

CS410 Homework - 5

Question 1 of 1: [100 marks] Write a prolog program that ‘returns’ the first N Fibonacci numbers.

Your predicate should be named *fib_list_N* with an arity of 2. The first argument should be the number of Fibonacci elements required (N), while the second argument should be the list of Fibonacci numbers of length N.

For this assignment, name your source file **HW5_WSUID.pl**. For example, if your user ID is A999B999 name your file as **HW5_A999B999.pl**.

Sample Test cases:

<u>Test case 1:</u> <i>fib_list_N</i> (5, X) Output: X = [0, 1, 1, 2, 3]	<u>Test case 2:</u> <i>fib_list_N</i> (7, [0, 1, 1, 2, 3, 5, 8]) Output: true
<u>Test case 3:</u> <i>fib_list_N</i> (10, X) Output: X = [0, 1, 1, 2, 3, 5, 8, 13, 21, 34]	<u>Test case 4:</u> <i>fib_list_N</i> (7, [0, 1, 1, 2]) Output: false