INFO1111: Computing 1A Professionalism

2025 Semester 1

Self-Learning Report

Task 1: Foundation: Learning Vercel

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Submission number: 1

Vercel website link (live site): https://strata-management-inky.vercel.app/

Github link: https://github.com/spaceisgreat19/strata-management.git (public GITHUB)

1. Background

1.1. Motivations for self-learning:

a) personal enjoyment
b) learn new things
c) increasing confidence
d) improve coding skills

1.2. Effective self-learning and its challenges:

1.2.1. What is the most effective way you currently self-learn?

I self-learn best through hands-on experience. Practicing while learning the theory allows me to grasp concepts much faster and retain more information. It also helps me identify my weaknesses in real time. During the project, I experimented with Git and Vercel while simultaneously learning about them through tutorials and other online resources.

1.2.2. What is the most difficult challenge for you when you are self-learning?

The most difficult challenge is bridging the knowledge gap. Vercel and Git require a certain level of technical understanding, and I initially struggled to grasp their concepts. I had to spend a lot of time experimenting with them before I could develop a firm enough understanding to apply them effectively in my project.

2. Journal of self-learning activities and reflections.

19/03/25
I started by downloading Next.js. The installation was straightforward using the terminal. Creating a project was also simple after looking up instructions online.

21/03/25
I signed into Git with my personal email and created a new repository. Connecting the project to Git was easy since it had been covered in class. Uploading my project to Vercel was also simple, thanks to Vercel's clear instructions.

23/03/25
I added environment variables after researching online. I included my GitHub clone link. Uploading static assets was straightforward with AI assistance, but I faced issues with Vercel not immediately displaying my static images. I had to wait for Vercel to update with my latest GitHub changes.

25/03/25
I researched Vercel.json, and webpages I decided to create new webpages first. Initially, it was challenging, but I managed by researching online. Since I struggled with coding the webpages, I used AI to assist me.

26/03/25
After completing the webpages, I created a Vercel.json file to connect them online. It was initially difficult, but once I understood the process, it became easier. I also researched edge functions and created three basic ones with the help of AI.

28/03/25
I struggled with troubleshooting my code due to recurring errors. I had to research online and use AI for debugging. Once everything was resolved, I did some basic research on CSS and improved the UI by adding a header and a more structured layout. I also implemented GET and POST requests on two webpages. Additionally, I wanted to try a redirect, so I added it to a thank-you page. Implementing these features was tricky and required some technical knowledge.

30/03/25
I compiled my report and finalized my webpage. I took screenshots of my code and webpage, then documented my results.

3. Self-learning Plan

3.1. Goals:

Your goals for this report are to:

1. Demonstrate your knowledge (understanding) of Vercel by carrying out the steps 1-9 in the instructions.
2. Demonstrate your skill in applying that knowledge to creating a website project using Vercel by carrying out the steps 1-9 in the instructions.
3. Evaluate your self-learning processes.

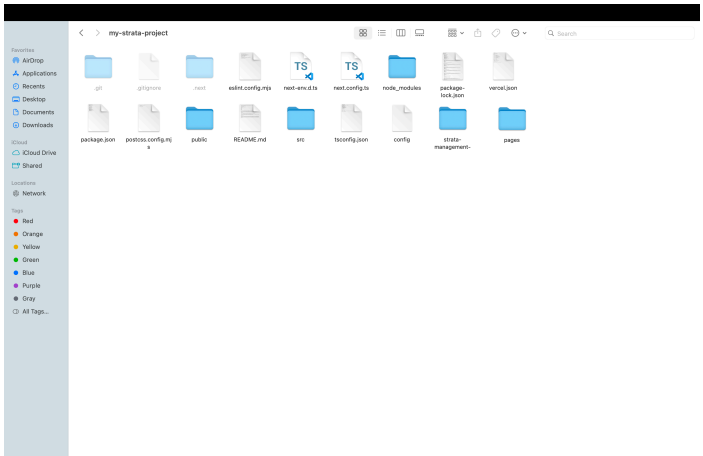
3.2. Schedule

3.2.1.

