

UNIT TESTING REPORT

- ❖ We are using Cunit for testing user authentication and validity of loading details from user.txt
- ❖ We have made various header files along with .c and main file. At the end we are using makefile to compile and run the program.

CUnit Testcases for user authentication function:

- **3 Sunny testcases** (Valid input files) and **3 rainy testcases** (Invalid input files)

```
void testSunnyCases1(void) {
    CU_ASSERT_EQUAL(authentication("data/usercu.txt","nikita","nikita15"), 2);
    CU_ASSERT_EQUAL(authentication("data/usercu.txt","suraj","suraj25"), 2);
    CU_ASSERT_EQUAL(authentication("data/usercu.txt","dinesh","dinesh16"), 2);
}
void testRainyCases1(void) {
    CU_ASSERT_EQUAL(authentication("data/usercu.txt","anony","anony"), 1);
    CU_ASSERT_EQUAL(authentication("data/usercu.txt","author","author23"), 1);
    CU_ASSERT_EQUAL(authentication("data/usercu.txt","ruby","ruby7"), 1);
}
```

Cunit Testcases for checking validity of loading user data function:

- **3 Sunny testcases** and **3 Rainy testcases**

```
ser server;
void testSunnyCases2(void) {
    CU_ASSERT_EQUAL(LoadUsersData(&server,"data/usercu.txt"), 1);
    CU_ASSERT_EQUAL(LoadUsersData(&server,"data/usercu.txt"), 1);
    CU_ASSERT_EQUAL(LoadUsersData(&server,"data/usercu.txt"), 1);
}
void testRainyCases2(void) {
    CU_ASSERT_EQUAL(LoadUsersData(&server,"data/usercv.txt"), 0);
    CU_ASSERT_EQUAL(LoadUsersData(&server,"data/usercl.txt"), 0);
    CU_ASSERT_EQUAL(LoadUsersData(&server,"data/usercd.txt"), 0);
}
```

Execution as well as Running the program via makefile

```
cg83-user21@instance-1:~/capg_sprint-2_project/Remote-Editor-Sprint-2/CUT/ToolReport/Cunit$ make
gcc -c src/main.c -o bin/main.o -lcunit -g
gcc -c src/authenticate.c -o bin/authenticate.o -lcunit -g
gcc -c src/authenticate_suite.c -o bin/authenticate_suite.o -lcunit -g
gcc -c src/load.c -o bin/load.o -lcunit -g
gcc -c src/load_suite.c -o bin/load_suite.o -lcunit -g
gcc bin/main.o bin/authenticate.o bin/authenticate_suite.o bin/load.o bin/load_suite.o -o bin/file.tests -lcunit -g
./bin/file.tests
```

CUnit - A unit testing framework for C - Version 2.1-3
<http://cunit.sourceforge.net/>

```
Suite: Suite Authenticate file
  Test: test of authenticate() in Sunny cases ...passed
  Test: test of authenticate() in Rainy cases ...passed
```

```
Suite: Suite Load file
  Test: test of load() in Sunny cases ...passed
  Test: test of load() in Rainy cases ...passed
```

Run Summary:	Type	Total	Ran	Passed	Failed	Inactive
	suites	2	2	n/a	0	0
	tests	4	4	4	0	0
	asserts	12	12	12	0	n/a

```
Elapsed time = 0.000 seconds
```