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QA Manual Testing

QUESTION: INTERVIEW

Important interview question

Difference between test plan and test strategy

Test plan is the what or is a document , which outlines the scope, objective , method and test of software. It is also an outline to define what to do with SDLC

Test Strategy is the actual testing which follows a set of very defined set of guiding principles, is the how of testing the software , it is a systematic approach to ensure quality, traceability, reliability and planning. It is a plan for defining the outline to STLC

What is risk -based testing?

It is a testing based on probability of risk. It involves assessing the risk, based on the complexity, and defect presented in the risk analysis. Its object is to minimized quality risk at a acceptable level.

Test planning

Document that describes the test strategy, objectives, schedule, estimation, deliverables, and resources required to perform testing for a software product.

Defect clustering: small number of several defects in a particular module which contains the most defects.

Pesticide paradox: if you run the same tests cases over and over, eventually these tests will not help in finding the new defects

Bug triage is the process of going through a list of bugs to find bugs that need assistance, escalation, or follow-up.

What is traceability matrix – is a document, usually in the form of a table, used to assist in determining the completeness of a relationship by mapping and tracing back baselined documents using a many to many relationships’ comparison.

What is equivalence partitioning – is a type of black box testing which can be applied to all levels of software testing like unit, integration, system, etc. what it does is to input data units that are divided into equivalent partitions that can be us4de to derive test cases, the purpose it to reduce time with small number of cases.

What is static / dynamic testing – static testing is the testing of software work products manually or with a set of tools, but they are not executed. It is all review of documents for software design, where conditions and parameters are not change, this involves walkthroughs. This is done because 50% of all errors occurred at the requirement and design phase of software development.

Dynamic testing – testing done by executing the code, which is a kind of testing that changes values and conditions. Which involves two methods – white box and black box

White box – requires the tester to know and understand how the software works – they see the program.

Black box – requires the tester to understand what the program is supposed to do, but not how it works.

What is functional testing – it is the testing of the functions of components or system. It refers to actions that verify the function of the code. Functional test tends to answer the questions like “can the user do this”, or “does this feature works”,

What is non functional testing – quality issues can be detected if non functional testing is not done. A common example of non functional testing includes performance , and security testing.

What is meant by test converge or test convergence – is a mathematical method for the convergence , conditional , absolute convergence , interval of convergence , or divergence of an infinite series .

What is meant by test coverage – requirement of customer is to be verify at the early testing stage to determine if test case meet software requirements. It is achieved with good requirements traceability.

What is alpha testing – is a type of software testing performed to identify bugs before releasing the software product to the real user or client. The objective here is to refine the software product by finding and fixing bugs that were missed in previous tests.

What is beta testing is a type of field testing? It takes place at the customer’s site. It sends the system/ software to users who install it and use it under real world working conditions.

What is regressive testing or regression testing – any modification or changes made to the application, any small change is done to the code, such can bring unexpected issues. Considering those changes, it becomes necessary to test the previous functionality. This can be done using the regression testing.

Re-testing

Definition: Retesting is a type of software testing which is carried out to make sure that the tests cases which failed in the previous execution pass after the defects against those failures are fixed.

Purpose: The purpose of re-testing is to ensure that the previously identified bugs are fixed.

What are the different levels of testing? Unit testing, integration testing, system testing, acceptance testing. –

Unit testing – done by coder to test code is functional and meeting users’ specifications.

Integration testing -two modules are integrated, to test its functionality and behavior.

System testing – test compatibility of application code with the current system

Acceptance testing – specification and requirement are formulated in accordance to design this method of acceptance covers that process.

**Exploratory testing** is an approach to [software testing](https://en.wikipedia.org/wiki/Software_testing) that is concisely described as simultaneous learning, [test design](https://en.wikipedia.org/wiki/Test_design) and test execution. Test on the flight

What is severity of a defect -it is how damaging a defect can be to the software. In other words, it defines the impact that a defect has on the system. – example if web page crashes when you click on link.

What is priority of a defect – priority defines (time) to resolve a particular defect. It is set by tester to developer with a time frame to fix the defect.

Examples of high severity, low priority defect

Example of high priority, low severity defect

Example of high priority, high severity defect

What are the phases involved in software testing life cycle – for this requirement analysis, software tester must view, study, and analyze the requirements and specifications – this is done by test planning, test case designing and development, test environment, test execution, and test closure.

What are the different methods for testing – the difference methods of testing consist of white box and black box testing.

Explain bug life cycle or defect life cycle – is a cycle which a defect goes through during its lifetime of production. It begins when a bug is found and ends when a bug is closed after detection and making sure that reproduction does not occurred. Defect life cycle is related to bug found during test process.

What is the difference between functional and non-functional testing?

|  |  |
| --- | --- |
| Functional requirements | Non-functional requirements |
| Product – features | Product – properties |
| User – requirements | User – expectations |

A defect which could have been removed during the initial stage is removed in a later stage.

How does this affect the cost? – it is important to detect and analyze defect in the early testing process, because if process of testing continues with addressing the defect or bugs it could remain very costly in the later stages of deployment.

What do you mean by regression and confirmation testing?

|  |  |
| --- | --- |
| Regression testing | Confirmation testing |
| To check if code changes do not affect the existing functionality | To make sure that failed tests cases are passing in a new build process |
| After code if modified, implemented for new features | All bugs are fixed by developers |
| It applies to passed tests only | It applies to failed tests only |
| It parallels with confirmation testing | It is done before regression testing |

What do you mean by boundary value analysis? Time and budget do not permit for exhausting test of each of the data sets. Especially when there is many inputs. We need a technique that can test all scenarios – thus we can use equivalence partitioning and boundary value analysis to get it done.

When is RTM (requirement traceability matrix) done? - It's a document that is delivered once development/testing is completed, so it should be a living document. It essentially maps your requirements to your test cases so that you have traceability of your coverage as you test whatever is in development.

Day 1

Verification process – process, walkthroughs (static testing )

Validation – product oriented – actual testing (dynamic testing)

What is SDLC – software development life cycle

Phases of SDTC – 5/6

Incremental model agile

Day 2

Test strategy – what does it contain?

Test plan

Risk – based testing 3 steps

Assignment:

Test strategy , test plan for any e-commerce application

Functionality includes : login, home, cart, payment ,

Team – 10, 5, 3 testers.

Day 3

1. Write a test case for a given object/project/product
2. Assignment – test cases for inbox, logout

Day 4

Testing techniques – Dynamic techniques – ECP , BVA , DT

Decision table for given upload image case.

Consider a dialogue box which will ask the user to upload photo with certain , conditions like

1. You can upload only .jpg format image
2. File size less than 32kb
3. Resolution 137\*177

Day 5

Levels of testing

Different methods of testing

Types of testing

Assignment – functional and non functional test cases for a pen

Difference between ft and nft

Smoke and sanity test

Identify what type of NFR

-how many pages can use it for without obstruction

How comfortable it is to hold

How long can nib of the pen hold

Is the ink visible /legible on paper

NIB should be able to hold the pressure / stress while writing

Tip of the pen is not destroyed after writing continuously for few hours

Anyone should be able to use it

Front /back of page – ink is bloated / wet

Ink melted / frozen

FT, NFT for Amazon – Application

Day 6

Write the test steps for at least 10 of the FT amazon application

Day 7

Severity , priority – w examples

Bug life cycle

Assignment – write 5 p/s defects for amazon application