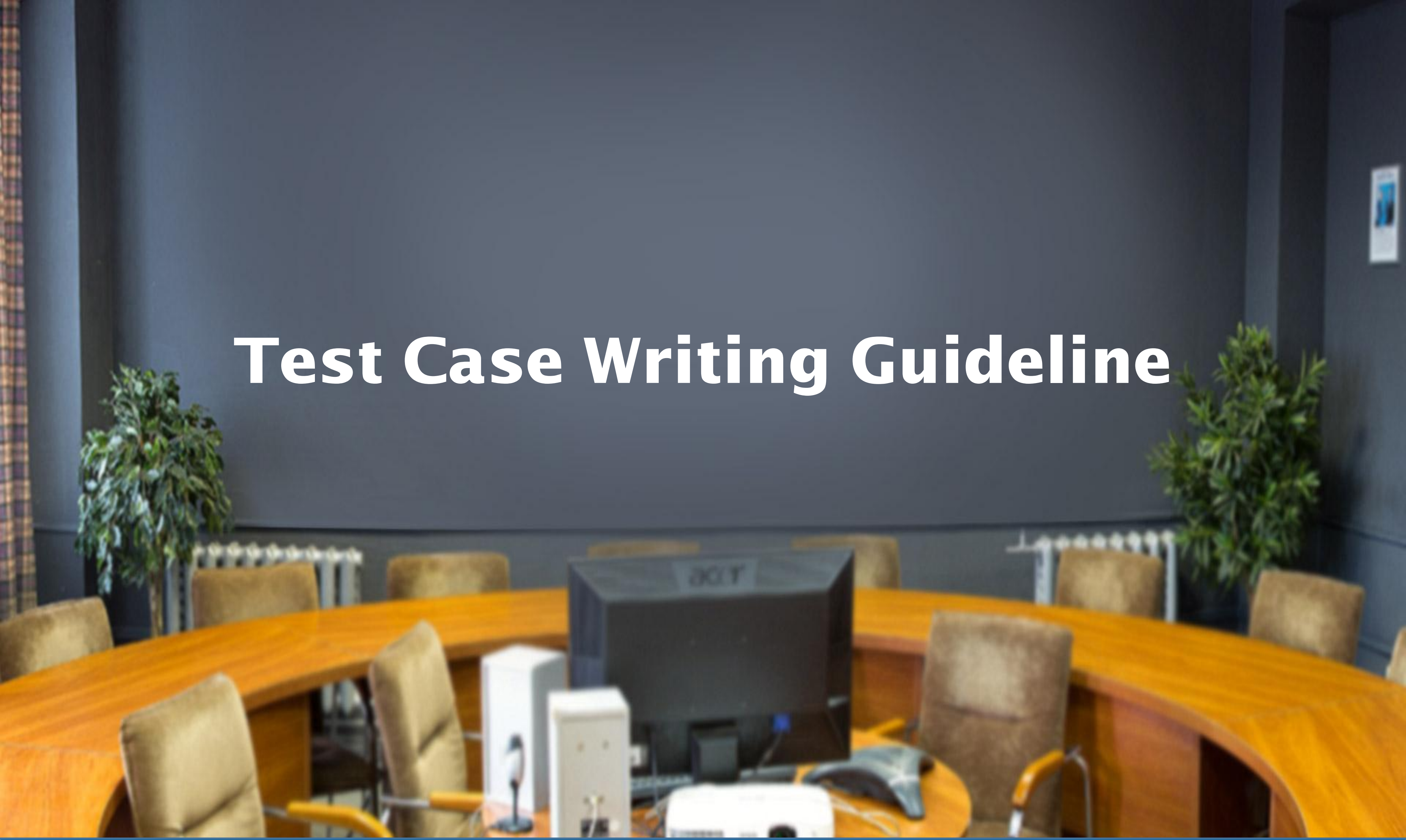

Test Case Writing Guideline

Coherent Solutions

Better Teams. Better Results.

Test case

is a set of input values, execution pre-conditions, expected results and execution post-conditions, developed for a particular objective or test condition, such as to exercise a particular program path or to verify compliance with a specific requirement.

Main Rule

Never ever
start to write Test Cases
from
writing Test Cases!

WHY?

Instruction

Find out business need of the functionality

Read and comprehend the requirements

Read again, analyze, divide into small modules

Within every small module:

- figure out parameters, values
- found out dependencies
- create Tables, Diagrams, Graphics
- make check list
- add some interesting ideas of verifications

Finally! Start directly writing (describing) Test Cases

Conclusion

So, **Test Cases** are

<u>the result</u>

of the **analysis** and

all thoughts

Goals of Test Case Development

- Verify compliance with a specific requirement
- Cover gaps in requirements and clarification
- Show an application functionality in details
- Show how requirements are tested
- Identify functionalities which were tested or not
- Store testing data
- Regression testing


Features of a Good Test Case

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Reusable	• Can be reused if necessary.
Maintainable	• Easy to update.

When to start a TC creation

?

When to start a TC creation

A specification should be clear to test:

- How it will **look**
- How it will **function**

Source of Test Cases

?

