An-Najah National University
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Department of Computer Science
Homework

Any copy will make it Zero

Program1:

Write two functions for each of the following (a **recursive** function and an **iterative** function):

1- calculate the Fibonacci's number of the following equation
F(1) = 3
F(2) = 4
F(3)= 5
F(n)= F(n-1) + F(n-2) - F(n-3)

2- take two arrays and determine if the two arrays are equal or not.

Your program must display the following list of choices to the user, and execute the corresponding function accordingly (the user is asked to enter the required input after he chooses a number from the list).

1- Fibonacci's number (iterative)
2- Fibonacci's number (recursive)
3- Are arrays equal (iterative)
4- Are arrays equal (recursive)
Note: Ask the user about the size of the arrays and their contents.

Program2:

- Include the singly list code + the stack code in your program as header files
- Write a function to print a singly list of integers in reverse using stack and keeping the list unchanged.
Hint: Push the nodes' addresses on the stack.
- In your main function, write a code to test the function above.