IS601 COURSE REFLECTION

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My journey through IS601 has truly been life-changing. When I first started, I knew very little about building professional web applications. Now, I can confidently work complex frameworks and tools that seemed impossible to understand before.

Learning to set up and manage web applications was a breakthrough moment for me. We explored everything from handling secret keys through environment variables to properly structuring error response. This hands-on approach showed me how real applications function in the professional world, not just in textbooks or tutorials.

Building and using RESTful APIs became one of my strongest new skills. I loved the challenge of creating clear, efficient endpoints and then seeing other systems successfully connect to them. This practical experience helped me truly understand how the modern web functions as interconnected services rather than isolated applications.

They way I use GIT has completely transformed. Before, I made random commits with unclear messages. Now, I carefully create feature branches, write detailed commit messages that explain "why" not just "what", and use pull requests to get feedback. These practices showed me why proper version control is the backbone of any serious development project.

Docker was definitely my favorite discovery. What once looked like complicated magic is now a tool I use confidently. I've created custom Docker files, set up environments with multiple services using docker-compose, and learned how to make databases, caching systems, and web servers work together seamlessly. Seeing all these pieces connect has been incredibly rewarding.

The course's focus on security opened my eyes to how vulnerable applications can be without proper protection. Working with JWT tokens, implementing OAuth2, and building role-based success systems gave me confidence in creating secure applications. Learning to defend against CSRF and XSS attacks taught me skills that will protect my future projects from common threats.

Testing is now something I value deeply. Using pytest for both small unit tests and larger integration tests completely changed how I approach writing code. Setting up automated testing with GitHub Actions means I can catch problems before they reach production. This systematic approach to quality has made me a more thoughtful and careful developer.

Overall, IS601 has transformed me from someone with basic web knowledge into a developer who can build and deploy secure, well-structured applications ready for real users. I now feel truly prepared to join development teams and contribution to meaningful projects in the industry.

What truly made this course exceptional was Professor William's focus on real-world industry applications. Our discussions about rapidly evolving technology trends-how the tech landscape transforms dramatically every few months-opened my eyes to exciting possibilities. The professor consistently highlighted valuable open-source tools and platforms, from powerful AI systems like GPT and Claude to various websites builders and video creation tools that are accessible to everyone.

One of the most valuable insight I gained was understanding how job roles are evolving. The professor emphasized that product engineers will be increasingly in demand, as companies look versatile professionals who can effectively handle multiple job responsibilities with the assistance of AI tools. These conversations about the changing job market helped me understand how to position myself competitively in an industry where adaptability is crucial.

Beyond technical skills, I learned how to build a compelling resume and develop a personal skill set that makes me more marketable as an aspiring product engineer. The real world-provided invaluable context that goes far beyond typical classroom learning, This practical knowledge has prepared me to native the professional landscape with confidence and purpose.

- [GitHub repo link](#)
- [Docker File](#)
- [GitHub Action](#)
- 5 QA issues
    - [Issue 1](#)
    - [Issue 2](#)
    - [Issue 3](#)
    - [Issue 4](#)
    - [Issue 5](#)
- [New feature added](#) – User search and filtering.
- 10 New test improvement – [here](#)