- # UNIT TESTING FRAMEWORK for NetSuite

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Introduction

- Automated testing provides a solution to the manual testing process. Instead of filling out that form one more time and hitting submit to see if the client/server-side validations trigger as expected, we can instruct software to perform this test for us. The advantages are obvious: given a convenient way to run the automated test we can test in numerous environments with a single effort, we can rerun the test at any later stage, and the test may even run on some schedule that requires no manual interaction whatsoever.

- A unit test is a piece of code that tests a piece of production code. It does so by setting up one or a few more objects in a known state, exercising them (e.g., calling a method), and then inspecting the result, comparing it to the expected outcome.

Needs/Problems

- Automate the unit testing process in NetSuite which leads to less hassle while testing and delivery and knocks off large phases of manual testing and doing it again and again in different environments.

Goals/Objectives

- The problem that we are trying to fix in this particular document is to introduce a framework for automated unit testing in NetSuite which helps us ship unit test cases and run them across environments.

** The developer should be able to write unit test-cases in a specified format.

** The framework should be able to run the tests recording the output.

** The output should be displayed or emailed to end users after running the tests.

Procedures/Scope of Work

- The framework as desired above should be able to run and execute these test unit cases
- To do so we generate a test writing template attached below which utilizes the common AMD pattern used throughout SuiteScript 2.0. The whole testing process can be divided into 2 processes:

a) Test Creation:

```
define(['N/file','N/record'], function(file,record){
    return {
        //function to generate any data and return the ids
```

```
            generateData : function(){
                return [];//this can be a json also
            },
            //The obj will be the set of ids returned by generateData
            assertData : function(obj){
                return true;//This function must return a true or false
            },
          //The obj will be the set of ids returned by generateData.Once asserted the data can be deleted here
            deleteData : function(obj){
            }
        };
    });
```

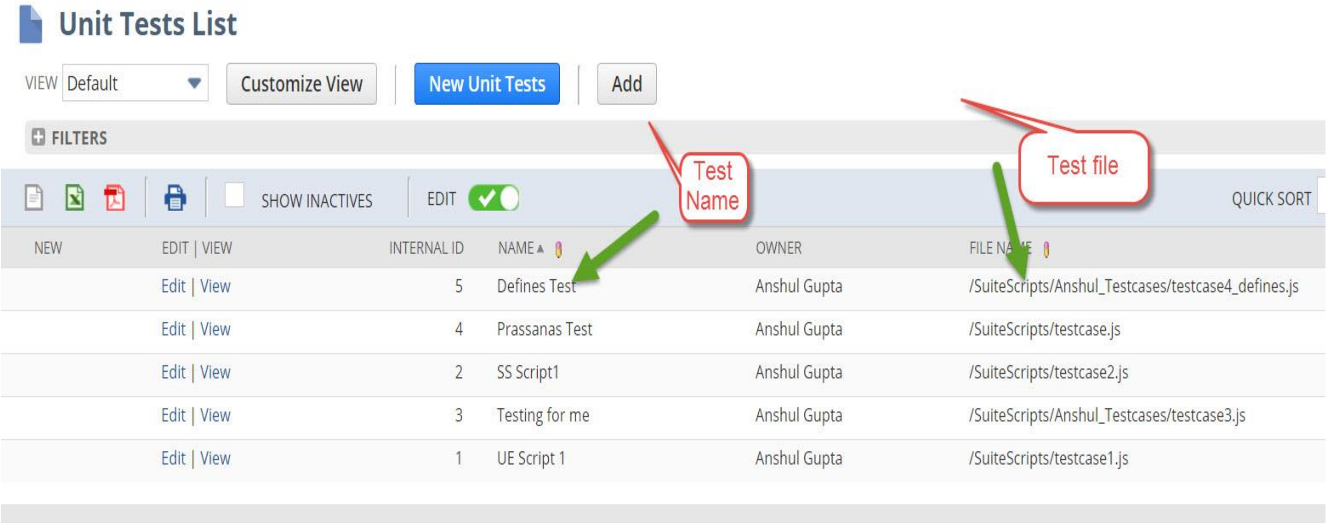
** The above code sample introduces a test template that the end user has to submit in a file and upload it to NetSuite.

