

The crackme2 file is an ELF file.

```
└─$ ./crackme2
Usage : ./crackme2 password
Good luck, read the source
```

It says Good luck, read the source.

Using strings ,strcmp or ltrace doesn't give us anything.

```
UH-H
[]A\A]A^A_
password OK
password "%s" not OK
Usage : %s password
Good luck, read the source
;*3$"
GCC: (Ubuntu 4.8.2-19ubuntu1) 4.8.2
.symtab
```

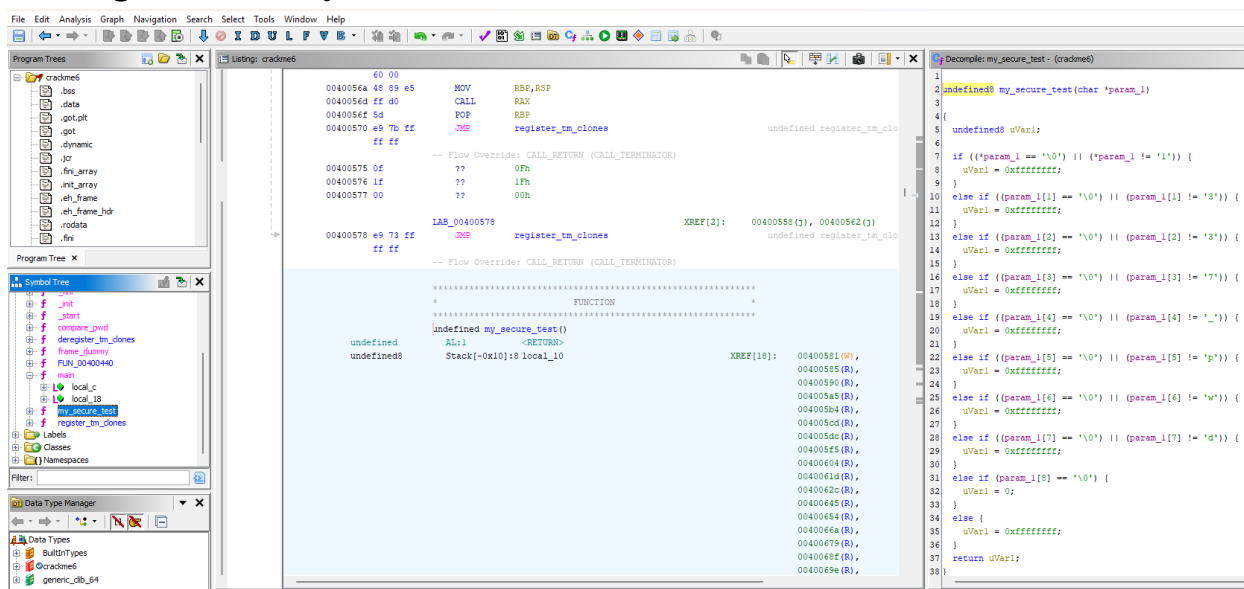
```
└─$ ltrace ./crackme2
__libc_start_main(0x400711, 1, 0x7ffda5463468, 0x400760 <unfinished ...>
printf("Usage : %s password\nGood luck, r" ..., "./crackme2"Usage : ./crackme2 password
Good luck, read the source
)
= 55
+++ exited (status 0) +++
```

So, we run this file in Ghidra(Ghidra is a reverse engineering tool).

There seems to be nothing of use in the main function

```
1
2 undefined8 main(int param_1, undefined8 *param_2)
3
4 {
5     if (param_1 == 2) {
6         compare_pwd(param_2[1]);
7     }
8     else {
9         printf("Usage : %s password\nGood luck, read the source\n", *param_2);
10    }
11    return 0;
12 }
13
```

Going to the my\_secure\_test function,



```
1
2 undefined my_secure_test(char *param_1)
3
4 {
5     undefined uVar1;
6
7     if ((*param_1 == '\0') || (*param_1 != '1')) {
8         uVar1 = 0xffffffff;
9     }
10    else if ((param_1[1] == '\0') || (param_1[1] != '3')) {
11        uVar1 = 0xffffffff;
12    }
13    else if ((param_1[2] == '\0') || (param_1[2] != '3')) {
14        uVar1 = 0xffffffff;
15    }
16    else if ((param_1[3] == '\0') || (param_1[3] != '7')) {
17        uVar1 = 0xffffffff;
18    }
19    else if ((param_1[4] == '\0') || (param_1[4] != '_')) {
20        uVar1 = 0xffffffff;
21    }
22    else if ((param_1[5] == '\0') || (param_1[5] != 'p')) {
23        uVar1 = 0xffffffff;
24    }
25    else if ((param_1[6] == '\0') || (param_1[6] != 'w')) {
26        uVar1 = 0xffffffff;
27    }
28    else if ((param_1[7] == '\0') || (param_1[7] != 'd')) {
29        uVar1 = 0xffffffff;
30    }
31    else if (param_1[8] == '\0') {
32        uVar1 = 0;
33    }
34    else {
35        uVar1 = 0xffffffff;
36    }
37    return uVar1;
38 }
```

We see some text being passed in the param\_1 variable.

```

C:\Decompile: my_secure_test - (crackme6)
1
2 undefined8 my_secure_test(char *param_1)
3
4 {
5     undefined8 uVar1;
6
7     if ((*param_1 == '\0') || (*param_1 != '1')) {
8         uVar1 = 0xffffffff;
9     }
10    else if ((param_1[1] == '\0') || (param_1[1] != '3')) {
11        uVar1 = 0xffffffff;
12    }
13    else if ((param_1[2] == '\0') || (param_1[2] != '3')) {
14        uVar1 = 0xffffffff;
15    }
16    else if ((param_1[3] == '\0') || (param_1[3] != '7')) {
17        uVar1 = 0xffffffff;
18    }
19    else if ((param_1[4] == '\0') || (param_1[4] != '_')) {
20        uVar1 = 0xffffffff;
21    }
22    else if ((param_1[5] == '\0') || (param_1[5] != 'p')) {
23        uVar1 = 0xffffffff;
24    }
25    else if ((param_1[6] == '\0') || (param_1[6] != 'w')) {
26        uVar1 = 0xffffffff;
27    }
28    else if ((param_1[7] == '\0') || (param_1[7] != 'd')) {
29        uVar1 = 0xffffffff;
30    }
31    else if (param_1[8] == '\0') {
32        uVar1 = 0;
33    }
34    else {
35        uVar1 = 0xffffffff;
36    }
37    return uVar1;
38 }

```

“1337\_pwd” is being stored in param\_1. Could this be the password?

```
└─$ ./crackme2 1337_pwd  
password OK
```

Indeed it was.

There we have our flag as “**flag{1337\_pwd}**”.