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SOFTWARE TESTING AND QUALITY ASSURANCE TEAM MEMBER •  
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 Boddu - 555678 • YatharthTrivedi - 556041 [SOFTWARE TESTING PROCESS](#)

• The Software testing process is the gap between the existing software and the required software which is going to hit the market. • Types of Software Testing: • Manual Testing: In this process, The Software Tester is responsible for the identification of the defects manually in a way end user would access the end product. • Automation Testing: In this process, The Software tester is responsible for the identification of the defects using some of the automation tools. The test scripts are written to automate the repetitive tasks. It considerably reduces the amount of time to test the application. CONTI... • Test Strategy and Test Plan: This is a document describing the System to be tested, functional requirements, non-functional requirements, test approach, the process to follow for the defect resolution, tools to be used, documentation to refer while testing, Testing schedule, Approval workflows, entry and exit criteria • Test Design: The testing design depends specifically on the project and the experience is retrieved from similar projects to come up with the design. It is a set of steps to follow for testing depending on the architecture of the project. CONTI... • Test Execution: Test execution is done involving steps such as waterfall SIT (System Integration Testing.) and UAT (User acceptance testing) as a part of the agile sprint to make the testing process faster and efficient. • Test Closure: The exit criteria include the requirement coverage, minimum pass % of the coverage and critical defects affecting the functionality of the product. QUALITY STANDARDS • The structural quality of the software is usually hard to manage: It relies mostly on the expertise of the engineering team and can be assured through code review, analysis and refactoring. • At the same time, functional aspect can be assured through a set of dedicated quality management activities, which includes quality assurance, quality control, and testing. • Often used interchangeably, the three terms refer to slightly different aspects of software quality management. CONTI... • Despite a common goal of delivering a product of the best possible quality, both structurally and functionally, they use different approaches to this task. STANDARD ATTRIBUTES • This standard presents some set of quality attributes for any software such as 1) Functionality 2) Reliability 3) Usability 4) Efficiency 5) Maintainability 6) Portability SOFTWARE TESTING STANDARDS ISO/IEC 9241-11 • This standard proposed a framework that describes usability components and the relationship between them. • In this standard, the usability is considered in terms of user performance and satisfaction. According to ISO 9241-11, usability depends on the context of use and the level of usability will change as the context changes. IDENTIFICATION OF BUG. • Software bugs are of many types. A bug is a bug no matter what. But sometimes, it is important to understand the nature, its implications and the cause to process it better. • Identifying common kinds of software errors during the Testing process eliminates the high cost to fix errors as software development progresses. • Software Quality Assurance is to establish monitoring and inspecting processes at each stage of the Software Development Life Cycle. COMMON CATEGORIES OF SOFTWARE ERRORS: • Functionality errors • Communication errors • Missing command errors • Syntactic errors • Error handling errors • Calculation errors • Control flow errors Test Strategy • A test strategy is an outline that describes the testing approach of the software development cycle. It is created to inform project managers, testers, and developers about some key issues of the testing process. • This includes the testing objective, methods of testing new functions, total time and resources required for the project, and the testing environment. • Test systems portray how the item dangers of the partners are moderated at the test-level, which kinds of testing are to be performed, and which section and leave criteria to apply. CONTI... 1) UNIT TESTING: • A Unit is a littlest testable segment of framework or application which can be ordered, loved, stacked, and executed. This sort of testing tests every module independently. • The point is to test each piece of the product by isolating it. It watches that part are satisfying functionalities or

not. This sort of testing is performed by engineers. CONTI... 2) INTEGRATION TESTING: • Reconciliation means consolidating. For Example, In this testing stage, diverse programming modules are consolidated and tried as a gathering to ensure that coordinated framework is prepared for framework testing. • Coordinating testing checks the information stream from one module to different modules. This sort of testing is performed by analyzers. CONTI... 3) SYSTEM TESTING: • Framework testing is performed on a total, coordinated framework. It permits checking framework's consistency according to the prerequisites. It tests the general cooperation of parts. It includes load, execution, dependability and security testing. • Framework testing regularly the last test to check that the framework meets the particular. It assesses both useful and non- practical requirement for the testing. CONTI... 4) ACCEPTANCE TESTING: • Acknowledgment testing is a test led to discover if the prerequisites of a particular or contract are met according to its conveyance. Acknowledgment testing is fundamentally done by the client or client. In any case, different investors can be engaged with this procedure. WHO PERFORMS THE TESTS • Most of the software testing will be performed by the quality assurance that is the QA engineers during the development phase. • During the test basically, the test detects the defects as early as possible before the software engineers push it for more extensive testing • This kind of testing will be done at the development stage of the software and if changes are there will be modified at this stage. WHAT TO TEST • Most of the time in this type of testing the developing and executing, and also more automated testing will be done at the user interface and at the API's • Unit testing is a kind of testing in which the developers will write the unit tests in order to make sure that the unit will be working perfectly with a wide range of valid and invalid inputs. • Developers will also work on some of the mock objects in order to make sure their units are tested independently. SOURCES USED FOR TEST CASES • Test code is a document with a set of conditions and expected results, under which a tester will verify compliance against a specific requirement. The purpose of writing test cases is to help standardize the testing process and minimize arbitrary approaches (Rotherme, Untch, Chu & Harrold, 1999). • Test codes are very advantageous when it comes to software testing. • This is because it allows the same tests to be run constantly alongside successive versions of the software, allowing for effective and steady testing. CONT.. Some of the sources include: 1. Requirements and user stories 2. Wireframes 3. Operating system structure 4. Source code AUTOMATION TESTING • This kind of testing is also known as the test automation, here in this kind of resting tester writes the tests and uses the different software to test the product. • And in the automation testing, the test scenarios will be performed manually, quickly and also repeatedly. • Automation testing is also used for testing the application form the load, performance and also stress point from the view. SOFTWARE TESTING TOOLS • Some of the tools that were used for software testing is: • HP quick test professional • Selenium • Test complete • WinRunner • LoadRunner WHERE TO PERFORM TESTS • Testing is the basic activity aimed at detecting and solving technical issues in the software source code and assessing the overall product usability, performance, security, and compatibility. • Of the considerable number of practices, you can use to help your craftsmanship, you will get the most profit by testing. • Untested existing code exhibits an increasingly imposing test because there are such many alternatives for how to begin. CONTI.... • Nobody has found the enchantment equation for flawless testing. This implies, as professionals, we must apply a blend of thinking, background, and instinct when we compose tests. • As a matter of first importance, I center around the reason for the product I am trying. Second, I effectively work to decrease the level of coupling presented by the tests. How about we consider reason now we will examine coupling in the following section. WHEN ARE TESTS TERMINATED • One of the Most

