

## **Lab 5 – Python Programs with Functions**

### **Task 0 - Get Organised.**

- Create a new folder lab5 in your folder labs.

### **Task 1 – All Primes / All Palindrome Primes**

This task requires you to write the isPrime function and to use it to generate all prime numbers between 1 and n.

- Analyse the problem to find the inputs, outputs and how to solve it.
- Write the isPrime function
- Input n
- Traverse all numbers I in the range 1 to n
  - Test if i is prime and print it
- Now write the reverse and isPalindrome functions
- Apply isPalidrome and isPrime to generate all palindrome primes

### **Task 2 – The Euclidian Algorithm**

This task is to write the Euclidian function and then to apply it to find the gcd of two long numbers a, b.

- Analyse the problem to find the inputs, outputs and how to solve it.
- Write the gcd function
- Input a, b
- Calculate gcd and write it