

**VIETNAM NATIONAL UNIVERSITY – HO CHI MINH CITY**  
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**FACULTY OF INFORMATION TECHNOLOGY**



**HOMEWORK 04**  
**TEST REPORT**  
**CALCULATOR SELENIUM**  
**LECTURER: LÂM QUANG VŨ**  
**SOFTWARE TESTING**

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# 1. General information

- Using selenium script and web driver to test the website (Basic Calculator – Selenium Object) :  
<https://testsheepnz.github.io/BasicCalculator.html?fbclid=IwAR0FZv41zYTJOTXZWQ6ERJn6dSmXazRMnvIH4PY2jT0h5XGQU1sk8z6twIQ>
- Language used: Python (version 3.9.5)
- Operating System: Window 11 64bit (Same as Window 10)
- About code setup and execute, please read the **Readme.txt** file in the source code directory which is submitted along with this test report
- Package used:
  - selenium: work with selenium script and driver (installed by **pip install selenium**)
  - csv: work with test case entry, csv file with a set of 60 test case for one build (no need to install)
  - time: make code flow sleep for a specific amount of time (no need to install)
- Browsers and drivers:
  - Google Chrome:
    - Version: 92.0.4515.107
    - Web driver: [Chrome Driver](#)
  - Firefox:
    - Version: 92.0.2
    - Web driver: [Gecko Driver](#)
  - Microsoft Edge:
    - Version: 92.0.902.62
    - Web driver: [Edge Driver](#)

## 2. Test cases and test results

### 2.1 Test cases

- There are 60 test cases for one build, the total test case for a browser to cover all the test case is 600 test cases imported from the **input.csv** file
- Using Python CSV to handle the data and test them with Basic Calculator Website

```

18127104.py  Readme.txt  result.csv  input.csv  result.txt
input.csv
1  ID,Build,First number,Operation,Second number,Integer only,Expected result
2  00-01,Prototype,1,Add,1,TRUE,2
3  00-02,Prototype,0.1,Add,0.2,FALSE,0.3
4  00-03,Prototype,a,Add,a,TRUE,NONE
5  00-04,Prototype,999,Add,a,TRUE,NONE
6  00-05,Prototype,10,Add,0.1,TRUE,10
7  00-06,Prototype,10,Add,0.1,FALSE,10.1
8  00-07,Prototype,0.2,Add,0.3,TRUE,0
9  00-08,Prototype,999999999,Add,999999999,TRUE,1999999998
10 00-09,Prototype,999999999,Add,0.1,TRUE,999999999
11 00-10,Prototype,999999999,Add,0.1,FALSE,999999999.1
12 00-11,Prototype,0.11111111,Add,0.11111111,FALSE,0.2222222

```

- Each browser has to perform 600 test cases for 10 build version of the calculator
- 1800 test cases would be performed during the process

## 2.2 Test results

- All the test status and result are logged simultaneously to two file **result.txt** and **result.csv** during the test process.
- When all the test run is finished, the console would have the following message

```

PROBLEMS  OUTPUT  TERMINAL  DEBUG CONSOLE
atest/vendors.36226e6c97af244d01d1.js (1)
[19404:19124:0801/133523.683:ERROR:CONSOLE(1355)] "Uncaught (in promise) undefined", source: https://assets.msn.com/bundles/v1/edgeChromium/latest/common.727f220928e5f3722829.js (1355)
[19404:19124:0801/133524.883:ERROR:CONSOLE(1)] "code=404, [object Object] Sun Aug 01 2021 13:35:24 GMT+0700 (Indochina Time)", source: https://assets.msn.com/bundles/v1/edgeChromium/latest/vendors.36226e6c97af244d01d1.js (1)
[16980:18596:0801/133717.397:ERROR:gpu_init.cc(441)] Passthrough is not supported, GL is disabled
[13560:10752:0801/133717.943:ERROR:gpu_init.cc(446)] Passthrough is not supported, GL is disabled
ALL TEST CASE HAS BEEN ACCOMPLISHED
DONE!

```

- **result.txt** records the statistics about the number of test cases that are PASS or FAIL during the process according to a browser

```

result.txt
1  Total test case: 600
2  Google Chrome: 359 PASS, 241 FAIL
3  FireFox: 359 PASS, 241 FAIL
4  Microsoft Edge: 359 PASS, 241 FAIL
5  1800 test cases were accomplished during the test for three browsers
6

```

- **result.csv** records the detail about one specific test case, each case for each browser is distinguished with the browser name column

```

18127104.py  Readme.txt  result.csv  input.csv  result.txt
result.csv
1  ID,Build Version,Expected Result,Actual Result,Test Status,Browser Name
2  00-01,Prototype,2,2,PASS,Google Chrome
3  00-01,Prototype,2,2,PASS,Firefox
4  00-01,Prototype,2,2,PASS,Microsoft Edge
5  00-02,Prototype,0.3,0.30000000000000004,FAIL,Google Chrome
6  00-02,Prototype,0.3,0.30000000000000004,FAIL,Firefox
7  00-02,Prototype,0.3,0.30000000000000004,FAIL,Microsoft Edge

```

- Here is The table illustrates the test result base on 600 test cases used for one browser - 10 build version (60 test cases for each build), this table is recorded in **result.txt**

Browser Name	PASS	FAIL
Google Chrome	359	241
Firefox	359	241
Microsoft Edge	359	241

### 3. Demo video

- Youtube: <https://youtu.be/WRidCcjPaBE>
- Explanation at minute: [43:31](#)

### 4. Self assessment

#### Self-Assessment Report

No.	Criteria	Grade	Self-Assessment Grade
1	Test cases for "Calculate function" should cover all cases with required template	2	2
2	Selenium scripts for " Calculate function" should cover all cases which are designed in [1]	2	2
3	Selenium Scripts for “Calculate function” run correctly with provided test data	2	2
4	Capture video for test executions	2	2
5	Use at least 3 Selenium WebDrivers for different browsers	1	1
6	Write test report	1	1
	<b>Total</b>	10	10