

March 2, 2023 (Week 6)

Python part 2

Objectives:

- Further develop python knowledge

Outline:

- Python
 - Formatting strings
 - Lists, tuples, sets and dictionaries
 - Functions
 - Modules
 - Classes

Homework - due 8am March 4, 2023:

1. Write a python program that prints the first N terms in the Fibonacci series (1 1 2 3 5 8 ...) using recursion
 - Read in argument from user as N
 - Check argument is a positive integer
 - Use a loop to iterate over indices 0 to N
 - Define a function that uses recursion to calculate the term for each index
 - Print each term to the screen
2. Write a python program that creates a grocery shopping list
 - Define a class that holds item price per unit and quantity, a constructor that prompts user to input price per unit and quantity and a method that provides total price for item
 - Prompt user to input number of different items (N) and create a map using item names as the key for instances of your class
 - Use a loop to prompt user to provide item names and instantiate N items
 - Print out full list of items, quantities, unit price and total price