

ITBU 443: Threats and Counter Measures, Homework 11

Chapter 11, *Computer Security, Principles and Practices*

Readings

Read chapter 11 in the *Computer Security, Principles and Practices* book.

Discussion Questions

Answer the discussion questions in writing.

1. What is the difference between software quality and software security?
2. How can a programmer program defensively?
3. How would you explain an *injection attack* to your grandmother? This explanation must include a description of the name “injection attack.”
4. How do command injection attacks and SQL injection attacks differ? What similarities do they have?
5. Discuss *input validation*. This is an important question.
6. (Not in book) In general, we can perform user input validation client side or server side. Name one technique used for each means of user input validation.
7. What is *input fuzzing*?
8. What is a *race condition*? What does the name “race condition” refer to?
9. How does the principle of *least privilege* assist in securing software?
10. What is a *lockfile*? What is the purpose of lockfiles?
11. How can an attacker exploit unvalidated data sent from one process to another process?