

# 37 Lecture - CS504

## Important Subjective

**1. Question: What is the main purpose of software development?**

**Answer:** The main purpose of software development is to create functional and reliable software applications that meet user requirements and business needs.

**2. Question: Explain the role of testing in the software development process.**

**Answer:** Testing plays a crucial role in the software development process as it helps identify defects, bugs, and errors in the software, ensuring that the application meets quality standards and functions as intended.

**3. Question: What are the primary responsibilities of the development team in a software project?**

**Answer:** The development team is responsible for writing, designing, and implementing the code that forms the foundation of the software application, based on the specified requirements.

**4. Question: How does the testing process contribute to overall software quality?**

**Answer:** The testing process ensures that all parts of the software function as expected, helping to identify and fix defects early in the development cycle, resulting in improved overall software quality.

**5. Question: Discuss the importance of collaboration between development and testing teams.**

**Answer:** Collaboration between development and testing teams is crucial as it fosters effective communication, better understanding of requirements, and the exchange of knowledge to create a high-quality software product.

**6. Question: What are the different types of testing that can be performed during the software development life cycle?**

**Answer:** Different types of testing include unit testing, integration testing, system testing, acceptance testing, and regression testing, each focusing on different aspects of the software.

**7. Question: How does the testing process contribute to cost savings in software development?**

**Answer:** The early detection and resolution of defects during testing help avoid expensive fixes in later stages of development, leading to significant cost savings in the long run.

**8. Question: Describe the concept of test-driven development (TDD).**

**Answer:** Test-driven development (TDD) is a development approach where developers write unit tests before implementing the code. TDD ensures that the code meets the desired functionality and that any changes are detected immediately through automated tests.

**9. Question: What are some common challenges faced by both development and testing teams during the software development process?**

**Answer:** Some common challenges include tight deadlines, ambiguous requirements, communication gaps, and maintaining the balance between speed and quality.

**10. Question: How can continuous integration and continuous testing practices improve software development efficiency?**

**Answer:** Continuous integration and continuous testing practices help detect integration issues early, facilitate faster feedback loops, and allow for faster deployment of software updates, thereby improving development efficiency and overall software quality.