

MyFind - Testsuite

ACU 2022 Team



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MyFind: testsuite implementation in shell

- Check a series of features automatically and quickly
- Prevent regression
- Maximize your grade!

- Unit tests: Check the behaviour of a small part of your program (usually a function)
- Functional tests: Check if the program satisfies the requirements/specifications

- Main idea: compare find and myfind
- Write a series of tests using different parameters

Things to compare

- Standard output
- Standard error existence
- Return value
- Leaks (see Valgrind for this one)

Using diff(1)

- Utility to compare 2 or more files
- Can be used here to compare find(1) and myfind output

Usage

```
42sh$ echo "hello"{1..5} | tr ' ' '\n' > file1
42sh$ echo "hello"{2..7} | tr ' ' '\n' > file2
42sh$ diff -u file1 file2
--- file1      2020-10-23 20:21:41.530000000 +0200
+++ file2      2020-10-23 20:21:47.630000000 +0200
@@ -1,5 +1,6 @@
-hello1
 hello2
 hello3
 hello4
 hello5
+hello6
+hello7
```

diff(1) return value

- 0: same
- 1: different

Example

```
42sh$ echo foo > file1 && echo bar > file2
42sh$ diff -u file1 file2
--- file1      2020-10-23 20:35:12.340000000 +0200
+++ file2      2020-10-23 20:35:12.340000000 +0200
@@ -1 +1 @@
-foo
+bar
42sh$ echo $?
1
42sh$ diff -u file1 file1
42sh$ echo $?
0
```


- `$?:` return value (`find -name '*.c'; echo $?`)
- `sort(1)`: sort standard input

- Use your favorite programming language as long as it is in the PIE
- Be creative (Random test generator, Score or percentage at the end, Colors...)
- There are **NEVER** enough tests
- Start your testsuite as soon as possible

- Any questions ?