Manual Testing:

Software Testing

Overview of Functional Testing

STLC Life Cycle

Agile Methodology

Software testing: verify and validate applications quality to ensure it meets user requirements

The process of verifying and validating whether the given software or application is bug free or it meets requirements

Expected results are matched with the actual results

There are 2 steps

Verification – done by dev team it is a process where it includes views walk through and inspection of req and so on

Validation – It is a part of test team where it includes execution of software against requirements.

Functional testing

It is a type of software testing that verifies the functionality of a software system or application

What to test in functional testing?

* Basic Usability
* Mainline functions
* Accessibility
* Error Conditions

Functional testing examples:

Can users successfully log in to application once they provide legitimate credentials?

Does the payment gateway reject the input and display an error message when a user keys in an invalid credit card number?

Do inputs to the “Add New Record” screen successfully add and save a new record to the database?

Software Testing Models:

Waterfall

V model

Incremental

Iterative

Spiral

Agile etc.

Waterfall model – sequential process

Requirement analysis-development-testing-release the product

One phase can be started after completing the previous step

We can’t make changes in the middle

Software testing life cycle:

Req analysis->test planning->test design->environment setup->test execution->test closure

Req analysis -> review srdc(software requirement documentation)

Test planning ->the phase where u will be identifying testing scopes, create test plan(how many test cases, how many scenarios we can derive)

Test design- creation of test cases in tool or excel whatever you have written other person able to execute it should be in detailed way.

Environment setup- test the application decide the place where we have to test it. They will create separate qa environment and push into it

Test execution-running test case against the developer who has developed

Test closure – overall testing process test summary reports

Agile Model:

Agile Development Methodology:

Brainstorm(Requirement Analysis)->Design(Design Document & Prototype)->Development(Iterations, Demo & Feedback)->Quality Assurance(Iterations, Demo & Feedback)->Deployment(Production & Technical support)->Brainstrom(requirement analysis)

Agile Ceremonies:

->The sprint planning team

->The daily stand-up meeting

->The sprint review meeting

->The sprint retrospective meeting

Agile Testing:

Type of software testing that follows the principles of agile software development to test the software application

Agile Process Testing Steps:

Impact Assessment->Agile Testing Planning->Release Readiness->Daily Scrums->Test Agility Review

Types of Testing:

Different Types of Testing

Purpose and Scope of Testing

Testing Performed By and On.

Unit Testing:

Refers to the practice of testing individual units or components of software independently to validate their correctness and functionality.

Purpose: The primary purpose of unit testing is to verify that each unit of code(such as functions, methods, or classes) works as intended in isolation. It helps identify defects early in the development process and ensures the reliability and quality of the codebase

Scope: Unit testing focuses on testing small, discrete units of code without considering their interactions with other parts of the system. Each unit is tested independently to ensure that it produces the expected output for different inputs.

Testing performed By and on: Usually by developers on dev env

Smoke Testing:

Is type of testing to quickly verify the stability of the build after each iteration or sprint or deployment of the user story by dev.

Purpose – the primary goal of smoke testing is to verify that the build is stable enough for more comprehensive testing