

# CtrlAltElite Automated Testing Framework

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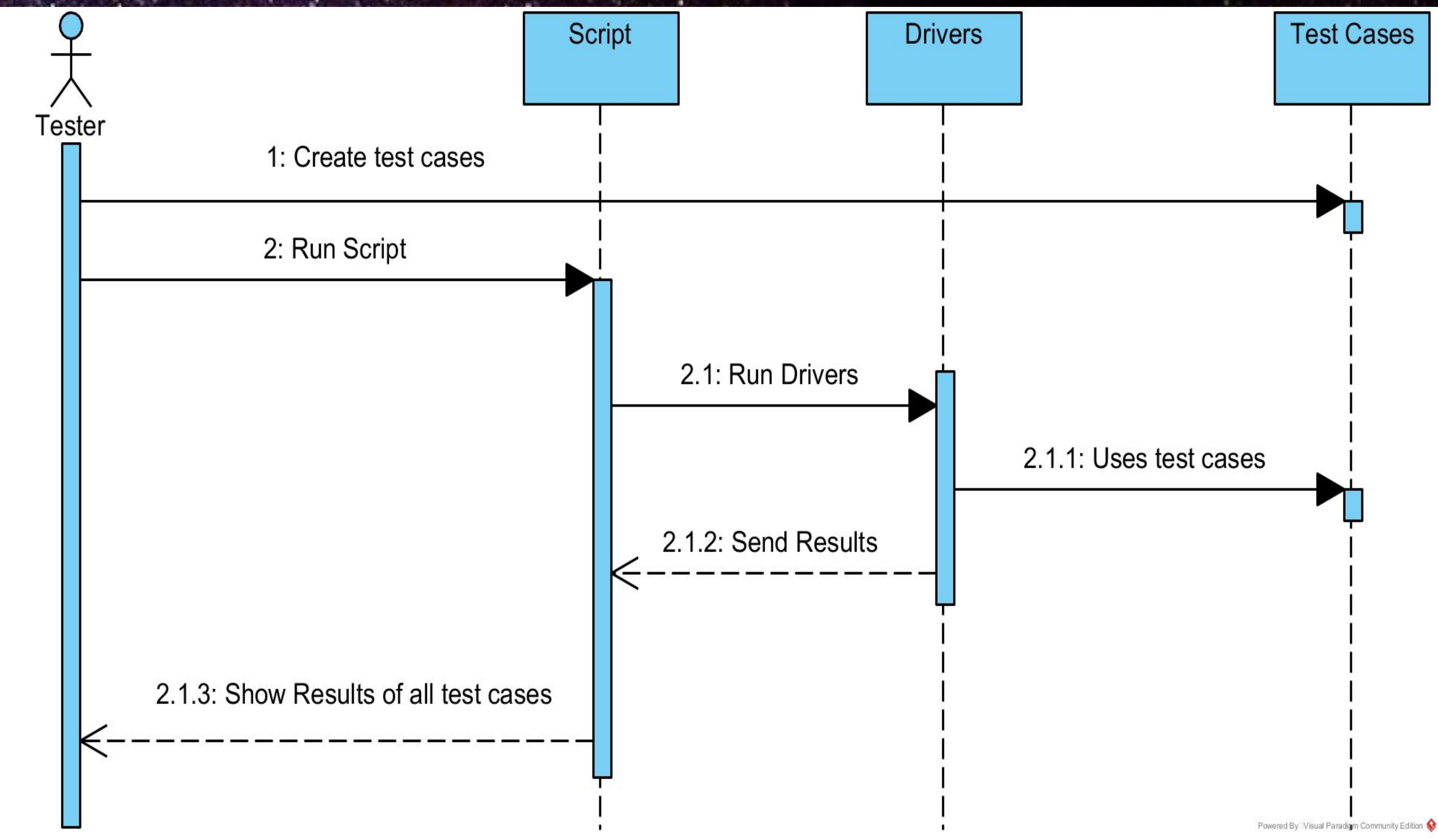
## Summary

The purpose of this project was to create an automated testing framework that runs on Linux. Our framework utilizes a bash script that reads test cases and produces results using drivers. The test results are then automatically displayed in an HTML document

## How to use the Framework

- Step 1:** Create test case(s) conforming to the test case template (refer to the testCaseTemplate.txt file in the docs directory).
- Step 2:** Execute runAllTests.sh on Linux terminal.
- Step 3:** Enjoy!

