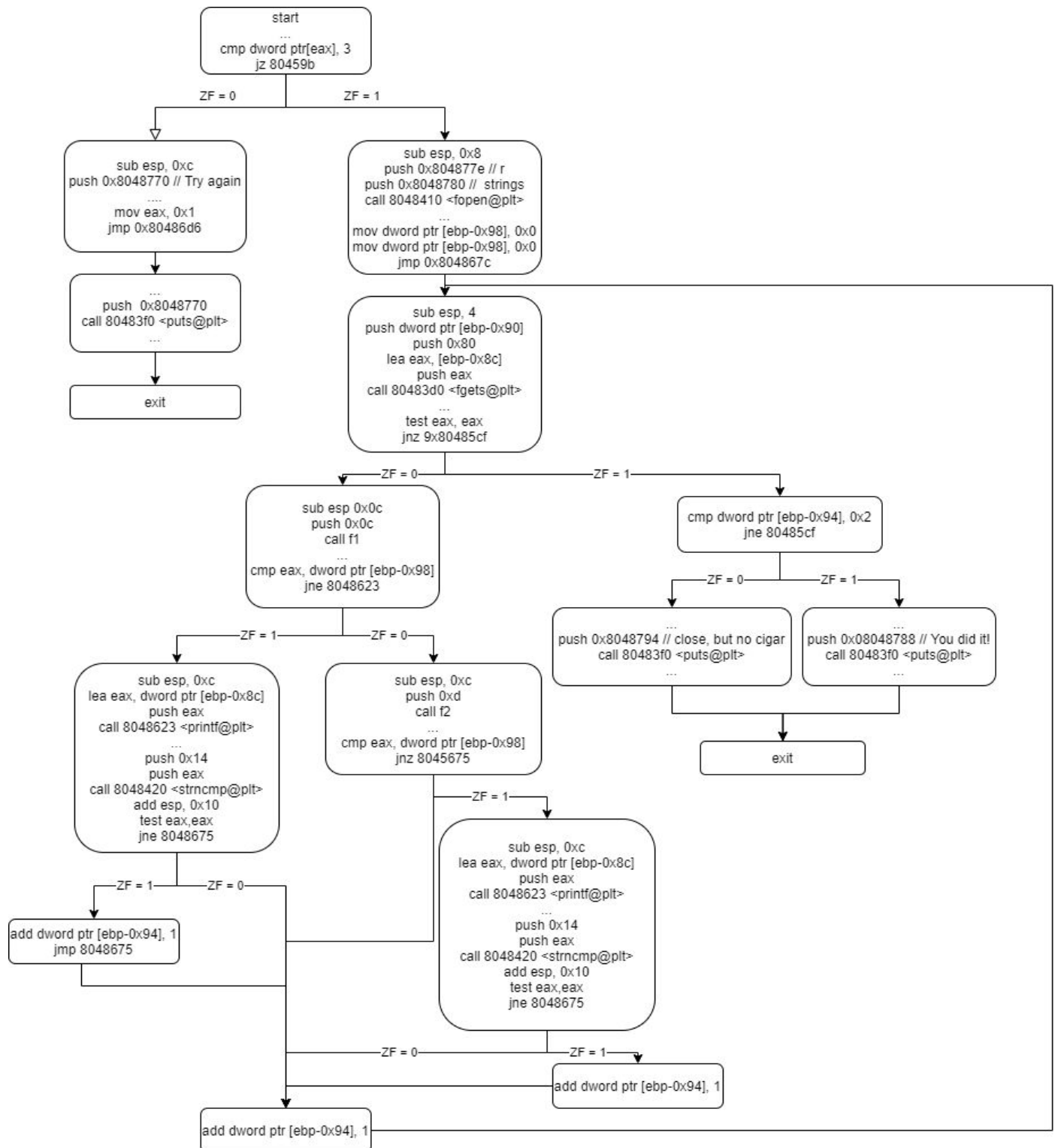


Kevin Gamage

March 27 2020 Lab

Level 1: re_challenge1 (4%)

