

# Software Engineering, Global Edition

## Chapter 8 – Software Testing

This chapter introduces the **practical aspects of software testing** within the broader software engineering context. It frames testing as part of the verification and validation (V&V) process.

### Key Takeaways:

- **Purpose of Testing:** To show that a program does what it is intended to do and to find bugs.
- **Testing Stages:** Unit testing, integration testing, system testing, and acceptance testing.
- **Development vs. Testing Teams:** Advocates separation of roles to ensure objectivity.
- **Test Types:**
  - *Defect Testing:* Finding defects by running tests.
  - *Debugging:* Locating and correcting the source of defects.
- **Automated Testing:** Increasingly common, especially in agile and DevOps environments.
- **Test-Driven Development (TDD):** Write tests before code to clarify requirements and drive design.

This chapter emphasizes **test planning, test automation, and aligning testing with the software development lifecycle**, especially in iterative and agile models.