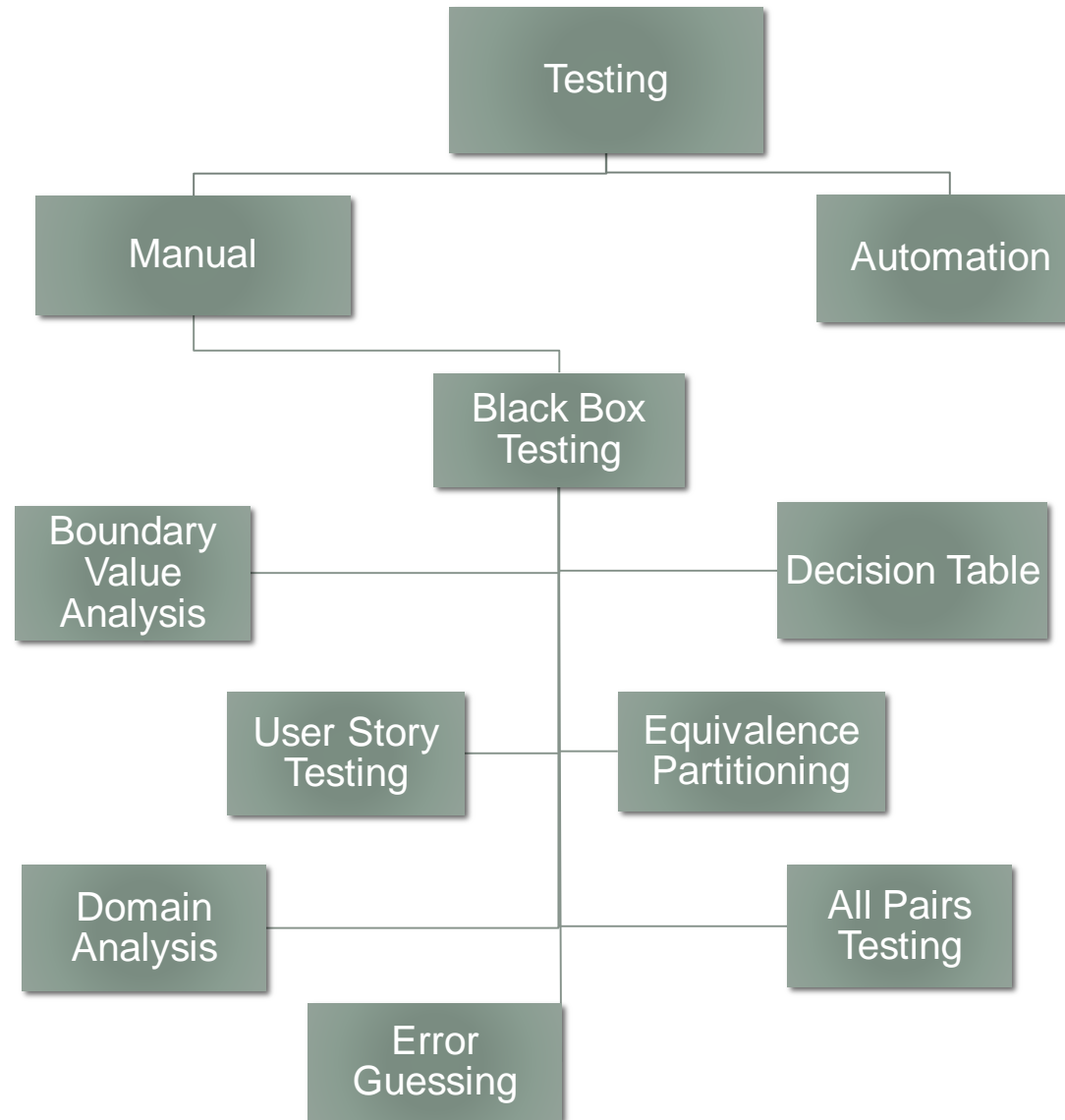




TEST CASE WRITING

Testing Techniques



Black-box Testing

It is a method of software testing that examines the functionality of an application without peering into its internal structures or workings. This method of test can be applied virtually to every level of software testing: unit, integration, system and acceptance.

Boundary Value Analysis: is a technique in which tests are designed to include representatives of boundary values in a range

Decision Table: are a concise visual representation for specifying which actions to perform depending on given conditions.

User Story Testing: is an informal, natural language description of one or more features of a software system.

