

## **LABORATORY EXERCISE #4**

### **Design Patterns and Unit Testing**

#### **PreLab**

METIS #1:  
Python Projects  
Laura Cassell, Alan Gauld  
Edition 1  
ISBN: 9781118909195 (new)  
9781118908891 (old)  
Wiley Professional Development (P&T)

\*\*\* Chapter 4: Building Desktop Applications \*\*\*  
- MVC Pattern - page 221 (new ISBN)

- \* OLD Edition
- \* Tic Tac Toe (Console App), pp. 162 to 173
- \* Tic Tac Toe (GUI App), pp. 186 to 193

METIS #2:  
Testing Python  
Sale, D. (2014). Testing Python. Wiley Professional, Reference & Trade (Wiley K&L).  
<https://bookshelf.vitalsource.com/books/9781118901243>

Professional Python (NOT AVAILABLE IN METIS)  
Luke Sneeringer  
Edition 1  
ISBN: 9781119070832  
Wiley Professional Development (P&T)  
- Unit Testing, (Chap 11)

#### **Readings, Insights, and Reflection:**

- Torres, Nicole Allyson B.
  - Python Projects (Chapter 4) and Testing Python: Sale, D. (2014)
  - The book "Python Projects" by Laura Cassell and Alan Gauld focuses on creating desktop applications using Python. Chapter 4 covers GUI design, event handling, and integrating functionality into an application. We have learned that we can develop interactive and user-friendly desktop software by leveraging Python libraries like Tkinter, PyQt, or wxPython. It also provides a detailed discussion on the nuances of desktop application development, including structuring code,

handling user interactions, managing application states, and deploying applications across different platforms. Reading the book helps me understand more about building desktop applications using Python libraries that equip them with practical skills and strategies to effectively design, develop, and deploy robust desktop applications.

- o "Testing Python" is a comprehensive book by Sale D. in 2014, aimed at developers who want to learn the crucial practice of testing code in Python. The book offers valuable insights and methodologies for both beginners and experienced Python programmers, providing a well-rounded resource on the significance of testing in software development. The book covers various testing frameworks, such as unit test, pytest, and doctest, and strategies for writing practical test cases and ensuring code reliability. Sale discusses best practices and pitfalls in testing Python code, equipping readers with the knowledge and tools to enhance code quality, streamline development processes, and build robust, error-free applications.

Overall, "Testing Python" is an invaluable asset for Python developers looking to improve their testing skills and create more reliable software products. With its comprehensive approach and emphasis on practical application, this book is a must-read for any developer who wants to build better Python applications through practical testing.

- Pangilinan, Cromuel

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- Gavino, Karl Ignatius G.

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- Alonzo, Xavier
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