Test Estimation Checklist for QA

Below is a comprehensive checklist to ensure all testing-related activities and factors are considered during test estimation, helping QA engineers produce accurate and reliable estimates.

1. Requirements Analysis**

- [ ] Review specifications and requirement documents.

- [ ] Analyze the *Definition of Done (DoD)*.

- [ ] Collaborate with Product Owners (POs), developers, and other stakeholders for clarity.

- [ ] Identify ambiguities or gaps in requirements.

- [ ] Assess dependencies (e.g., third-party integrations, unsupported platforms).

2. Test Planning**

- [ ] Estimate time for drafting test plans.

- [ ] Identify, evaluate, and plan tools required for testing.

- [ ] Scope the test effort (manual, automated, exploratory, etc.).

- [ ] Define testing types and strategies (e.g., regression, performance, security).

- [ ] Allocate time for resource setup (e.g., team capacity, environment requirements).

3. Test Design**

- [ ] Design test cases, including creating positive and negative test scenarios.

- [ ] Create test data and prepare scripts.

- [ ] Conduct reviews of test cases and update based on feedback.

- [ ] Design automation scripts (if required).

4. Environment and Test Data Setup**

- [ ] Allocate time to configure test setups (staging, QA environment, production).

- [ ] Prepare datasets (e.g., anonymized or synthetic data generation).

- [ ] Validate environment readiness before testing begins.

5. Test Execution**

- [ ] Execute test cases and log results.

- [ ] Estimate time for multiple testing cycles (e.g., regression testing after fixes, feature verification).

- [ ] Plan exploratory testing for scenarios not covered in predefined test cases.

- [ ] Include buffer time for defect retesting after fixes.

6. Defect Management**

- [ ] Allocate time for logging, reproducing, debugging, and verifying defects.

- [ ] Handle defect retesting cycles.

7. Risk and Complexity**

- [ ] Identify risks (e.g., vague requirements, brittle legacy systems, third-party integrations).

- [ ] Factor in uncertainty for external dependencies.

- [ ] Assess testing complexity:

  - [ ] Cross-field validations.

  - [ ] Conditional workflows.

  - [ ] Dynamic UI/behavior testing.

  - [ ] Multi-layered integrations.

8. Test Automation**

- [ ] List automation test cases and estimate time for script creation.

- [ ] Account for execution time for automation runs.

- [ ] Include maintenance costs of existing test scripts.

9. Testing Across Platforms/Browsers**

- [ ] Estimate time for cross-device/platform compatibility testing.

- [ ] Factor in different browsers, operating systems, and screen resolutions.

10. Test Reporting and Closure**

- [ ] Prepare test reports (metrics, defect logs).

- [ ] Conduct stakeholder reviews and feedback sessions (e.g., QA sign-offs).

- [ ] Include time for overall test closure activities.

11. Other Considerations**

Risk Mitigation**

- [ ] Account for unexpected project delays.

- [ ] Reflect buffer time for testing unplanned builds or changes.

- [ ] Plan efforts for testing untested legacy code or undocumented workflows.

Communication Needs

- [ ] Time for meetings, daily standups, or providing QA updates.

- [ ] Collaborate for clarification or re-confirmation of test requirements.

Knowledge Transfer

- [ ] Plan onboarding time for new QA members.

- [ ] Allocate time to train team members on tools/processes if required.

12. Estimation Techniques Applied**

- [ ] Work Breakdown Structure (WBS) used to divide tasks (if applicable).

- [ ] Incorporate Three-Point Estimation (Optimistic, Most Likely, Pessimistic).

- [ ] Use Story Points for Agile projects.

- [ ] T-Shirt Sizing applied for effort and complexity estimation.

- [ ] Delphi Technique for team collaboration in estimates.

- [ ] Leverage prior historical data for repeatable modules (experience-based estimation).

13. Quality and Review Effort**

- [ ] Review testing deliverables for adherence to standards.

- [ ] Conduct peer reviews for test cases/scripts.

14. Post-Release Support**

- [ ] Plan efforts for production sanity checks after deployment.

- [ ] Allocate time for monitoring post-deployment scenarios.

Output: QA Estimation Documents

- [ ] Requirements analysis checklist.

- [ ] Detailed estimation breakdown (hours, story points, or T-shirt sizes).

- [ ] Risks and buffer allocation.

- [ ] Presentation-ready estimation report for stakeholders.

This checklist ensures that every aspect of QA work, complexity, risks, and communication is factored into your test estimation process for reliable project planning.