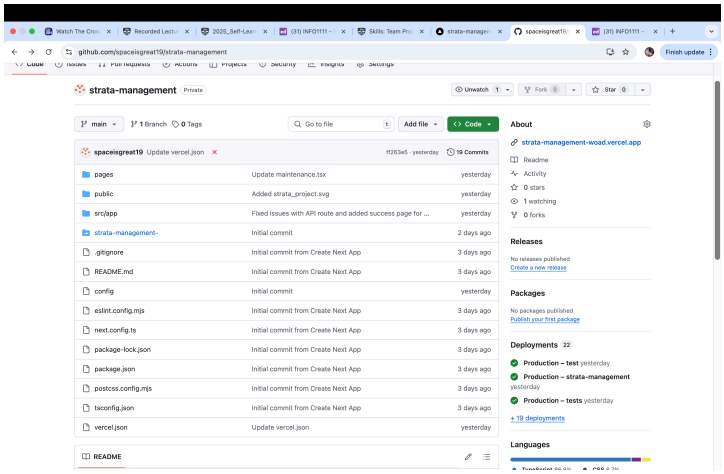
STEPS NO	DESCRIPTION	DATE
1	Create a new project and download Next.js	19/03/25
2	Connect my project to Git and Vercel	21/03/25
3	Set up environment variables and upload static assets	23/03/25
4	Create new webpages	25/03/25
5	Create Vercel.json file and create edge functions	26/03/25
6	Add basic UI and post and get	28/03/25
7	Complete report	30/03/25

4. Results: evidence of the steps you have attempted from the instructions

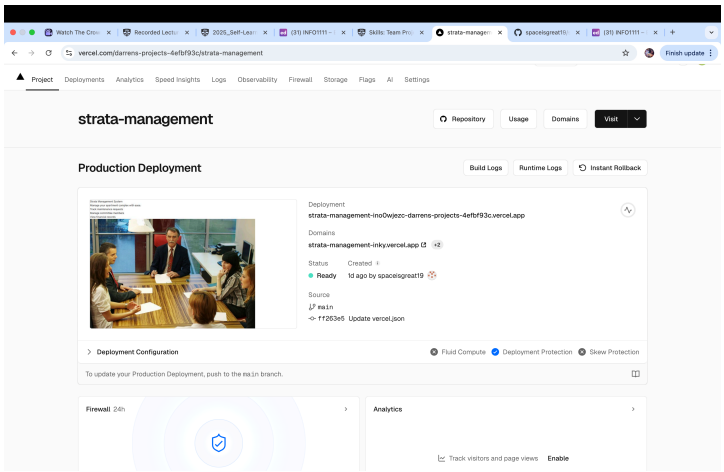
1) I installed Next.js using the terminal command “brew install node”. Then, I created my project, my-strata-project, using the terminal command “npx create-next-app@latest”.



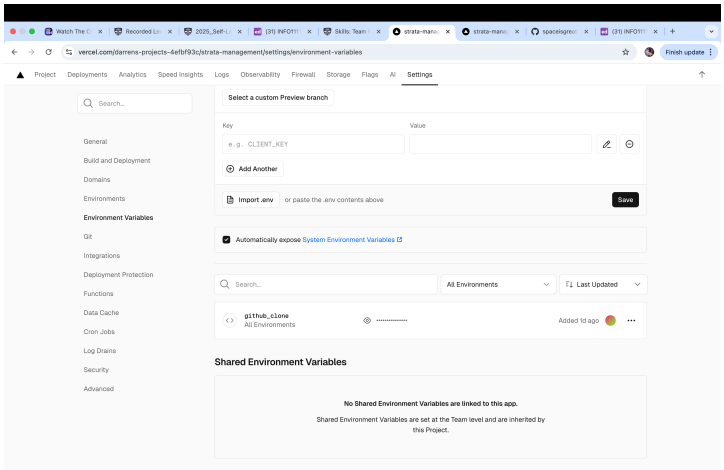
2) I created a Git repository and connected my project to Git using the terminal command “git remote add origin ”. Then, I pushed my project files using “git add .”, “git commit -m ‘Initial commit’”, and “git push origin main”.



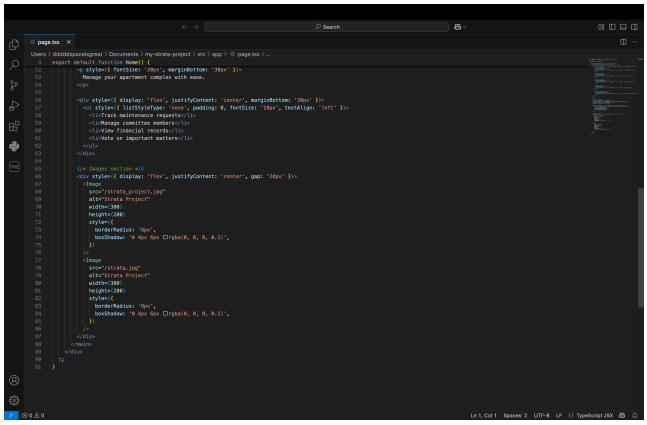
3) I signed up for Vercel, imported my Git repository, and deployed my website.