Source of Test Cases

- Specification – main source.
- Product is NOT a source!!!

Test Case Structure

Structure of Test Case

- Test Case ID (unique)*
- Title*
- Pre-condition/Prerequisites
- User roles
- Steps*
- Test data
- Expected result*
- Status*
- Comment*

Title of Test Cases

- Add “Component/Area” to group test cases.
- Use keywords to make it specific.
- Avoid "correctly", "properly“ and "as designed“.

Pre-condition/Prerequisites

- Test setup (settings, entities, users).
- Describe conditions which needs to fulfill before executing the test case.

Test Data Variations

- No data.
- Valid data.
- Invalid data.
- Illegal data format.
- Boundary Condition Data set.
- Equivalence Partition Data Set.
- Decision Table Data Set.
- State Transition Test Data Set.
- Pairwise Testing.
- Use Case Test Data.

Test Case Store

- Test Management Tool (TestRail, Zephyr, AzDO and etc.)
- Google Sheets (not secure except if it has his own account)
- SharePoint
- Excel

Language

- Write in simple and easy to understand language
- Use active voice: Do this, do that
- Use Present Simple
- Use “should” in expected results (or Present Simple)
- Use exact and consistent names (of forms, fields, etc)

Tips for writing good test cases

- Figure out all features of application prior to design the test cases
- Find out the weaker and stronger areas of the application under test
- Divide application in small modules
- If in doubt about scope of the testing – ask developers
- Think from user's perspectives
- Concentrate on real life scenarios
- Check how system behaves in the normal & abnormal conditions

Execution of Test Cases

- Set a status:
  - Passed
  - In Progress
  - Failed
  - Not tested
  - Not Applicable
  - Blocked
- Add comments
- Add attachments
- Link defects

Example

Feature: CSD1584 - Consumer move debit card notification

Test Case Title: 143035 - CSD1584.10 - Add Tooltip for email notification with information about dynamic variables

Test Case Objective: Successful validation that new tooltip for 'Consumer Move Debit Card Notification' is added:
- Employer Level setting
- Admin Level setting

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Test Setup and Pre-Steps:
1. Use TPA with the following:
- TPA Setup > Profile > Plan Templates > HSA Plan: enabled
- TPA Setup > Profile > HSA Settings > Allow HSA to be moved by the administrator? = Yes
- TPA Setup > Debit Card > 'Benny - Debit Card Settings' page: settings are set up

Data set

1. Testir
2.

Test Case Status by Environment:

Step #	Navigation/Steps	Expected Results	P
1	Navigate to the Administrator Portal > **Setup Tab** > Manage Consumer Notifications page > Notifications Defaults section > find 'HSA Consumer Move Debit Card Notification'	'HSA Consumer Move Debit Card Notification' is displayed with tooltip	Passed
2	Verify blue icon	Blue icon is displayed (the same as for other tooltips)	Passed
3	Hover mouse cursor on the blue icon	Tooltip is opened	Passed
4	Press Esc on the keyboard	Tooltip is NOT closed (the same as for other tooltips)	Passed
5	Click on the 'X' tooltip button	Tooltip is closed	Passed
6	Open the tooltip again (clicking on the blue icon)	Tooltip is opened	Passed
7	Verify the header of the tooltip	Header = 'HSA Consumer Move Debit Card Notification'	Passed
8	Verify the content of the tooltip	You can include dynamic data in the email custom text and email custom subject by adding specific variables that represent a field. The variables will then be replaced with the value of the corresponding field when the email custom text is displayed. The following variables can be included: [Account Acronym] = the name of the account specified for the custodian. [DEBIT_CARD_DISPLAY_NAME] = debit card display name (is supported only for the email custom text). [MASKED_DEBIT_CARD_NUMBER] = masked debit card number with last 4 digits: x7777 (is supported only for the email custom text). All of the variables are case sensitive and must match exactly in the email custom text and email custom subject in order for them to display the dynamic data.	Passed
9	Navigate to the Administrator Portal > **Employer Tab** > Manage Consumer Notifications page > General Settings section > find 'HSA Consumer Move Debit Card Notification'	'Consumer Move Debit Card Notification' is displayed with tooltip	Passed
10	Verify blue icon	Blue icon is displayed (the same as for other tooltips)	Passed
11	Hover mouse cursor on the blue icon	Tooltip is opened	Passed
12	Press Esc on the keyboard	Tooltip is NOT closed (the same as for other tooltips)	Passed
13	Click on the 'X' tooltip button	Tooltip is closed	Passed
14	Open the tooltip again (clicking on the blue icon)	Tooltip is opened	Passed

... TC5 | Table_5 | Table_5-QA | TC6.1 | Table_6.1 | TC6.2 | TC7 | Table_7 | Table_7-QA | TC8.1 | TC8.2 | TC09 | Table_9 | Table_9-QA | TC10 | TC11 | Table_11