** Once done and uploaded the developer needs to create a mapping in the custom record.

- Unit Tests as shown below:

** Enter the name of the Test.

** Enter the name of the file that was uploaded to NetSuite.



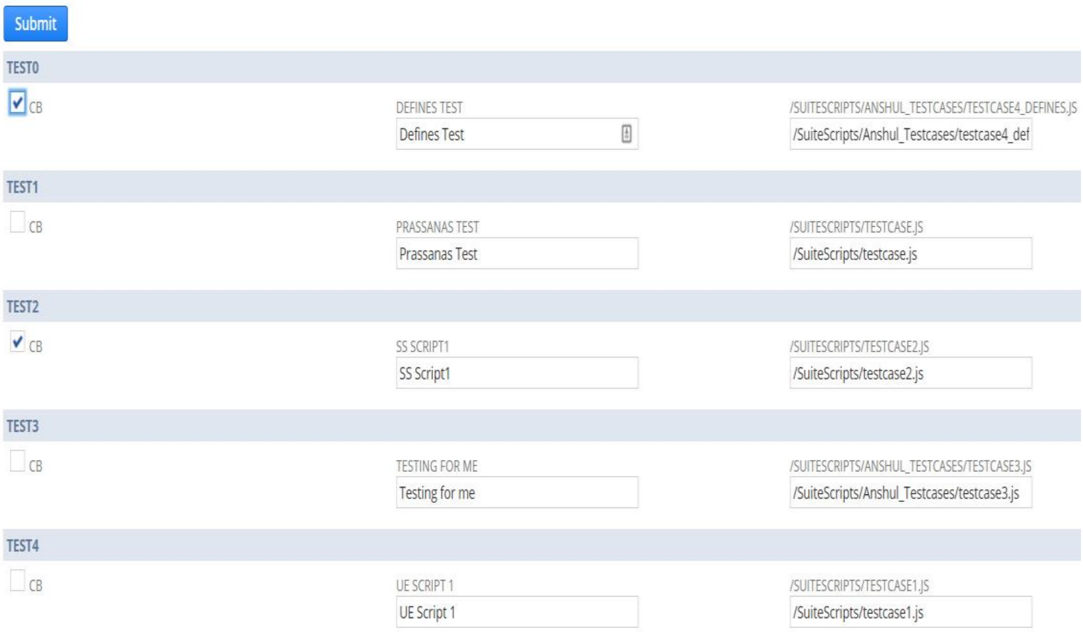
NEW	EDIT | VIEW	INTERNAL ID	NAME ▲	OWNER	FILE NA E
	Edit | View	5	Defines Test	Anshul Gupta	/SuiteScripts/Anshul_Testcases/testcase4_defines.js
	Edit | View	4	Prassanas Test	Anshul Gupta	/SuiteScripts/testcase.js
	Edit | View	2	SS Script1	Anshul Gupta	/SuiteScripts/testcase2.js
	Edit | View	3	Testing for me	Anshul Gupta	/SuiteScripts/Anshul_Testcases/testcase3.js
	Edit | View	1	UE Script 1	Anshul Gupta	/SuiteScripts/testcase1.js

b) Test Execution:

** To execute the test you need to navigate to the Suitelet.

** This will parse out the test cases entered in the above UnitTests record.

** Select the tests that have to be executed and click submit.



TEST0

☑ CB

DEFINES TEST
Defines Test

/SUITESCRIPTS/ANSHUL_TESTCASES/TESTCASE4_DEFINES.JS
/SuiteScripts/Anshul_Testcases/testcase4_def

TEST1

□ CB

PRASSANAS TEST
Prassanas Test

/SUITESCRIPTS/TESTCASE.JS
/SuiteScripts/testcase.js

TEST2

☑ CB

SS SCRIPT1
SS Script1

/SUITESCRIPTS/TESTCASE2.JS
/SuiteScripts/testcase2.js

TEST3

□ CB

TESTING FOR ME
Testing for me

/SUITESCRIPTS/ANSHUL_TESTCASES/TESTCASE3.JS
/SuiteScripts/Anshul_Testcases/testcase3.js

TEST4

□ CB

UE SCRIPT 1
UE Script 1

/SUITESCRIPTS/TESTCASE1.JS
/SuiteScripts/testcase1.js

testing.zip