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Python Programming – Assignment

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

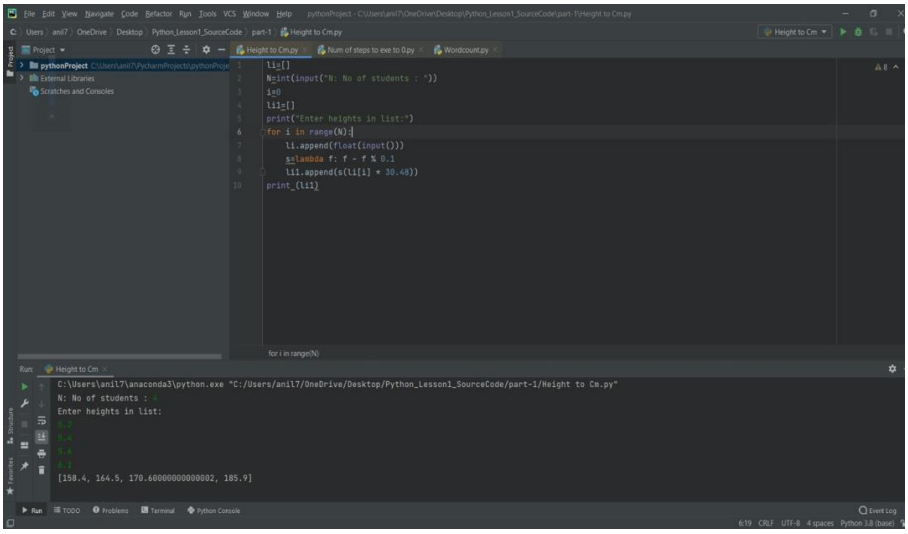
N: No of students (Read input from user)

Ex: L1: [5.2, 5.4, 5.6, 6.1]
Output: [158.4, 164.5, 170.6, 185.9]

Program Execution:

Here, I have written this program by using list concept. I have taken li [] as the empty list. And 'N' as the integer for Input to enter Number of students. Also, another list 'li1' as the empty list. Then entering the heights in the list depends on input of Number of students. Height. Is given as the float (5.2). by using the functionality, I executed the code. Here is the screenshot which is having the code and executed output.

Screenshot:1



N: No of students: 4
Enter heights in list: [5.2, 5.4, 5.6, 6.1]
Output: [158.4, 164.5, 170.60,185.9].

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.”

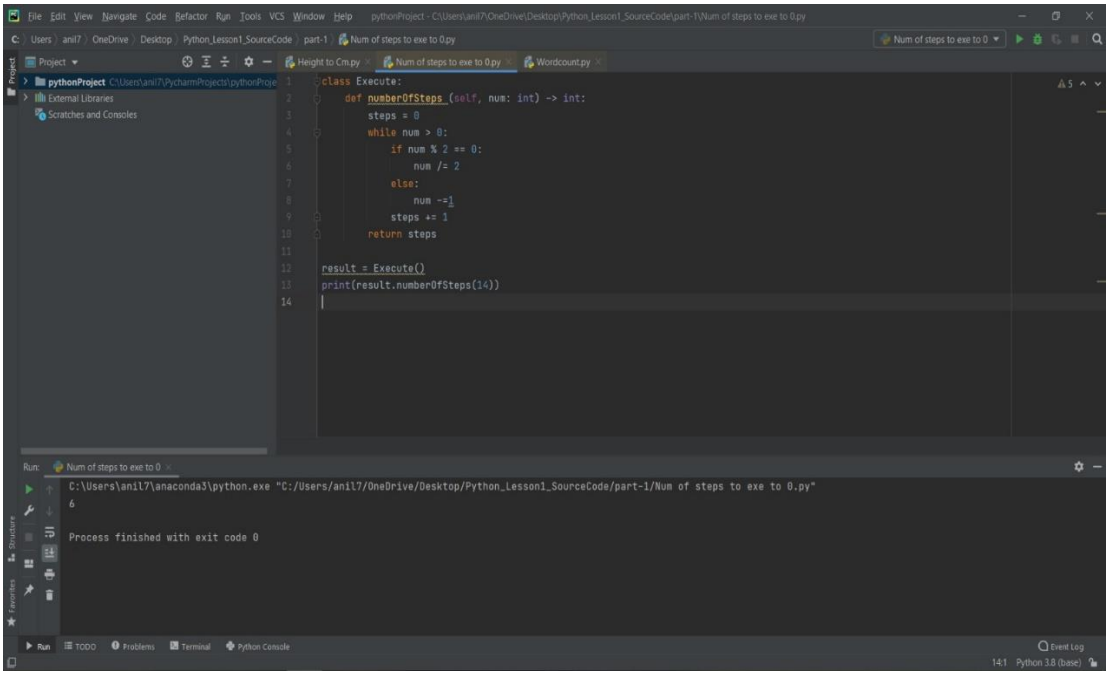
Example 1:
Input: num = 14
Output: 6

- **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.

Program Execution:

Here, in this program, which is providing number of steps to reduce it to zero.
Creating a class name as Execute. And number of steps
Here If the number is greater than zero. Then check for the number is divided by 2 or not. If the number is divided by 2(num%2= =0)
else num= -1. Where steps are incremented until the number becomes zero.
Result is the number of steps taken for (14) is 6.
Below is the Screenshot of the program execution.

