

# SSE Assignment 1a

Consider the program given in **buffer.c** invokes the function **fib**

- (1) What does this program do?
- (2) Describe a vulnerability in the program.
- (3) Draw the stack layout for the given program.
- (4) Write the contents of str before gets executes?
- (5) Which are the registers used to add  $\text{fib}(n-1) + \text{fib}(n - 2)$ ?
- (6) If n is very large, it is likely to crash the program because the stack will overflow. Find the value of n which crashes your program. Estimate the size of your stack from this value of n.  
Hint: A naive idea will take too long. You may need to modify the program.
- (7) Find a way to increase the stack size for your program.