

## CUNIT:

- CUnit is a lightweight system for writing, administering, and running unit tests in C.
- It provides C programmers a basic testing functionality with a flexible variety of user interfaces.
- CUnit is built as a static library which is linked with the user's testing code. It uses a simple framework for building test structures, and provides a rich set of assertions for testing common data types.

1. For send\_file function:

Test Cases:

```
void send_file_sunny(void)
{
    CU_ASSERT_EQUAL(send_file("hash.txt",1234), 1);
    CU_ASSERT_EQUAL(send_file("hash1.txt",1235), 1);
}

void send_file_rainy(void)
{
    CU_ASSERT_EQUAL(send_file("hash9.txt",4321), 0);
    CU_ASSERT_EQUAL(send_file("hash10.txt",4322), 0);
}
```

## 2. For write\_file() function

Test Case:

```
void write_file_sunny(void)
{
    CU_ASSERT_EQUAL(write_file("test1.txt",8080), 1);
    CU_ASSERT_EQUAL(write_file("test2.txt",8089), 1);
}

void write_file_rainy(void)
{
    CU_ASSERT_EQUAL(write_file("test8.txt",8090), 0);
    CU_ASSERT_EQUAL(write_file("test9.txt",8070), 0);
}
```

REPORT:

```
$ gcc suite.c write_file.c send_file.c sunny_rainy_testcase.c -o A2 -lcunit
```

```
srira@DESKTOP-APN23A ~/RBU
```

```
$ ./A2.exe
```

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

```
Suite: suite write_file...
```

```
  Test: Test for write_file() in sunny cases ...passed
```

```
  Test: Test for write_file() in rainy cases ...passed
```

```
Suite: suite send_file...
```

```
  Test: Test for send_file() in sunny cases ...passed
```

```
  Test: Test for send_file() 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    8      8     8    0   n/a
```

```
Elapsed time =   0.031 seconds
```