**IS601 Course Reflection**

This is the first time, I worked with Python as I previously worked a Java developer, I was surprised by how clean, simple, and readable Python is. It made me appreciate the value of writing code that not only works but is also easy for others to understand and maintain.

Throughout the semester, the weekly assignments helped me build the skills in both development and testing. I learned about FastAPI, Docker, GitHub Actions, design principles, and working collaboratively using Git. I also learned new concepts like writing tests using pytest, catching issues through pylance, and ensuring coverage with the --cov command. These tests with related to QA have completely changed how I write and think about code. I now understand how important it is to write code that is testable, maintainable, and easy for coworkers and future developers to understand and follow and improve in future on the need.

For the final project, I implemented a User Search & Filtering feature, which allowed filtering users based on fields like email, role, and nickname. This involved designing clean query logic, ensuring proper database connection and interaction, and added few validators to prevent injection or incorrect filtering. I also tested the functionality, fixed over 5 bugs through QA, and created 10 additional test cases to improve coverage and reliability. Working through these challenges helped me improve my debugging and test-driven development skills.

Thank you for introducing us to valuable tools and resources like GROQ AI, Windsurf AI, Autocode, Agile Manifesto, and Refactoring.Guru. These helped my understanding of real-world software practices. Most importantly, I appreciated the insights you gave us into the current and future impact of AI. You explained how much of a game changer AI is becoming in the industry, and how crucial it is for developers to adopt and grow with AI to stay relevant. Without doing so, it’s going to be hard to keep up in the years ahead.

Thank you had a great time learning new things in software world.

**Links:**

1. [GitHub Repository](https://github.com/JaswanthKSnjit/IS601-final)
2. [GitHub Actions](https://github.com/JaswanthKSnjit/IS601-final/actions)
3. [Docker Repository](https://hub.docker.com/repository/docker/jaswanthks/is601-final)
4. [User Search and Filtering – New Feature](https://github.com/JaswanthKSnjit/IS601-final/tree/feature-user-search-filtering)

[Here](https://github.com/JaswanthKSnjit/IS601-final/blob/main/New_Feautre.md) is the detailed explanation for the New Feature.

1. QA Issues
   1. [Invalid Image URL in Profile – Issue 1](https://github.com/JaswanthKSnjit/IS601-final/issues/3)
   2. [Password Policy – Issue 2](https://github.com/JaswanthKSnjit/IS601-final/issues/5)
   3. [Name Mismatch – Issue 3](https://github.com/JaswanthKSnjit/IS601-final/issues/7)
   4. [Duplicate Email – Issue 4](https://github.com/JaswanthKSnjit/IS601-final/issues/10)
   5. [Email Verification – Issue 5](https://github.com/JaswanthKSnjit/IS601-final/issues/12)

[Here](https://github.com/JaswanthKSnjit/IS601-final/blob/feature-user-search-filtering/QA_Issues.md) is the detailed explanation for all 5 QA Issues.

1. New Test
   1. [Test 1](https://github.com/JaswanthKSnjit/IS601-final/issues/17)
   2. [Test 2](https://github.com/JaswanthKSnjit/IS601-final/issues/19)
   3. [Test 3](https://github.com/JaswanthKSnjit/IS601-final/issues/21)
   4. [Test 4](https://github.com/JaswanthKSnjit/IS601-final/issues/23)
   5. [Test 5](https://github.com/JaswanthKSnjit/IS601-final/issues/25)
   6. [Test 6](https://github.com/JaswanthKSnjit/IS601-final/issues/27)
   7. [Test 7](https://github.com/JaswanthKSnjit/IS601-final/issues/29)
   8. [Test 8](https://github.com/JaswanthKSnjit/IS601-final/issues/31)
   9. [Test 9](https://github.com/JaswanthKSnjit/IS601-final/issues/33)
   10. [Test 10](https://github.com/JaswanthKSnjit/IS601-final/issues/35)

[Here](https://github.com/JaswanthKSnjit/IS601-final/blob/main/test.md) is the detailed explanation for all 10 new tests

1. All the screenshots can be viewed [here](https://github.com/JaswanthKSnjit/IS601-final/tree/main/Screenshots)