Screenshot:2



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

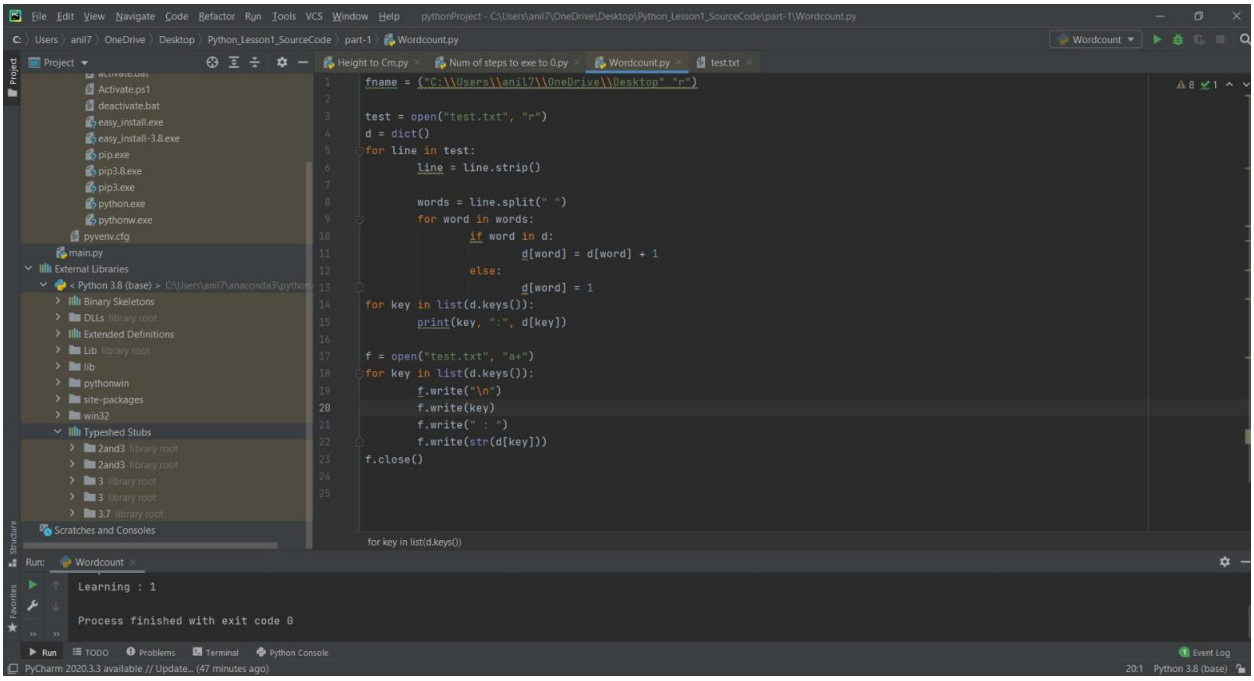
Output:

Python: 1
Course: 2
Deep: 1
Learning: 1

Program Execution:

Here, in this program I have taken the new text file for storing sample data. And given fname = path of the text file. Below screenshots are the code, output and text file.

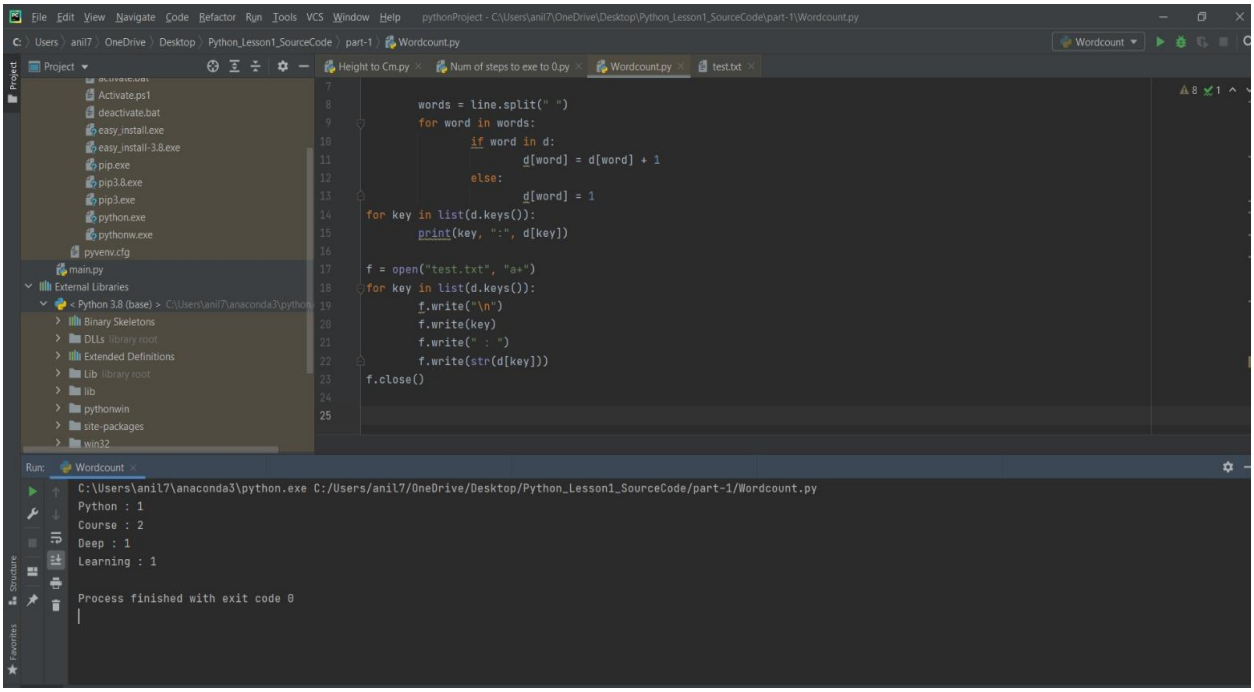
Screenshot:3



Continuing the code in the next screenshot

Screenshot:4

Here, we can see the output



Here in the next screenshot which we can the output is storing back to the file.

Screenshot:5