TECIS503302

Test software products

Overview

This standard is concerned with the development and execution of test scripts to verify the functionality, usability, compatibility, security and/or performance of software products. It also includes logging the progress of software tests and analysis and interpretation of test results.

Performance criteria

You must be able to:

1. Prepare the test environment in line with organisational standards
2. Select automated test tools as appropriate to meet test requirements
3. Select the test cases and automated scripts to meet test requirements
4.Separate the software application into runnable modules that represent live scenarios for testing
4. Develop representative test data in line with organisational procedures
5. Conduct walk-throughs to review expected test results against acceptance criteria and system requirements documentation
6. Execute a test script (manual or automated) according to organisational procedures
7. Prepare the test log and results sheet in line with organisational standards
8. Log the test progress and defects discovered, using the approved test management tool
9. Compare actual test results to the expected results on completion of each system unit and record outcomes
10. Analyse test results to develop a clear understanding of any defects identified
11. Review test results against functional and non-functional requirements
12. Summarise and classify results, highlighting critical or urgent areas of concern, and prepare report
13. Articulate the defects identified and communicate these with software developers
14. Escalate any problems identified with testing that are outside your level of responsibility
15. Comply with organisational policies, procedures and guidelines when carrying out tests on software products

Knowledge and understanding

You need to know and understand:

1. The importance of testing in the software development and testing life cycle
2. The main approaches to software testing used in the organisation The organisational policies and procedures for carrying out manual and automated tests on software products and how to apply these
3. The activities involved in testing software using specified tools and techniques
4. When to select automated vs manual test tools for testing software functionality
5. When to select automated vs manual test tools for testing software functionality
6. How to analyse and prepare underlying test data
7. How to write and execute test procedures
8. The expected outputs from the testing process
9. The industry standards appropriate to performing software tests
10. The importance of version control for test cases and the procedures and tools for managing different versions
11. When and who to refer any problems that fall outside the limits of your authority
12. The different sources of information available for carrying out tests and how to access these
13. How the software development methodology impacts on the testing process
14. The importance of using the most up-to-date test cases, scripts, application and data
15. How to use the organisation's test management tools
16. The problems that may occur with testing
17. How to analyse and interpret test results
18. How to re-create failure scenarios
19. How to log defects into the defect tracking system
20. The importance of providing information about test results to software developers

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