

Experiment 9: Design test cases and generate test scripts in Selenium

Learning Objective: Students will able to create unit test cases

Tools: Selenium record and playback

Theory:

Software testing is an investigation conducted to provide stakeholders with information about the quality of the product or service under test. Software testing also provides an objective, independent view of the software to allow the business to appreciate and understand the risks of software implementation.

Write a program to calculate the square of a number in the range 1-100

```
#include <stdio.h>
int main() {
    int n, res;

    printf("Enter a number: ");
    scanf("%d", &n);

    if (n >= 1 && n <= 100) {
        res = n * n;
        printf("\nSquare of %d is %d\n", n, res);
    } else if (n <= 0 || n > 100) {
        printf("Beyond the range");
    }

    return 0;
}
```

Sr no	Input	Output
1	-2	Beyond the range
2	0	Beyond the range
3	1	Square of 1 is 1
4	100	Square of 100 is 10000
5	101	Beyond the range
6	4	Square of 4 is 16
7	62	Square of 62 is 3844

Test Cases

Test case 1 : {I1 ,O1}

Test case 2 : {I2 ,O2}

Test case 3 : {I3, O3}

Test case 4 : {I4, O4}

Test case 5 : {I5, O5}

Test case 6 : {I6, O6}

Test case 7 : {I7, O7}

Black-box testing

Knowing the specified function that a product has been designed to perform, test to see if that function is fully operational and error free. Includes tests that are conducted at the software interface. Not concerned with internal logical structure of the software

It uncovers

- Incorrect or missing functions
- Interface errors
- Errors in data structures or external data base access
- Behavior or performance errors
- Initialization and termination errors

Output:

Selenium IDE - seminar attendance*

Project: seminar attendance*

Executing ▾

https://sujitkumarmourya.vercel.app

	Command	Target	Value
1	✓ open	/	
2	✓ set window size	1050x840	
3	✓ click	linkText=Login	
4	✓ click	name=email	
5	✗ type	name=email	mouryasujit04@gmail.com
6	click	name=password	
7	type	name=password	Sujit9920@
8	click	css=h-16:nth-child(3)	
9	click	name=email	
10	type	name=email	m@gmail.com
11	click	name=password	

Command: #

Target:

Value:

Description:

Runs: 1 Failures: 1

Log Reference

Running 'username password'

- open on / OK 13:12:58
- setWindowSize on 1050x840 OK 13:12:59
- click on linkText=Login OK 13:13:00
- Trying to find name=email... OK 13:13:00

Warning Element found with secondary locator xpath=/input. To use it by default, update the test step to use it as the primary locator. 13:13:30

5. Trying to find name=email... Fail! 13:13:30

Learning Outcomes: Students should have the ability to

LO1: Students will be able to understand Software Testing Concepts and the various Software standards.

LO2: to test a software with the help of Junit

LO3: create test cases

LO4: To understand different tools for testing

Outcomes: Upon completion of the course students will be able to write test cases for the project.

Conclusion:

For Faculty Use

Correction Parameters	Formative Assessment [40%]	Timely completion of Practical [40%]	Attendance / Learning Attitude [20%]	
Marks Obtained				



TCET

DEPARTMENT OF COMPUTER ENGINEERING (COMP)

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