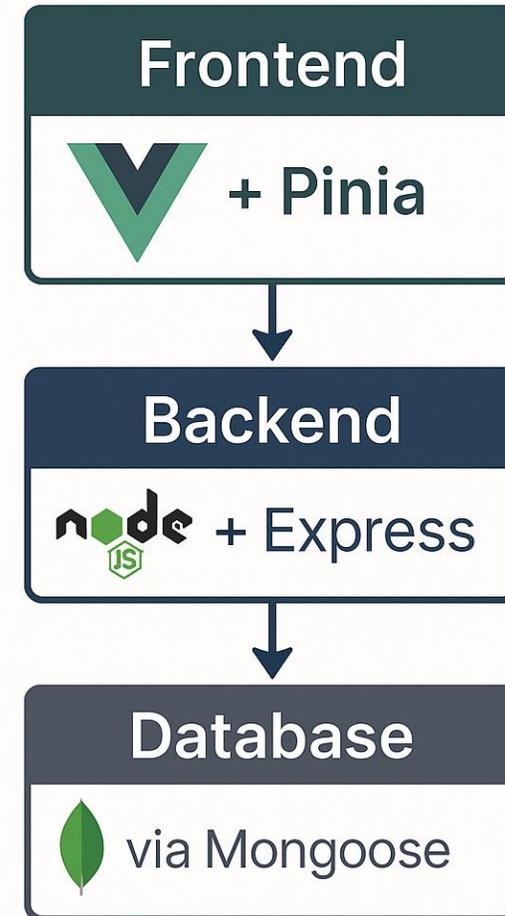
The backend is fully connected to MongoDB Atlas for persistent data

Built using **Vue.js**, **Express**, and **MongoDB**

- Hosted locally for dev, but the first form has been pushed to Github.

# WHAT TOOLS DID YOU USE?

- Frontend (Vue 3 + Vite + Pinia)
  - Routing through Vue
    - Many reusable components such as NoteForm, NoteList, CourseUploader...etc.
- Backend (Node.js + Express)
  - Nodemon is used to reload the page while I am working on it.
  - API server runs through localhost:\*\*\*\* and mongoose is used to maintain the connection to MongoDB
- Database (MongoDB)
  - This will store my notes collection and future metadata



# WHAT TOOLS DID YOU USE?

- More notes on the way this was built:
- This project is broken down into 2 primary folders
  - The-primer handles all of my frontend business (vue)
    - I am using Vite as a dev server instead of “live server”
  - Backend handles my nodes.

Layer	Tool
Frontend	Vue.js, Pinia, Naive
Backend	Node.js w/ Express.js
Database	MongoDB
Other	Github , Vercel

# WHAT TOOLS DID YOU REALLY USE?

Promo 2 months free for students

## ChatGPT Plus is now free for college students through May

Offer valid for students in the US and Canada

## Gemini Advanced is free for college students through finals 2026

Students get free access to our best AI model with Gemini Advanced. Prep for your exams, perfect your writing, and tackle your homework with the best of Google AI: Gemini Advanced, NotebookLM Plus, Whisk. Plus 2TB of free storage. Available in the US only. Sign up by June 30, 2025.

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# WHAT TOOLS DO YOU THINK ARE COOL AND WANT TO MENTION?

- GOOGLE NOTEBOOK LM!!!!
  - I can not emphasize how powerful this tool has been.
  - As an example...I will stop talking for a second.