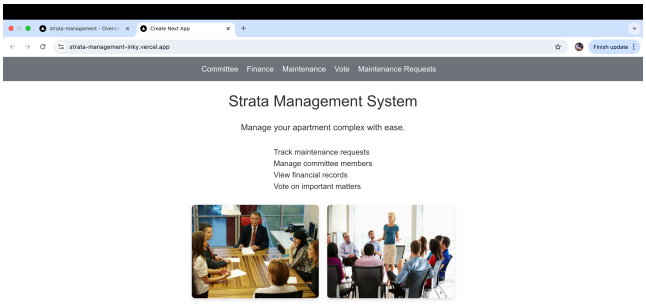


4) I configured basic environment variables through the project settings on Vercel.

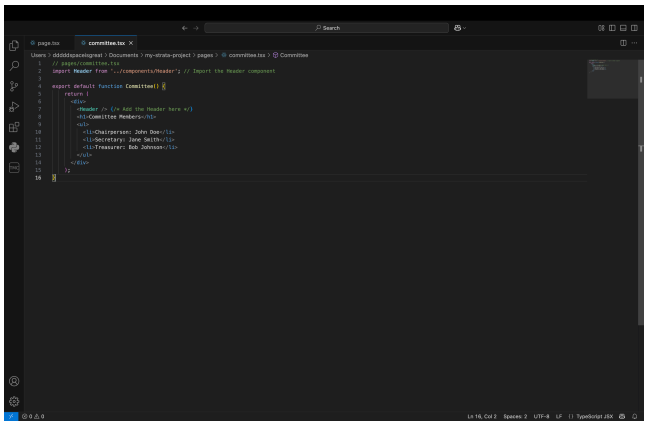


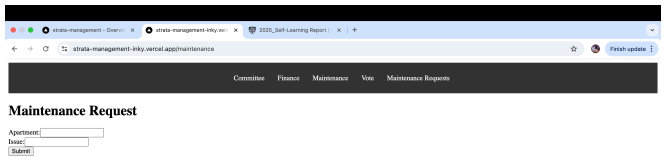
5) I added images by placing them in the public folder and referencing them in page.tsx using the <Image> component.



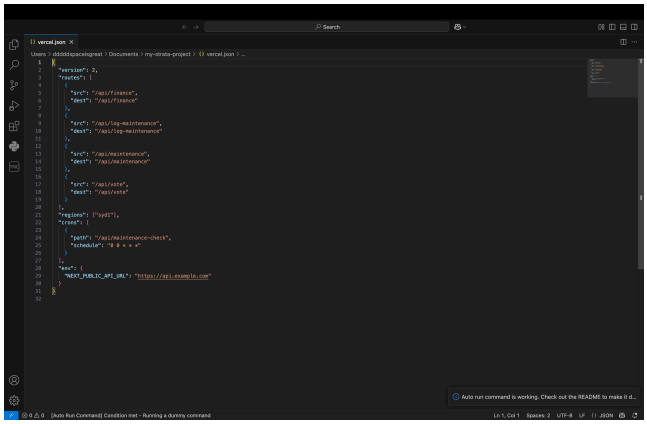


6) I created a pages folder and added six webpages with AI assistance: committee, finance, maintenance-requests, maintenance, vote, and thank-you. The committee page displays committee members. The finance page shows a quarterly financial report. The maintenance-requests page fetches and displays maintenance requests using a GET request. The maintenance page allows users to submit maintenance requests using a POST request. The vote page enables users to vote on important issues. The thank-you page displays a message after form submission.