Example

	Test Case Status by Environment:			
8	**Step #**	**Navigation/Steps**	**Expected Results**	
9	1	Navigate to the Administrator Portal > Setup Tab > Manage Fees page	'Manage Administrator Fee Defaults' page is displayed	Passed
10	2	In the 'Fee Collection Schedule Settings' section, click Update	'Set Up Fee Collection Schedule' page is displayed	Passed
11	3	Set 'Fee Apply Date:' to tomorrow's date	Date is set up	Passed
12	4	Set 'Fee Collection Date:' to tomorrow's date	Date is set up	Passed
13	5	Click on the Submit button	The page is closed without errors. Fee Collection Schedule is updated successfully	Passed
14	6	Navigate to the Administrator Portal > Employer **(Employer#1)** Tab > Manage Employer Fees page	'Manage Employer Fees' page is displayed	Passed
15	7	In the 'Fee Collection Schedule Settings' section, verify that fee's been set up: Status = Enabled Next Fee Collection Date = tomorrow's date	Fee has been set up, values are displayed	Passed
16	8	In the '**Minimum Employer Administrative Fees**' section, click on the Enable Fee link to make it enabled	'Set Up Fee' page is displayed	Passed
17	9	Click Submit button	Minimum Employer Administrative Fees becomes enabled for the Employer#2	Passed
18	10	Wait for the next day: navigate to the Administrator Portal > Employer Tab **(Employer#1)** > Manage Fee Transactions page	'Manage Fee Transactions' page is displayed	Passed
19	11	Set filter: **Select View dropdown:** Group Billing **Tab:** Applied Fees	The following fee transaction is displayed: **Created Date:** today's date **Fee Applied To:** Employer#1 **Applied Date:** today's date **Fee Paid For:** empty **Collection Date:** today's date **Fee Type:** fee name **Plan:** empty **Amount:** appropriate (Minimum Employer Fee Amount) **Billing Period:** date period	Passed
20	12	Navigate to the Administrator Portal > Employer **(Employer#2)** Tab > Manage Employer Fees page	'Manage Employer Fees' page is displayed	Passed
	13	In the '**Minimum Employer Administrative Fees**' section, click on	'Set Up Fee' page is displayed	Passed

Scenarios | Coverage | Progress | Data Prep | TC1 | Table_1-DEV | Table_1-QA | TC2 | TC3 | TC4

Example

4 **Test Case Title:** 157756.01 - Remove Enhanced IDV note from displaying on the Manage Consumer Notes page

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5 **Test Case Objective:** Successful validation that Enhanced IDV note is not displayed any more on the Manage Consumer Notes page of Administrator Portal

6 **Test Setup and Pre-Steps:**

1. Use Employers with EIDV functionality is On/Off:
 -- Administrator Portal > Employer Tab > Manage Administrative Settings page > Employer Rules section > Enhanced IDV enabled? = Yes (can be changed via script only)
 -- Enhanced IDV Automated HSA Account Closure enabled? = No
 -- Ideology name is setup in db
 -- Mid-Year HSA Open-ended plan is allowed for enrollment from Consumer Portal (Plan#1)
Admin Portal > Setup Tab > Manage Custom Pages page > Administrator Portal section > Customer Support Summary > Update:
 -- Allow Customer Support Summary on Administrator Portal: Yes
 -- Include Sections: 'Consumer Notes' should be checked

Data set
1.

7 **Test Case Status by Environment:**

Row	Step #	Navigation/Steps	Expected Results	P
9	1	Navigate to the Consumer Portal (**Consumer#1**) > click on 'Enroll in HSA' I Want To button	HSA enrollment process is initiated	Passed
10	2	Complete HSA enrollment, Consumer#1 should failed Enhanced IDV verification check	HSA enrollment process is completed without errors	Passed
11	3	Navigate to the Admin Portal > Data Tab > Process Enhanced IDV Rejections page	Process Enhanced IDV Rejections page is opened	Passed
12	4	Find **Consumer#1** and click on his **Close Account** link	'Close Information' popup is opened	Passed
13	5	Fill in *Note, Closure reason* fields and click Close button	HSA Account is initiated to close	Passed
14	6	Navigate to the Admin Portal > Consumer Tab > Manage HSA > Account Notes section	The following two EIDV notes are displayed: 1) HSA Account Closure by Enhanced IDV Validation: *Custom Note* 2) Closure via Administrator Portal	Passed
15	7	Navigate to the Admin Portal > Consumer Tab > Manage consumer notes page > CONSUMER NOTES section	The following EIDV note is NOT displayed: HSA Account Closure by Enhanced IDV Validation: *Custom Note*	Passed
16	8	Navigate to the Admin Portal > Consumer Tab > Customer Support Summary Page (click on *View Client Customer Support Summary* link to reach) > CONSUMER NOTES block	The following EIDV note is NOT displayed: HSA Account Closure by Enhanced IDV Validation: *Custom Note*	Passed
	9	Navigate to the Admin Portal > Consumer (Consumer#1) Tab > Manage consumer notes page > CONSUMER NOTES section	The following EIDV note is NOT displayed: HSA Account Closure by Enhanced IDV Validation: Custom Note	Passed

TC1 TC2 TC3

COHERENT
SOLUTIONS