Software Development Workshop – IIT KGP

Assignment – 1

1. Write a code in python to accept a word and add ‘ing’ to the word. If the word already ends in ‘ing’ then add ‘ly’ to the word.
   Examples
   Input 1 - “talk” Output 1 - “talking”
   Input 2 – “painstaking” Output 2 – “painstakingly”
2. Write a program which takes a list as an argument and one more argument whose value may be 1 or 2. Depending upon the second argument output the sum or product of all elements in the list. Also set default value for the second argument so that if the user does not enter the second argument then the sum of all elements is printed.
   Example
   Input 1 : Argument 1 = [1,3,5] | Argument 2 = 2 |Output 1 – 15
   Input 2 : Argument 1 = [2,3,6] |No argument 2 |Output 2 – 11
3. Write a program to take a list as input and modify the list such that an even number in the list should be converted to its square and an odd number in the list should be converted to its cube. Output should be the modified list.
   Example
   Input 1 : Argument 1 = [1,3,5, 8] |Output 1 – [1, 27, 125, 64]
   Input 2 : Argument 1 = [30, 12, 7]|Output 2 – [900, 144, 343]
4. Write a program to take a sentence as an argument and output the list containing the length of each word in the sentence.
   Example
   Input 1 : Argument 1 = “Hello World”|Output 1 – [5, 5]
   Input 2 : Argument 1 = “Honesty is the best policy”|Output 2 – [7, 2, 3, 4, 6]
5. Write a program to take a list of words as input and output the list containing words in uppercase strictly making the use of the lambda function.
   Example
   Input 1 : Argument 1 = ['learn', 'python', 'step', 'by', 'step']|Output 1 - ['LEARN', 'PYTHON', 'STEP', 'BY', 'STEP']
6. Study python map() function and use it with the lambda function to multiply the elements of two lists and output the third list containing the multiplied elements.
   Example
   Input 1 : Argument 1 = [1,2,-3]| Argument 2 – [100, 200, -1] | Output 1 – [100, 400, 3]

Instructions for submission

- Create a word file of your solution with your Name_AssignmentNumber as the name of the file and mail it to apurvupadeo328@gmail.com on or before 11:59 pm pertaining to the last date of submission.
- Any queries can be mailed on the above Email address or posted on the Whatsapp Number – 9657398434
- Any kind of plagiarism shall not be entertained and may lead to your disqualification from the course.