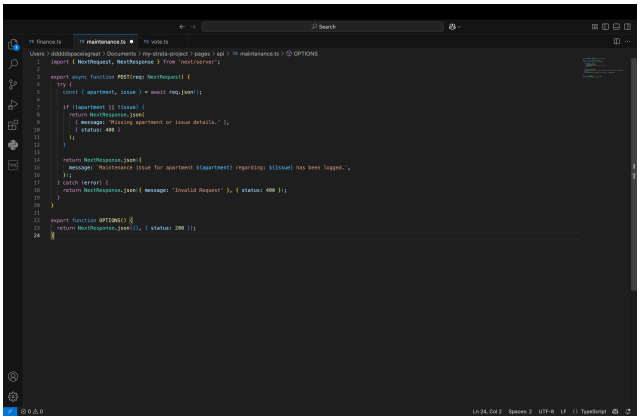


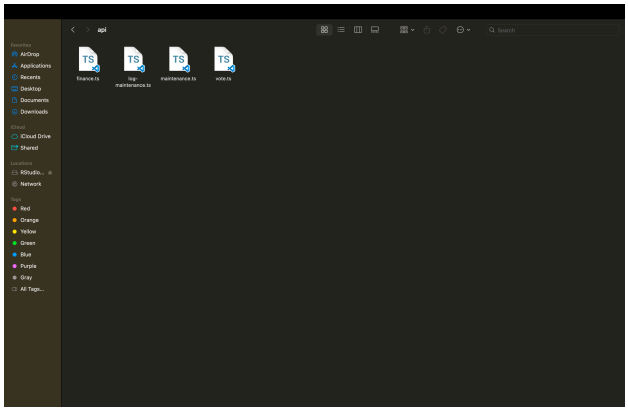


7)I added a vercel.json file to configure project settings on Vercel. The deployment region defines where the project is hosted to reduce user latency, such as syd1 for Sydney. Cron jobs automate tasks at set intervals, such as weekly data backups at certain time. Custom build commands specify pre-deployment build steps. Since I use Next.js, I included “npm run build”.



8) Edge functions process requests closer to users, improving performance compared to regular serverless functions. I added three edge functions with AI assistance. The finance page logs financial requests for apartments. The maintenance page logs maintenance issues. The vote page logs voting requests.

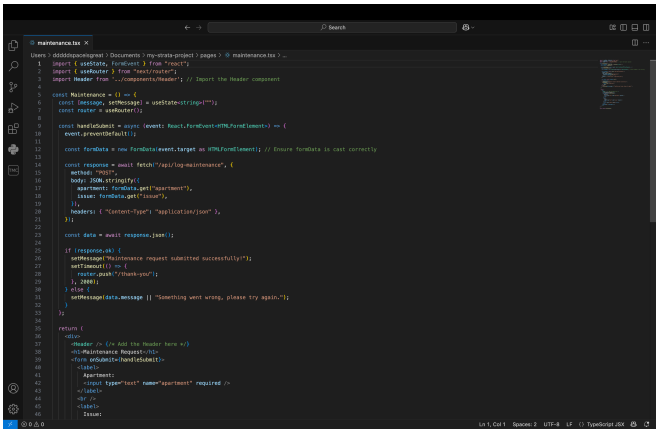


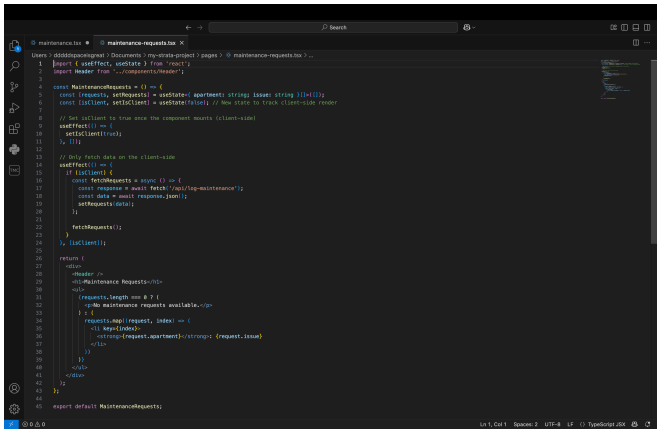


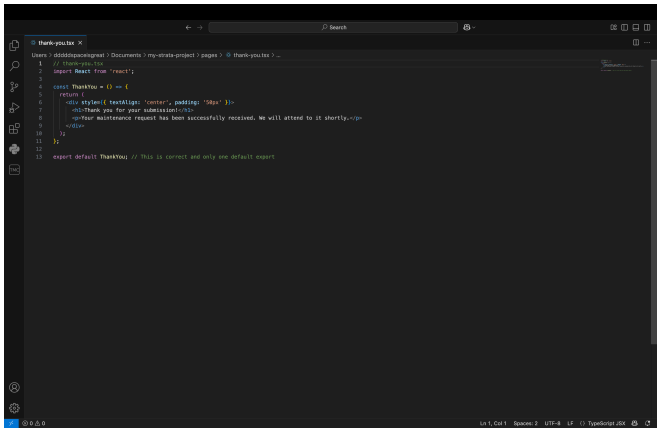
9) A GET request fetches data from a server. I implemented it in my maintenance form to retrieve submitted maintenance data. A POST request sends data to a server. I used it in my maintenance-request form to display submitted data.

