John Currie

CIS 2107

Lab 07

October 22, 2023

1. What is the command to compile the files with extra symbols that are useful for GDB?

-g

2. What's the address of stuff?

0x202c684f

1. What's the address of stuff[0]?

0x202c684f

4. Do we expect these to be the same? Why? Explain what the [ ] operator does in C.

These should be the same as stuff hold the reference to the first location stored in the array, and stuff[0] is a direct call to that location. The [] are used to access an element in the array

5. In Blowfish\_Init( ), what is the value of key?

“LAME\_KEY”

6. What command(s) did you type in order to learn this?

b 383

disp key

7. In Blowfish\_Init( ), what are the values of i and j after the nested for loops have finished?

i.e., after:

for (i = 0; i < 4; i++) {

for (j = 0; j < 256; j++)

ctx->S[i][j] = ORIG\_S[i][j];

}

i = 4 j = 256

8. What command(s) did you type in order to learn this? commands: b Blowfish\_Init, disp i, disp j, b 719, c

9. Before the Blowfish\_Encrypt function is called, what is the value of stuff[3] (for each, print

the value, and the command used to obtain the value):

o in hex? 0x20656874 p /x stuff[3]

o in binary? 100000011001010110100001110100 p /t stuff[3]

o as a float? 1.94316151e-19 p/f stuff[3]

o as 4 chars? T p /c stuff[3]break

10. Before the Blowfish\_Encrypt function is called, what is the value of stuff if we treat it as a

string? (You don't have to write the whole string. Just describe what's there.) What was the

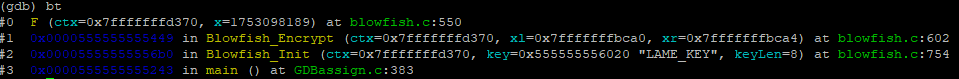
command typed in order to obtain this value?

It is the whole array of stuff where each element is the actual value stored in that location rather than the memory address. p /s stuff

11. What is the value of x the first time that the function F() in Blowfish.c is called?

1754098189

12. What is the output if we run GDB's backtrace (abbreviated "bt") command inside the function F() in Blowfish.c the first time F() is called? Briefly explain the output of the command in your own words.



The output shows the stack, the order in which the functions are called and then executed.