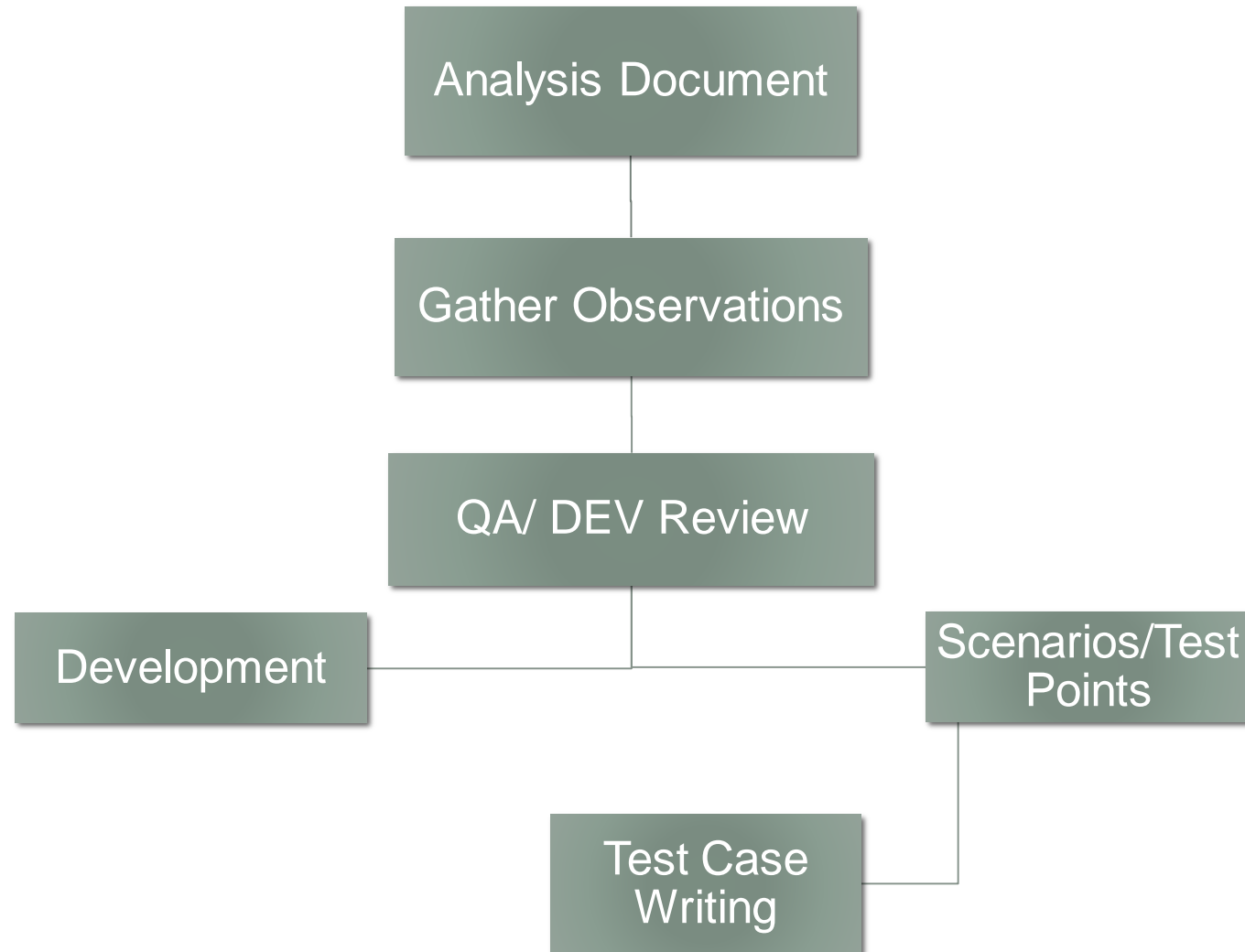
Equivalence Partitioning: technique that divides the input data of a software unit into partitions of equivalent data from which test cases can be derived.

Domain Analysis: is the process of analyzing related software systems in a domain to find their common and variable parts.

All Pairs Testing: is a combinatorial method of testing that, for each *pair* of input parameters to a system, test all possible discrete combinations of those parameters.

