SSW215-A Individual Software Engineering
Fall 2022
Assignment #5
Due October 19, 10:00 am

There are 3 problems in this assignment. Please submit a single Python file including the full working code of all problems with the logical order.

Problem 1
Write a program to display the Fibonacci sequence up to n-th term. The program should prompt the user for the number of terms.
Hint: a Fibonacci sequence is the integer sequence of 0, 1, 1, 2, 3, 5, 8.... The first two terms are 0 and 1. All other terms are obtained by adding the preceding two terms.

Problem 2
Write a program to populate an empty dictionary named myDict (see myDict sample below) and check if the values in myDict are prime or not. If a prime number is found, the program should print a text message including the corresponding key of the prime number.
myDict sample: myDict = {“A”: 11, “B”: 4, “C”: 7, “D”: 15, “E”: 1}

Hint: a natural number is called a prime number (or a prime) if it is greater than 1 and cannot be written as the product of two smaller natural numbers. For example, 2, 3, and 5 are prime numbers.

Problem 3
Python’s pow function returns the result of raising a number to a given power. Define a function expo that performs this task. The first argument of this function is the number, and the second argument is the exponent (non-negative numbers only). You may use either a loop or a recursive function in your implementation.
CAUTION: do not use Python’s ** operator or pow function in this exercise!