HTTP status codes are three-digit numbers that indicate request outcomes. Some example is 404 for not found, 200 for okay, and 502 for bad gateway.

A redirect automatically sends users to another URL. I used NextResponse.redirect() in my maintenance form to send users to a thank-you page after submission







5. Evaluation

5.1. Knowledge and skills

QUESTIONS	YOUR ANSWER
1. To what extent did you reach the goals for this report?	I am able to create my own website in Vercel
2. What barriers did you face in reaching the goals?	Knowledge gap, lack of quality resources
3. What worked well for you in doing the report?	Online resources, AI
4. What was frustrating?	Code not working, bad resources
5. Other?.....	

5.2. Reflect on your use of generative AI. Keep in mind, for this assignment any use of AI to write code and help with your learning is allowed an encouraged, however the University does not condone the use of the DeepSeek AI model. All students have access to Microsoft Copilot for free, read more here: How to use generative artificial intelligence in the classroom - The University of Sydney. You may also choose to use an AI-powered code editor (IDE) like Cursor or Windsurf.

QUESTIONS	YOUR ANSWER
1. To what extent did you use generative AI in this task? Provide an example of where you used AI.	I used AI to help me find good resources, explain difficult concepts, troubleshoot coding issues, help code, and refine my report.
2. What kinds of prompts were helpful? Did you ask follow-up questions? For what kinds of things?	Help me explain this concept in simple terms, Help me fix my code, Please refine my text. I asked follow up questions when my problems aren't fully solved yet.
3. What kinds of prompts were not helpful? Were there any instances of the AI model giving output which did not work or was not expected?	Sometimes the code doesn't work or doesn't make sense.
4. Imagine that AI was unavailable or its use was prohibited. Do you think you would you have been able to achieve the goals for this task? Why / why not?	I could have done it without AI, but it would have been much more difficult. I would have had to spend significantly more time solving problems and understanding complex concepts on my own.

5. Do you think that this task has improved your confidence with using AI? What new use cases of generative AI did you discover, and what applications do you think they will have for you in the future?	Yes, it taught me that AI can be a useful tool, but it has certain limitations. While AI can provide guidance, there are times when it's better to figure things out ourselves. In the future, I can use AI to support my work and studies, but I will also be mindful of when to rely on my own problem-solving skills.
6. Identify and compare the aspects of the task that AI could help with, and the aspects that AI could not help with. Do you think that in the future, AI capabilities might expand even further to cover more of those things? How would you expect your role to adapt, if you imagine that this task was part of your job?	AI helped me with difficult concepts and troubleshooting my code, but it sometimes gave unclear or incorrect advice. In the future, AI capabilities can definitely expand. I would diversify myself to learn new things so I can enhance my skills.
7. Other?.....	

5.3. General self-learning learning processes

QUESTIONS	YOUR ANSWER
1. What worked?	Online resources, AI
2. What didn't?	Doing things without a plan
3. What would you do differently?	Set a clear strategy on how to do the project
4. What did you learn about yourself?	I learn best at my own pace
5. What recommendations would you make to your future self? What about your past self (before you started the	Set up a plan before starting the project
6. What would you recommend to someone else?	Use AI to help troubleshoot code
7. Other?.....	

6. Learning sources

Learning Source - What source did you use? (Note: Include source details such as links to websites, videos etc.). Contribution to Learning - How did the source contribute to your learning (i.e. what did you use the source for?). You may use information from your Journal for this.

Learning Source - What source did you use? (Note: Include source details such as links to websites, videos etc.).	Contribution to Learning - How did the source contribute to your learning (i.e. what did you use the source for)?
https://vercel.com/docs/environment-variables link to website	Help for environment variables
https://nodejs.org/en/learn/getting-started/introduction-to-nodejs link to	Basic information on Node.js
https://www.computerhope.com/issues/ch002070.htm link to website	Help with webpages

Bibliography

[1] The University of Sydney, _Referencing and citation styles: IEEE,_ 2022, see https://libguides.library.usyd.edu.au/c.php?g=508212.