difficult issues is choosing when to quit testing since it is difficult to know when every one of the deformities has been distinguished. There are at any rate four criteria for existing testing. • Booked testing time has expired: This model is weak because it has nothing to do with confirming the nature of the application. This does not consider that there might be a deficient number of test cases or the way that there may not be any more deformities that are effectively noticeable. SOFTWARE TEST PLAN • Definition: It is a document which gives the details of testing tasks and testing activities. Also, it will give us the scope and approach towards the testing schedule. Types of Test Plan:- 1) Master Test Plan : It is the High-level test plan which gives all the details of testing at a higher level. 2) Testing Level Specific test plans 3) Unit Level Testing:-It is a level of testing where each of the components of software is tested and the main purpose is to validate function of each unit performance. TEST PLAN GUIDELINES 1. The test plan is not the same every time and it should be updated every time on the requirement basis. 2. It should be prepared by QA manager /QA lead based on the requirements and also they may take input from all the team members. 3. A Test plan can be reviewed by the business analyst, Project managers, and other team members to enhance transparency. 4. The more detailed plan is more successful with a detailed plan. 5. Generally it will take 1/3 of the time to prepare and the remaining time is to test plan review and execution REGRESSION TESTING • According to Sabrina and Marcelo, regression testing is a term or a software testing which tells that latest change in the code or a program or in a component has not negatively affected on the features which are already available. • Regression testing is the full end to end testing of the test cases which is existed and which is part of a test plan. • Which is helpful for checking on the existing functionality is not impacted by the latest change. NEED OF REGRESSION TESTING • It is required when • Requirements get change so easily and frequently • Change in framework and change in code • Adding a new feature into existing features • When defect found and it gets fixed • Performance of the app gets fixed TECHNIQUES OF REGRESSION TESTING One Day Regression Regression Testing Selection based regression All testcases regression SOFTWARE TEST REPORT • According to Chen, a test report is a result of the conducted test in an organized manner. • This data is basically reflecting as a testing result about how many test cases it gets passed and how many get failed. • Through this organization can easily understand the operating conditions and can easily understand about releasing the feature or not. • Which compare between test result with the test objectives CONCLUSION • Software testing and Quality Assurance is an important part of an organization. This cannot be defined as a single activity because it always is taken care of after every single development. This is a part of a software lifecycle • Nowadays the complexity of the software system is on the top and that is the reason for having well-planned testing. This effort should have to increase to make better software for client and users. REFERENCES • Chen, N. "IEEE std 829-2008 and Agile Process - Can They Work Together?", 2013 International Conference on Software Engineering Research and Practice. 2013 • Michel, C.R. and Matt, J. Scrum and CMMI: Going from Good to Great. In Agile Conference, 2009, pages 333-337. • A. S. Brakarenka. In: Pribory i Metody Izmerenij, Vol 0, Iss 2, Pp 75-80 (2015); Belarusian National Technical University, 2015. • Jeffery, Caroline; Beckworth, Colin; Hadden, Wilbur C.; Ouma, Joseph; Lwanga, Stephen K.; Valadez, Joseph J. AIDS Care. Apr2016. CONTI... • By: Williams, Owain David; Dean, Judith Ann; Harting, Kim; Bath, Kate; Gilks, Charles F. AIDS Care. Jan2017. • By: O'Connell Ferster, Ashley P.; Hu, Amanda. ENT: Ear, Nose & Throat Journal. Mar2017. • David, F. M., Chan, E., Carlyle, J. C., & Campbell, R. H. (2008, December). CuriOS: Improving Reliability through Operating System Structure. In OSDI (Vol. 8, pp. 59-72). • Eisenbarth, T., Koschke, R., & Simon, D. (2003). Locating features in source code. IEEE Transactions on software engineering, 29(3), 210-224. CONTI... •

Mankovskii, S. (2016). U.S. Patent Application No. 14/643,029. • [Randell, B. \(1975\). System structure for software fault tolerance. Ieee transactions on software engineering,\\_\(2\),\\_220-232.](#)