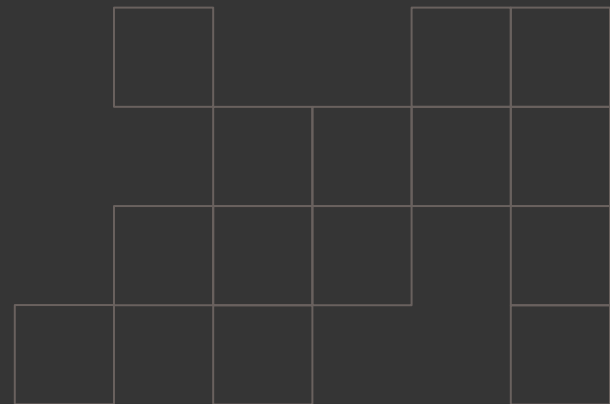


CS 152
Final Project

Spartan Score

Naya Singhanian
Anushka Dhole



The Issue

Tedious manual entry to calculate current GPA

- Time consuming process to calculate grades
- Hard to figure out GPA calculators
- Valuable study time lost

No LMS integration

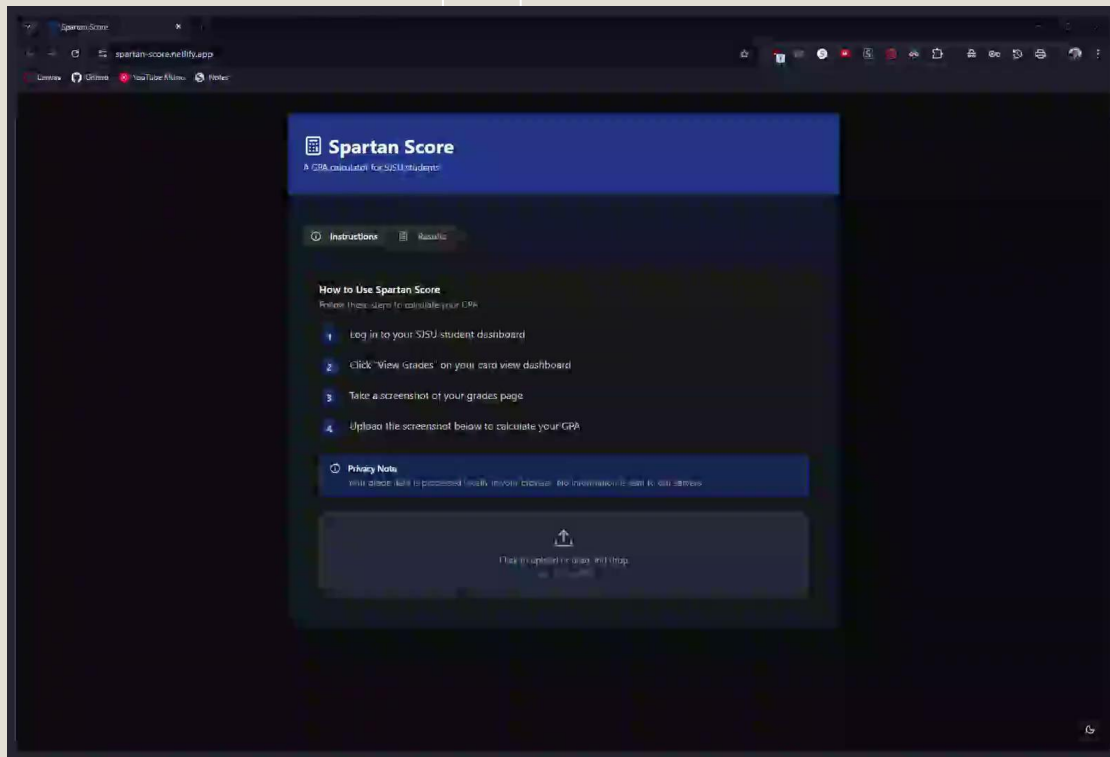
- Prone to copying errors when entering into calculators
- High friction in students being able to keep track of GPA

The Solution

A simple GPA calculator without the hassle

- Calculate your current semester GPA just from a screenshot of your grades
- No manual data copying means no errors
- The process is extremely quick
- A clean user interface to ensure a great user experience

Demo



Technical Design

Our tech stack

1

Next.js

- Industry standard React framework with SSR
- Handles build tooling (bundling, routing, etc)

2

Tesseract

- NodeJS Optical Character Recognition (OCR) library
- Converts uploaded screenshots to object data

3

Shadcn UI

- Customizable UI library built on Tailwind CSS
- Reusable components for React integration

Challenges

Accurate Unit Weighting

- SJSU courses have varying unit weights
- Unit weighting information not available in Canvas
- SJSU course catalog has unit weighting

Pivoting From Initial Idea

- Originally hoped for ability to directly utilize Canvas API
- Inability to access API key
- Pivoted to OCR idea

Tesseract Output

- OCR output is only text
- Needed to go from string to object data and remove unnecessary data
- Used various string manipulation methods to solve this

What's Next

1 More accurate GPA Calculations

- Pull course data from SJSU course catalog
- Ensure correct unit weighting of courses

2 Tracking Over Time

- Allow registered users to save generated GPA calculations
- Help students visualize progress over time

3 Browser Extension

- Integrate the functionality directly into the browser
- Can automatically pull grades from UI, removing any manual aspect

Questions



Thank you