

2020 Fall: CSEE5590 – Special Topics

Python Programming

Lesson2: Loops, List, Tuples, Functions in python

In this lesson all kinds of controls in python will be reviewed.

- a. Working with for loops
- b. Working with Tuples, Lists, Functions
- c. Various kinds of Loops: definite and indefinite loops, using files in loops, Nested Loops

In Class Programming:

1. Write a program, which reads height (feet.) of **N** students into a list and convert these heights to cm in a separate list:

N: No of students (Read input from user)

Ex: **L1: [5.2, 5.4, 5.6, 6.1]**

Output: [158.4, 164.5, 170.6, 185.9]

2. Given a non-negative integer num, return the number of steps to reduce it to zero. If the current number is even, you have to divide it by 2, otherwise, you have to subtract 1 from it.”

Example 1:

Input: num = 14

Output: 6

- **Explanation:**
- Step 1) 14 is even; divide by 2 and obtain 7.
- Step 2) 7 is odd; subtract 1 and obtain 6.
- Step 3) 6 is even; divide by 2 and obtain 3.
- Step 4) 3 is odd; subtract 1 and obtain 2.
- Step 5) 2 is even; divide by 2 and obtain 1.
- Step 6) 1 is odd; subtract 1 and obtain 0.

3. Write a python program to find the wordcount in a file for each line and then print the output. Finally store the output back to the file.

Input: a file includes two line

Python Course

Deep Learning Course

Output:

Python: 1

Course: 2

Deep: 1

Learning: 1

Note: Your program should work for any number of lines.