

Objectives

This Lab is designed to teach you the basics of python programming

Tasks

Task1: Functions

Create a function for each of the following operations:

- 1) Input: 2 numbers
Output: Returns the sum of the 2 numbers when called
- 2) Input: 2 numbers
Output: Returns the value of the second number subtracted from the first number.
- 3) Input: 2 numbers
Output: Returns the multiplicative value of the 2 numbers when called
- 4) Input: 2 numbers
Output: Returns the value of the first number divided by the second number
- 5) Input: 2 numbers
Output: Returns the modulus of the first number by the second number
- 6) Input: 2 numbers
Output: Returns the exponent of the first number with the second number as the

Task2: Strings

In this task we will be playing around with strings and operations on strings, the strings have to be read as an input in the terminal.

- 1) Print each character of a string using a loop
- 2) Print the size of a string
- 3) Concatenate two strings together without using a function (needs to have a space in between)
- 4) Print a Reversed string

Task3: List

Create a list of characters and perform Task2 on the List of characters, this is just to show you that strings are just lists in python.

Task4: Project

Create a TicTacToe game complete with 2 players, checking the board for win state or draw state. Take inputs directly from the terminal and print the board after every turn. Start small and test after you add each feature.

Hint1: The board will be 2-D list (board[3][3])

Hint2: The win state will be checked for each row, column and diagonal

Hint3: The draw state will occur when the board is filled with non-zero elements and the win state is not true.