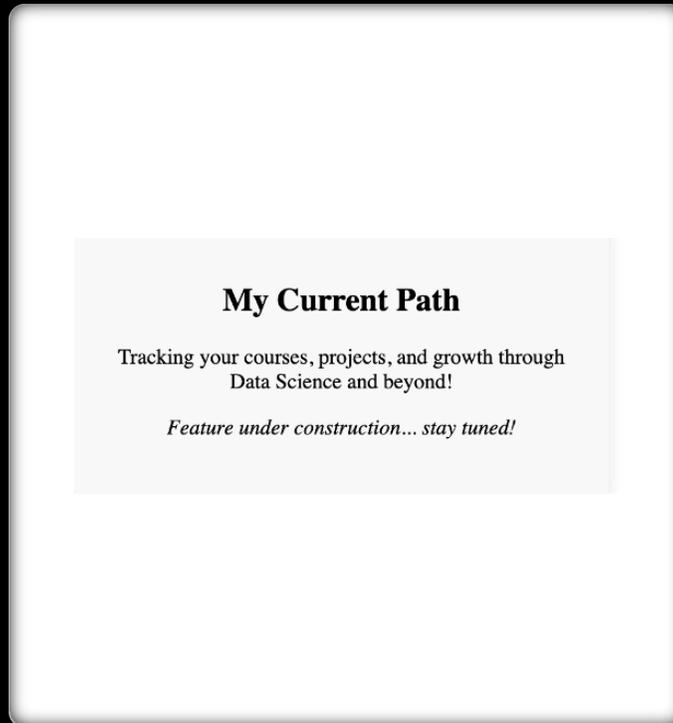
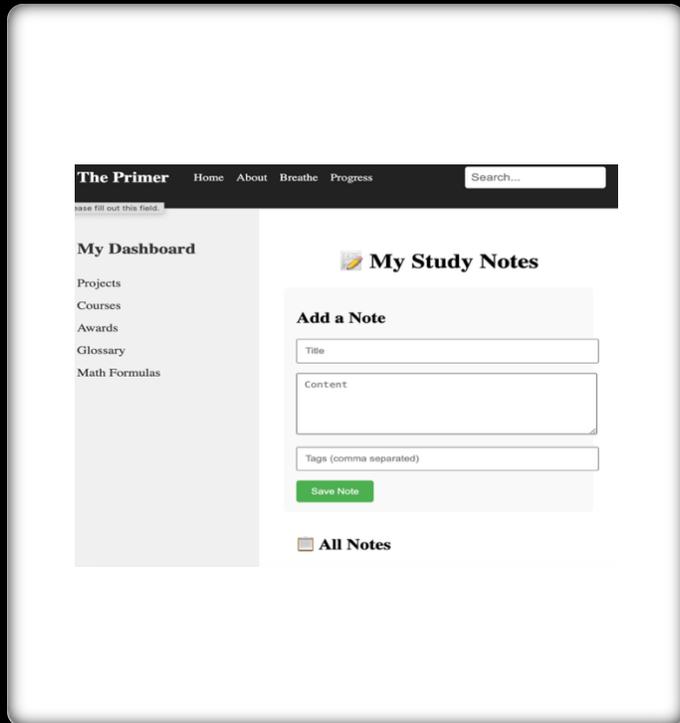
The screenshot shows the NotebookLM Plus interface. At the top, it says "Welcome to NotebookLM Plus". Below this is a "Create new" button. The main area displays a grid of eight study notes, each with a title, an icon, and a date/source count. The notes are: "The Primer: Academic..." (May 1, 2025 - 3 sources), "Families of Discrete Probability..." (May 1, 2025 - 17 sources), "Probability - finals prep and Statistic..." (May 1, 2025 - 4 sources), "Graphical Statistical Metho..." (Apr 30, 2025 - 34 sources), "Statistics Review and Hypothesis..." (Apr 24, 2025 - 5 sources), "DIP - Final Prep" (Apr 30, 2025 - 24 sources), "DIP-Final Exam Topics Only" (Apr 30, 2025 - 9 sources), and "DIP - All Slides" (Apr 27, 2025 - 18 sources). The interface includes a "Settings" button and a "Most recent" dropdown menu.

The screenshot shows the "The Primer: Academic Dashboard and Study Tool" interface. It features a "Sources" section with a list of documents: "Final Project Doc.pdf", "Pasted Text", and "The\_Primer\_Project\_Summary.pdf". There is a "Chat" section on the right with a graduation cap icon and the title "The Primer: Academic Dashboard and Study Tool". Below the title, it says "3 sources" and provides a brief description of the document. At the bottom, there are buttons for "Save to note", "Add note", "Audio Overview", and "Mind".

# WHAT'S THE END GOAL?

There are a lot of things that I can do to improve the website:

- Add OAuth2 or Firebase Authentication
- Implement a personalized pomodoro timer to assist with studying and taking breaks
- An analytics dashboard to track studying and how much time is spent studying
- Ways to optimize my about me section and to show that I did more than run a few ChatGPT prompts to create this.
- Maybe add a help/FAQ/how-to page to explain how to use the site and how to create your own study materials that are of the same standard.
- I want to add some kind of live sourced but not obtrusive news ticker, maybe only to a specific "break page", which will also have some sports betting analytics on there.



# SO, DOES IT WORK?

Here's what it should kind of look like, lets see if it works today!

# ASSISTANT TO THE REGIONAL MANAGER SLIDE (ITS ALMOST DONE)

**The Primer** is a real-world example of a full-stack app built for personal academic use and development (in theory). It has scalable architecture for future collaboration or deployment.

- ✓ Clean UI/UX
- ✓ File storage and content management
- ✓ Data persistence with MongoDB
- ✓ Vue-based component-driven design
- ✓ API-based communication
- ✓ Real-time development/debugging practice

FIN

- The purpose of the primer is to extend my prime, as in the time that I am spent focused and locked into the task at hand. The goal is to combine organization and motivation into a page that will live forever and help not only myself, but fellow students for as long as the information is relevant.
- Thank you for sharing the last few months with me, I am open to any questions.

**Don't Forget to Breathe**

*"Don't give up. Don't ever give up."  
– Jim Valvano*