**Problem Statement**

**To Simulate a Test Management/Reporting System to automate Unit testing and generate reports**

**Details:**

* The project should be able to run existing python scripts as test programs
* It should be able to store results in a .xml file
* The project should be able to generate a report in HTML format, using this file
* Intention is to automate testing, by running existing programs and presenting results to users, in readable format, such as HTML or any other.

Python Module:

**Design Approach**

* Simulate a Menu driven Main screen with following options

Title

1. Run Test Cases
2. List Test Runs
3. Shows Test Results
4. Generate a HTML test report
5. Exit

* The 1st option when used should run a list of python programs as test cases, requesting inputs from user for testing the program. These can be considered as pseudo test cases.

i.e Program to determine if input number is a prime number from(0 to 99) range, whether number is odd, whether input string contains required substring and such other programs. This in turn should create a .xml file with format as shown below

<testresult>

<testno1>Passed</testno1>

<testno2>Passed</testno2>

<testno3>Failed</testno3>

<testpassed>2</testpassed>

<testfailed>1</testfailed>

<testerror>0</testerror>

</testresult>

With filename as current date i.e **17-06-2016.xml** .(The last one created on particular date should overwrite existing one, with same date, created in a by name directory TestResults)

* The List option should list the names of all such test files created in Test Results directory

**06-06-2016.xml**

**07-06-2016.xml**

**09-06-2016.xml**

* The Show test result should display the contents of the test file, whose name is input by user. i.e **17-06-2016.xml** should show

Test Results 17-06-2016

Test File No.1 – Passed

Test File No.2 – Passed

Test File No.3 – Failed

Total Tests passed: 2

Total Tests failed:1

Total tests with errors:0

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* The Generate HTML option. Should generate a .html file i.e **24-04-2016.html** to display the same contents shown above.