

Learning Guide Unit 5

Reading Assignment

As you go through the readings and watch the videos, consider the following:

1. Explain the role of cost estimation in software testing and how it influences the decision-making process for selecting testing types.
2. Describe Test-Driven Development (TDD) and discuss its advantages in ensuring code quality during software development.

Read:

1. Summers, B. L. (2020). *Effective methods for software engineering*. Auerbach Publishers, Incorporated.

- Read Chapter 13: Software Engineering Testing Results (pp. 132 - 136)
 - The chapter on Software Engineering Testing Results focuses on analyzing and interpreting the outcomes of software testing processes. It explores the significance of testing in ensuring software quality, highlighting various methods for evaluating test results effectively. The chapter covers key concepts such as defect detection, test coverage, and performance metrics, and provides insights into how testing results influence decision-making and project progress.
- 2. Goericke, S. (2019). *The future of software quality assurance*. Springer International Publishing AG.
 - Read Chapter: The Future of Testing (pp. 197 - 205)
 - The chapter on "The Future of Software Quality Assurance" delves into the evolving landscape of QA practices in the software development industry. As technology advances and software systems become increasingly complex, the role of QA is transforming to meet new challenges. This chapter examines emerging trends such as automation, AI-driven testing, and continuous integration, highlighting how they are shaping the future of software quality assurance.

To read these books:

- Log into the UoPeople library and go to LIRN. [How to Access LIRN is now added to the library](#).
- Select Computer Science under the "**Jump to the Specific Group**" section.
- Search using the entire name of the book.
- View the online book.

Additional Watch:

1. The Testing Academy. (2022, August 4). *5 common software testing types explained in 7 minutes | Software testing types with examples* [Video].

- This video provides a concise overview of common software testing types, explaining their purpose and key differences in just seven minutes. It covers various testing methods such as unit testing, integration testing, system testing, and acceptance testing, helping viewers understand their importance in ensuring software quality and reliability.

5 Common Software Testing Types Explained in 7 minutes ...

2. The Testing Academy. (2020, June 25). *What is TDD (Test Driven Development)? | How to do TDD with example* | Day19 [Video].

- The video "What is TDD (Test Driven Development)? | How to do TDD with example" provides an in-depth explanation of the Test-Driven Development process, demonstrating how developers write tests before writing the code itself. It showcases the benefits of TDD, such as improving code quality and ensuring robust functionality, with practical examples

What is TDD (Test Driven Development)? | How to do TDD ...

3. Jelvix | TECH IN 5 Minutes. (2021, February 26). *BEST AUTOMATION TESTING TOOLS, RANKED* [Video].

- This video provides an overview of the best automation testing tools available, highlighting their features, advantages, and use cases in enhancing software testing efficiency. It covers popular tools such as Selenium, JUnit, and TestComplete, explaining how they streamline testing processes, improve accuracy, and reduce manual testing efforts.

BEST AUTOMATION TESTING TOOLS, RANKED

4. Jelvix | TECH IN 5 Minutes. (2020, October 23). *QA METHODOLOGIES | ROLE OF QA IN SOFTWARE DEVELOPMENT METHODOLOGIES* [Video].

- The video "QA Methodologies | Role of QA in Software Development Methodologies" explores the critical role of Quality Assurance (QA) in the software development lifecycle. It covers various QA methodologies, explaining how they contribute to ensuring software quality, efficiency, and successful project delivery.

QA METHODOLOGIES | ROLE OF QA IN SOFTWARE DEVEL...