**Full-Day Project: Software Testing Case Study**

**Project Objective:**

To apply the theoretical knowledge gained during the ISTQB Foundation Level course to a real-world software testing scenario. Students will work in teams to identify test cases, execute tests, log defects, and generate test reports.

**Project Scenario:**

Imagine you're part of a software testing team working on a web-based learning management system (LMS). The LMS allows users to:

1. **Student Features:**
   * Enroll in courses
   * View course materials (videos, documents, quizzes)
   * Submit assignments
   * Take online quizzes
   * Track their progress
   * Interact with instructors and peers through discussion forums
2. **Instructor Features:**
   * Create and manage courses
   * Upload course materials
   * Assign quizzes and assignments
   * Grade student submissions
   * Monitor student progress
   * Provide feedback to students

**Project Tasks:**

1. **Requirements Analysis:**
   * Review the provided functional and non-functional requirements for the LMS.
   * Identify any ambiguities or missing information.
   * Ask clarifying questions to the project manager or product owner.
2. **Test Planning:**
   * Develop a high-level test plan outlining the overall testing approach, scope, resources, and timeline.
   * Create a detailed test plan, including test objectives, test strategies, test environments, test data, and test schedule.
3. **Test Case Design:**
   * Design test cases using various testing techniques (e.g., equivalence partitioning, boundary value analysis, decision table testing, state transition testing, use case testing).
   * Prioritize test cases based on risk and criticality.
4. **Test Execution:**
   * Execute test cases manually or using automated testing tools.
   * Log defects in a defect tracking tool, providing clear descriptions, steps to reproduce, and screenshots.
   * Retest fixed defects to ensure they are resolved.
5. **Test Reporting:**
   * Generate comprehensive test reports, including test summary, test execution status, defect reports, and test metrics.1
   * Analyze test results to identify trends and potential areas for improvement.

**Evaluation Criteria:**

* **Teamwork and Collaboration:**
  + Effective communication and cooperation within the team.
  + Fair distribution of work and responsibilities.
  + Ability to resolve conflicts and reach consensus.
* **Test Case Design:**
  + Quality and completeness of test cases.
  + Adherence to testing techniques and best practices.
  + Coverage of functional and non-functional requirements.
* **Test Execution:**
  + Accuracy and thoroughness of test execution.
  + Timely identification and reporting of defects.
  + Effective use of testing tools and techniques.
* **Test Reporting:**
  + Clarity and conciseness of test reports.
  + Accurate presentation of test results and metrics.
  + Identification of lessons learned and recommendations for future projects.

**Additional Tips:**

* Encourage students to think critically and creatively.
* Provide guidance and support throughout the project.
* Use real-world examples and scenarios to make the project more engaging.
* Facilitate discussions and knowledge sharing among students.
* Emphasize the importance of clear and concise communication.

By completing this project, students will gain practical experience in software testing and develop a deeper understanding of the ISTQB Foundation Level syllabus.