



NATIONAL INSTITUTE OF TECHNOLOGY -
KARNATAKA, SURATHKAL

THE INSTITUTION OF ENGINEERS - NITK CHAPTER



ML SMP 2019

Assignment 3 - Python

Write Python programs/functions for the following problems with appropriate names.
Add these .py/.ipynb files in a single folder with Your name as the name of the folder.
Add this folder to Assignment 3 folder in GitHub.

1. Write a Python function to check whether a string is a pangram or not. Note:
Pangrams are words or sentences containing every letter of the alphabet at least once. (Try to use set data structure)
2. Write a Python program using Sieve of Eratosthenes method for computing primes up to a specified number.
Note: the **Sieve of Eratosthenes** is a simple, ancient algorithm for finding all prime numbers up to any given limit.
It does so by iteratively marking as composite (i.e., not prime) the multiples of each prime, starting with the first prime number, 2. The multiples of a given prime are generated as a sequence of numbers starting from that prime, with a constant difference between them that is equal to that prime. (for more info: https://en.wikipedia.org/wiki/Sieve_of_Eratosthenes)
3. Write a Python program to check whether a list contains a sublist. For example, [3,5] is a sublist of [2,6,3,5,1,7] but [2,3] is not a sublist.
4. Write a Python program to combine two dictionary adding values for common keys.
D1 = {'x': 10, 'y': 20, 'z': 30}
D2 = {'x': 30, 'y': 20, 't': 40}
output:({'x': 40, 'y': 40, 't': 40, 'z': 30})