Error Guessing: is a test method in which test cases used to find bugs in programs are established based on experience in prior testing

Pre- Requisites of Test Case Writing



Test Case Writing

- Test case scenario are written on the basis of the reviewed document provided by analysis for the respective CR.
- First Test Points are gathered and estimated scenario writing time is calculated.
- Then test case writing activity starts for the respective CR.
- The Standard format for writing scenarios is:
 - i. Work Flow
 - ii. Summary
 - iii. Steps

Test Case Format

Work Flow is the path where the scenario is to be executed. E.g. in CureMD application a work flow to go to add patient screen is ***Patent> Advanced> Add.***

Summary is the detail of the test case. What you want to test in the given work flow. E.g. *The system allows the user to access the add patient screen.*

Steps are the detailed version of the work flow. E.g. the steps for adding a patient would be:

1. Click on patients tab.
2. Select advanced tab.
3. Click on add icon.
4. Fill the form and click save.

Quality Center QC

- QC tool is used for recording all the testing activities.
- Test cases are written in QC Test Plan.
- Create a folder with the name of your CR work order under year> release> team.
- Test case scenario nodes are created in the respective CR Year> Release> Team> work order.
- Test cases are written in the standard format in the respective folder.
- Test cases are then imported to QC Test Lab where they are executed and then the bugs are logged.

Add node

Add Test scenario

Scenarios are written in Test Plan

In respective year> release> Team> we create scenario node containing work order and title of CR

Scenario nodes are added here with their respective codes.

Details Design Steps Test Script Attachments Req Coverage Linked Defects

Step Name	Description	Expected	Scenario Type	Sub	Scenario Status	Int
Step 1	Positive Scenarios:					
	Work Flow: Reports-> Health Department->Medicaid Patient Volume	System should highlight the action button on which the user's mouse is hovering over	Functionality		Active	
	Summary: Verify that the system highlights the action button on which the user's mouse is hovering over					
	Steps: 1) Go to Reports module 2) Expand Health Department 3) Navigate to Medicaid Patient volume report					
	Work Flow: Reports-> Health Department->Medicaid Patient Volume	System should have the action buttons on the page enabled by default	Functionality		Active	
	Summary: Verify that the system have the action buttons enabled by default					
	Steps: 1) Go to Reports module 2) Expand Health Department 3) Navigate to Medicaid Patient volume report					

Activate Windows
Go to Settings to activate Windows.

Test Case Writing in QC

- Specify work flow, Summary and Steps in each test case in 'Description' column in 'QC' e.g. if there are multiple work flows for one test case then each test case has to be written multiple times with different work flows each time. Work flow is necessary to be entered in each test case.
- Expected results should be specified in 'Expected' column in 'QC' i.e. it should define the expected results of the test case. Expected results can only be skipped if QA manager/senior resource comments are mentioned in description area.
- Attach screen shot against each test case if required

Details

Design Steps

Test Script

Attachments

Req Coverage

Linked Defects

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	Step Name	Description	Expected	Scenario Type	Sub	Scenario Status	Integration
	Step 1	<p>Work Flow: Reports-> Health Department</p> <p>Summary: Verify that the system displays the Medicaid Patient Volume node in the health department bucket</p> <p>Steps: 1) Go to Reports module 2) Expand Health Department</p>	System should display the Medicaid Patient Volume node in the health department bucket	Business Requirement		Active	
	Step 2	<p>Work Flow: Reports-> Health Department-> Medicaid Patient Volume</p>	System should allow the user to access the page	Business Requirement		Active	

Following Scenario folder names should be added when creating nodes in QC:

000-Pre-Requisites

001-Acceptance

002-Functional

003-Non Functional

004-GUI

005-Field Validation

006-Regression

007-Security

008-Performance

009-IIS Logs

Types of Scenarios:

- **Pre-Requisites:** It Includes all the scenarios in which we have to perform any functionality before accessing the area which is under test.
- **Acceptance:** These scenarios covers all the business rules.
- **Functional:** Functional test scenarios cover what the system does. QA covers all the positive and negative scenarios in functional testing.
- **Non Functional:** These scenarios specify specifies criteria that can be used to judge the operation of a system in particular conditions, rather than specific behaviors
- **GUI:** It includes all the scenarios to verify the GUI of the system.
- **Field Validation:** All the possible forms of inputs are tested for each input field.

Types of Scenarios:

- **Regression:** QA writes test scenarios for regression testing which should include the proper impact analysis; this type of testing covers the out of box criteria's.
- **Security:** Ensure that system protects data and maintains functionality and is not throwing any exception and errors on servers I.e. for unauthorized access etc.
- **Performance:** How a system performs in terms of responsiveness and stability under a particular workload
- **IIS Logs:** In this tester is ensuring that system is not throwing any exception and errors on servers by checking 'IIS Logs'. Scenarios i.e. 500 crashing, Page size and 404 Page not found should be written to cover this test type.

Post Test Case Writing

- Write the Test scenarios which are not applicable and configure items (ASP common pages) on the description of the respective CR test plan folder.
- Get your test cases reviewed by lead and get a review stamp.
- Forward the test cases exported in an excel sheet to DEV after lead approval.