



IMPLEMENTATION ON AUTOMATION QUALITY TESTING

Sushil¹, Mrs. Pooja²

¹Research Scholar, Deptt. of CSE, RN Engineering College, Rohtak,

²Assistant Professor, Deptt. of CSE, RN Engineering College, Rohtak

Abstract: Manual sample is process of manually sample software for defects. It desire a checker to play role of an end user & use ultimate of all features of supplication to ensure correct behavior. To ensure integrity of testing, tester often follows a written test plan that model m through a piece of important check cases. More type of application could be tested manually but automated sample is recommended only for stable systems & is mostly used for regression testing.

Keyword: features, automated, tested, manually, completeness, sample, integrity,

[1] INTRODUCTION

Software Testing

Software unit is a courses used to classify correctness, integrity, and quality of developed computer software. It includes a set of activities conducted within intent of finding errors in software so that it could be corrected before product is released to end users. In easy words, software example is an motion to test whether actual results match expected results & to ensure that software system is defect free.

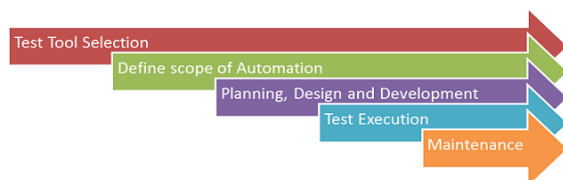


Fig: 1 automation process

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Manual Testing

Manual sample is process of manually sample software for defects. It desires a checker to play role of an end user & use ultimate of all features of supplication to ensure correct behavior.

[2]COMPARISO BETWEEN MANUAL SAMPLE & AUTOMATED TESTING

Test automation might be able to reduce or eliminate cost of actual testing. A computer could follow a rote sequence of steps more quickly than a person, & it could run tests overnight to present results in morning. However, labor that is saved in actual sample must be spent instead authoring check program.

[3]LITRETURE REVIEW



HISTORICAL BACKGROUND

For quality of test, designing of check cases are important. A large number of check methods have been developed to support developer when choosing appropriate check data.

Hitesh Tabular & Bichitra Kalita (2011) wrote research paper titled”

In this research he started that giving an overview of automatic check data generation. Basic objective of this paper is to acquire basic theory related to automated tester folder generation research.

Shaveta, Sachin Kumar, Nitika, Snehlata (2012) Wrote Research Paper Titled” Comparative Study of Automated Sample Tools

In this research he started that sample automation tools enables developers & testers to easily automate entire process of sample in software development.

[4] PROPOSED WORK

Software engineering Automated Software Testing for Matlab Software testing could improve software quality. To check scientists, effectively, and engineers could identify how to write and run check , convert appropriate test cases, determine expected outputs, & correctly handle floating-point arithmetic. Using Matlab

mlUnit automated testing framework, scientists & engineers using Matlab could make software testing an integrated part of their software development routine.

[5] IMPLEMENTATION

Setting of mlunit

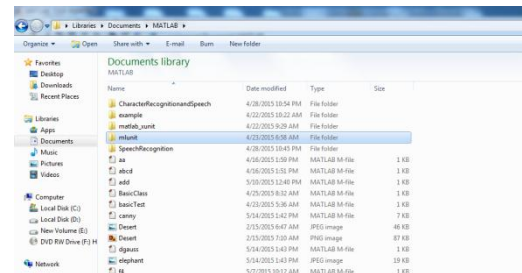


Fig: 2 download ml unit

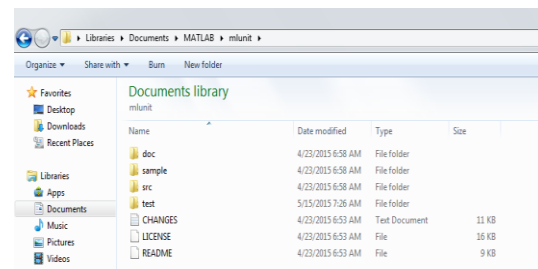


Fig: 3 extract mlunit folder

Where we place all tests

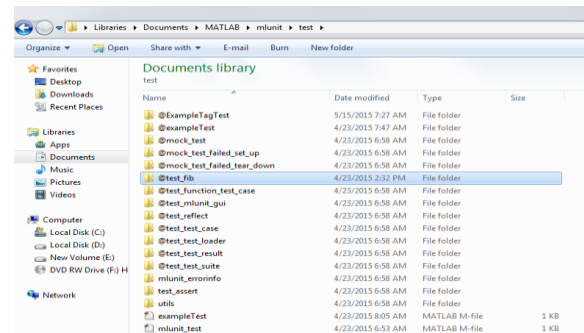


Fig: 4 check directory

Step 3.2: Create test_fib.m file in this folder



```

1 function self = test_fib(name)
2 %test_fib.m test function
3
4 % Class Info / Example
5 %-----
6 % The class test_fib is the fixture for all tests of the test-suite
7 % Fixtures. The constructor shall not be called directly, but through
8 % a test runner.
9
10 % This Software and all associated files are released under the
11 % GNU General Public License (GPL), see LICENSE for details.
12
13 % Author: Thomas Dohmke <thomas@dohmke.de> $
14 % Id: test_fib.m 12 2006-05-26 16:11:372 thomi $
15
16 - test_case(name);
17 - self = classconstruct('test_fib', self);
18