## Architecture



## Sample Test Cases

```
1
2
3 1.1
4 The ability to calculate the greatest common divisor between two integers
5 MathOps
6 gcd
7 TestAutomation.testCaseExecutables.GCDDriver
8 30
9 12
10 6
11
```

```
1
2
3 2.3
4 the ability to find the index of the largest number among given indices of an array
5 MathOps
6 argMax
7 TestAutomation.testCaseExecutables.ArgMaxDriver
8 [3 4 1 100 0 -50 80]
9 [6 3 4 1 2 0 5]
10 3
11
```

```
1
2
3 4.3
4 The ability to calculate the least common multiple between two integers
5 MathOps
6 lcm
7 TestAutomation.testCaseExecutables.LCMDriver
8 0
9 50
10 50
11
```

## TEST REPORT

This report was generated on: Wed Nov 20 13:18:18 EST 2019

Test Case	Requirement	Component	Method	Driver	Arguments	Oracle	Result	PASS/FAIL
1.1	The ability to calculate the greatest common divisor between two integers	MathOps	gcd	TestAutomation.testCaseExecutables.GCDDriver	30, 12	6	6	PASS
1.2	The ability to calculate the greatest common divisor between two integers	MathOps	gcd	TestAutomation.testCaseExecutables.GCDDriver	20, 20	20	20	PASS
1.3	The ability to calculate the greatest common divisor between two integers	MathOps	gcd	TestAutomation.testCaseExecutables.GCDDriver	0, 50	50	50	PASS
1.4	The ability to calculate the greatest common divisor between two integers	MathOps	gcd	TestAutomation.testCaseExecutables.GCDDriver	2147483647, 5	1	1	PASS
1.5	The ability to calculate the greatest common divisor between two integers	MathOps	gcd	TestAutomation.testCaseExecutables.GCDDriver	-10, 17	1	1	PASS
2.1	the ability to find the index of the largest number among given indices of an array	MathOps	argMax	TestAutomation.testCaseExecutables.ArgMaxDriver	[1 2 3 4 5], [0 1 2 3 4]	4	4	PASS
2.2	the ability to find the index of the largest number among given indices of an array	MathOps	argMax	TestAutomation.testCaseExecutables.ArgMaxDriver	[500 4 3 2 1 0], [0 1 2 3 4 5]	0	0	PASS
2.3	the ability to find the index of the largest number among given indices of an array	MathOps	argMax	TestAutomation.testCaseExecutables.ArgMaxDriver	[3 4 1 100 0 -50 80], [6 3 4 1 2 0 5]	3	3	PASS
2.4	the ability to find the index of the largest number among given indices of an array	MathOps	argMax	TestAutomation.testCaseExecutables.ArgMaxDriver	[15 16 17 18 19], []	ERROR	ERROR	PASS
2.5	the ability to find the index of the largest number among given indices of an array	MathOps	argMax	TestAutomation.testCaseExecutables.ArgMaxDriver	[-45 13 16 57 11], [4 0 1]	1	1	PASS
3.1	the ability to find the index of the smallest number among given indices of an array	MathOps	argMin	TestAutomation.testCaseExecutables.ArgMinDriver	[3 4 1 100 0 -50 80], [6 3 4 1 2 0 5]	5	5	PASS
3.2	the ability to find the index of the smallest number among given indices of an array	MathOps	argMin	TestAutomation.testCaseExecutables.ArgMinDriver	[-10000000 4 1 100 0 -50 80], [6 3 4 1 2 0 5]	0	0	PASS
3.3	the ability to find the index of the smallest number among given indices of an array	MathOps	argMin	TestAutomation.testCaseExecutables.ArgMinDriver	[-5 -4 -3 -2 -1], [0 1 2 3 4]	0	0	PASS
3.4	the ability to find the index of the smallest number among given indices of an array	MathOps	argMin	TestAutomation.testCaseExecutables.ArgMinDriver	[-1 -2 -3 -4 -5], [0 1 2 3 4]	4	4	PASS
3.5	the ability to find the index of the smallest number among given indices of an array	MathOps	argMin	TestAutomation.testCaseExecutables.ArgMinDriver	[3 4 1 100 0 -50 80], []	ERROR	ERROR	PASS
4.1	The ability to calculate the least common multiple between two integers	MathOps	lcm	TestAutomation.testCaseExecutables.LCMDriver	30, 12	60	60	PASS
4.2	The ability to calculate the least common multiple between two integers	MathOps	lcm	TestAutomation.testCaseExecutables.LCMDriver	20, 20	20	20	PASS
4.3	The ability to calculate the least common multiple between two integers	MathOps	lcm	TestAutomation.testCaseExecutables.LCMDriver	0, 50	50	0	FAIL
4.4	The ability to calculate the least common multiple between two integers	MathOps	lcm	TestAutomation.testCaseExecutables.LCMDriver	2147483647, -2147483647	2147483647	0	FAIL
4.5	The ability to calculate the least common multiple between two integers	MathOps	lcm	TestAutomation.testCaseExecutables.LCMDriver	-10, -1000	1000	1000	PASS