SQA Best Professional Working Procedure by Siam

1. Requirement Analysis

- Thoroughly understand business requirements and technical specifications.
 - Identify testable requirements early.
 - Clarify ambiguities by communicating with stakeholders.

2. Test Planning

- Create a detailed **Test Plan** outlining the scope, approach, resources, and schedule.
 - Define the testing types needed (functional, performance, security, etc.).
 - Set entry and exit criteria for each testing phase.

3. Test Case Design

- Write clear, detailed, and reusable **test cases** based on requirements.
 - Cover positive, negative, boundary, and edge cases.
- Review test cases with developers and business analysts for completeness.

4. Test Environment Setup

- Set up a stable, production-like test environment (hardware, software, network).
 - Ensure necessary test data is prepared securely.

5. Test Execution

- Execute manual and/or automated test cases.
 - Track test results meticulously.
- Log any defects with full details (steps to reproduce, screenshots, logs).

6. Defect Reporting and Management

- Report defects clearly and professionally.
- Prioritize defects (critical, major, minor) based on impact.
- Collaborate closely with developers to validate fixes and retest promptly.

7. Automation Strategy

- Identify repetitive or critical test cases for automation.
- Use suitable tools (e.g., Selenium, Cypress, Postman, JMeter) depending on project needs.

• Maintain and update automated test scripts regularly.

8. Performance Testing

- Conduct performance, load, and stress testing for critical systems.
 - Analyze results and report bottlenecks early.

9. Security Testing

- Check for vulnerabilities (like SQL injection, XSS, etc.).
 - Recommend improvements to secure the application.

10. Continuous Improvement

- Participate in **retrospectives** and quality reviews.
- Suggest process improvements to reduce bugs and improve delivery speed.
 - Keep learning new tools, frameworks, and QA methodologies.

11. Documentation and Reporting

- Document all test activities (test cases, defect logs, test summary reports).
 - Provide daily or weekly status updates to project managers and clients.
 - Ensure traceability between requirements, test cases, and defects.

12. Professional Communication

- Maintain clear, respectful, and proactive communication with the team.
 - Escalate blockers early with solutions when possible.