```

fig :5 creation of fib.m file

Step 3.3: Now create another file check value.m

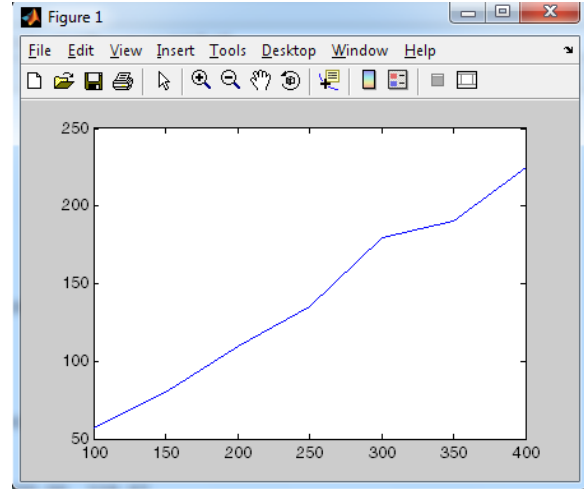


Fig: 8plotting for complexity level 1

```

1 function self = test_value(self)
2 %test_value tests different values of the fibonacci function (y = fib(x)).
3
4 % This Software and all associated files are released under the
5 % GNU General Public License (GPL), see LICENSE for details.
6
7 % Author: Thomas Dohmke <thomas@dohmke.de> $
8 % Id: test_value.m 15 2006-05-26 16:17:552 thomi $
9
10 - assert_equals(1, fib(1));
11 - assert_equals(1, fib(2));
12 - assert_equals(2, fib(3));
13 - assert_equals(3, fib(4));
14 - assert_equals(5, fib(5));
15 - assert_equals(8, fib(6));
16 - assert_equals(13, fib(7));
17 - assert_equals(21, fib(8));
18 - assert_equals(34, fib(9));
19 - assert_equals(55, fib(10));
20

```

Fig: 6 create another file check value

Step 3.4: Create test_null.m

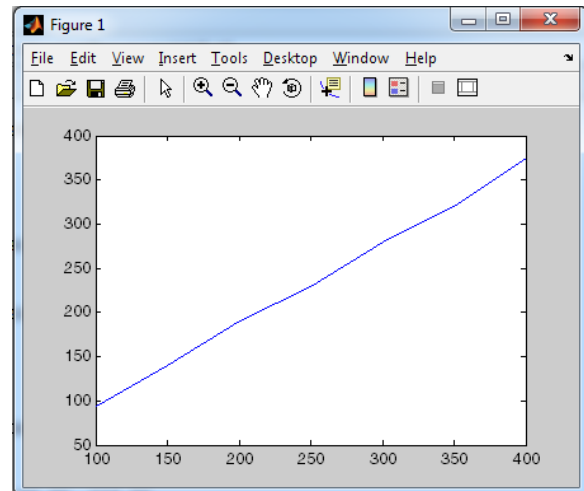


Fig: 9 plotting for complexity level 3

```

1 function self = test_null(self)
2 %test_null checks, whether the return value of fib(0) is 0.
3
4 % This Software and all associated files are released under the
5 % GNU General Public License (GPL), see LICENSE for details.
6
7 % Author: Thomas Dohmke <thomas@dohmke.de> $
8 % Id: test_null.m 14 2006-05-26 16:15:532 thomi $
9
10 - assert_equals(0, fib(0));

```

Fig : 7 create another file check value .m

[5] OUTPUT

Output for Simple check Case Using Functions

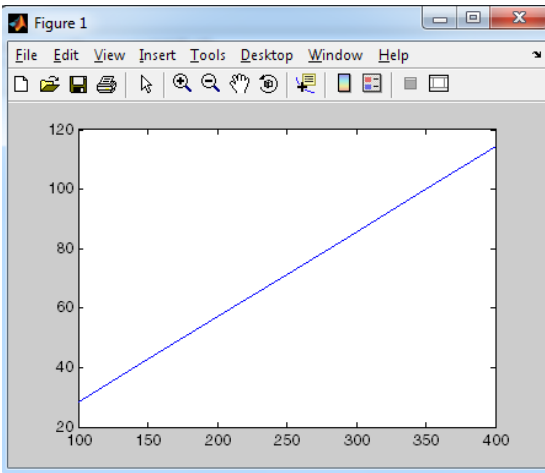


fig :10 plotting for complexity level 1

```

Editor - C:\Users\aa\Documents\MATLAB\mlunit\test\@test_fib\test_null.m
File Edit Text Go Cell Tools Debug Desktop Window Help
1 function self = test_null(self)
2 %test_null checks, whether the return value of fib(0) is 0.
3
4 % This Software and all associated files are released under the
5 % GNU General Public License (GPL), see LICENSE for details.
6 %
7 % $Author: Thomas Dohmke <thomas@dohmke.de> $
8 % $Id: test_null.m 14 2006-05-26 16:15:532 thomi $
9
10 assert_equals(0, fib(0));
  
```

Fig: 11 output of check null.m

[6] CONCLUSION

Automation sample is use of tools to execute check cases whereas manual sample requires human intervention for check execution. Within automotive area, very little upfront sample had been done. Within introduction of executable modeling tools such as ML section this upfront sample is more feasible.

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