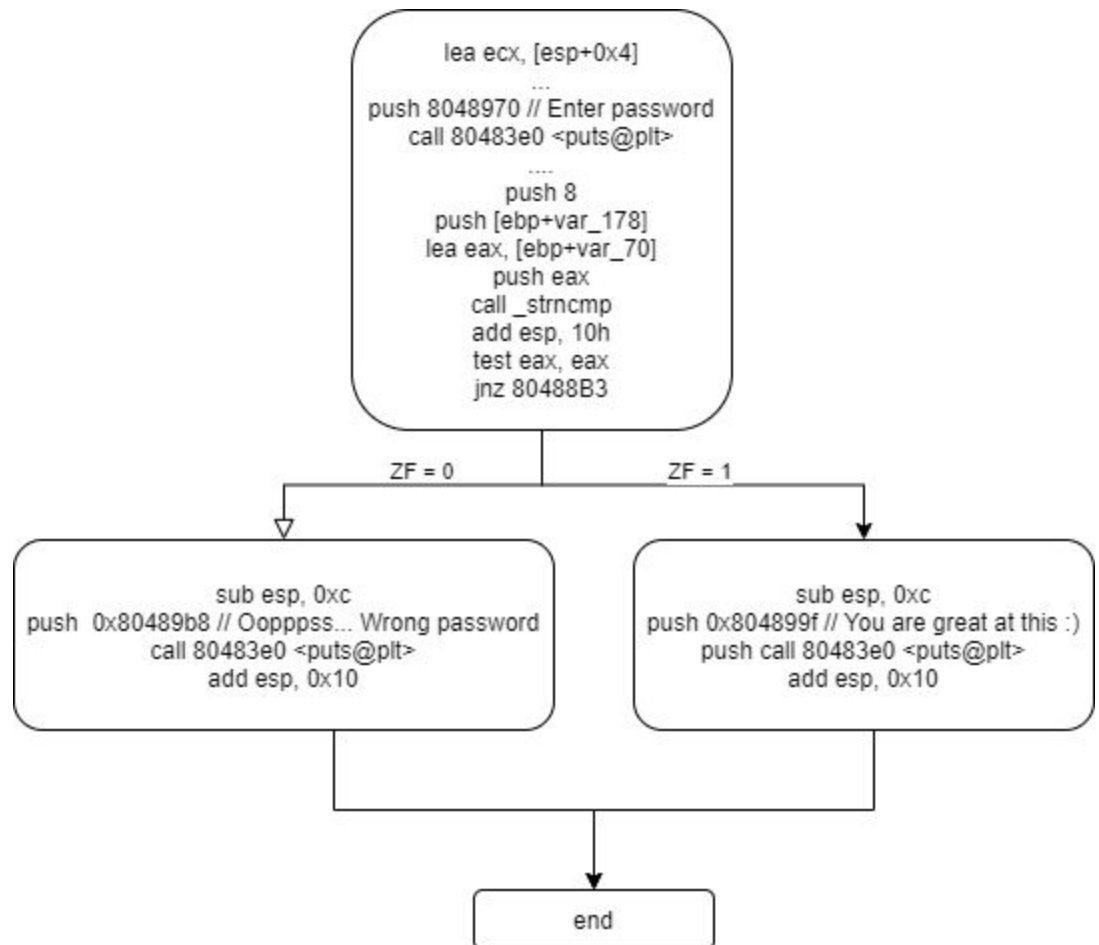
- **Goal:** print "You did it!"
- **Steps:**
 - run program to see output using different arguments
 - Requires 2 arguments
 - Load program into ghidra and check the control flow
 - Locate section of code that causes "You did it!" to print
 - Run ltrace with two commands and check the strcmp to see which values are required to update the variable for you did it to print.
- **CFD:**
 - Observe the control flow diagram from ghidra and note the variables that lead to You did it.



- **Answer:** ./re_challengee1 deregister_tm_clones \n __JCR_LIST__\n

Level 2: re_challenge2 (4%)

- **Goal:** print “You are great at this :)”
- **Steps:**
 - Run program to see output
 - Load program into ghidra and check control flow
 - Only 1 condition needs to pass for “You are great at this :)” to print
 - Note that input is checked to password using strcmp
 - Run ltrace on program with “hello” as password.
 - Note strcmp compares my input “hello” to “yagababa”
 - Run program and give it password “yagababa”
- **CFD:** Observe control flow diagram from ghidra
 - Note there is only one change in control flow that leads to output being “You are great at this :)”



- **Answer:** `./re_challenge2 yagababa`

Level 3: re_challenge3 (2%)

- **Goal:** print "You are amazing!!"
- **Steps:**
 - Run program to see output
 - Note program does not show different output for different arguments
 - Load program into ghidra and check control flow
 - Locate the section of code where you are amazing is printed
 - Note strcmp is used to compare the flag to the key to get to this section
 - Note there must be 1 argument for the program to reach the string you are amazing.
 - Run ltrace on program with sample argument
 - Note argument is compared to "A553Mb1Y"
- **CFD:**



- **Answer:** ./re_challenge3 A553Mb1Y