Purwadhika Module 1 JC Data Science Exam

1. Create a function called Hashtag that generate hashtag which accepting string separated by space as presented in the below with following rules (15 Points):

- It must start with a hashtag (#).
- All words must have their first letter capitalized.
- If the final result is longer than 140 chars it must return False.
- If the input or the result is an empty string it must return False.

For Example:

```
def Hashtag(string):
    #Write your code here
```

Hashtag(" Hello there how are you doing") //would return "#HelloThereHowAreYouDoing"
Hashtag("   Hello   World   ")//would return "#HelloWorld"
Hashtag("")// would return False

2. Write a function that accepts a list of 10 integers (between 0 and 9), that returns a string of those numbers in the form of a phone number (10 points).

For Example:

```
def create_phone_number(number):
    #write your code here
```

create_phone_number([1, 2, 3, 4, 5, 6, 7, 8, 9, 0])//would return "(123) 456-7890"

The returned format must follow the example. Don't forget the space after the closing parentheses!

3. **You are given a list of integers. Your task is to sort odd numbers within the list in ascending order, and even numbers in descending order but keep all the odds or the evens number in the same index group (35 Points).**

Note that zero is an even number. If you have an empty list, you need to return it.

For Example:

```
def sort_odd_even(num):
    #write your code here
```

Sort_odd_even([5, 3, 2, 8, 1, 4]) // would return [1, 3, 8, 4, 5, 2]

odd numbers ascending: [1, 3,   5,] (Odds number in the index 0, 1, and 4)
even numbers descending: [8, 4,   2] (Evens number in the index 2,3, and 5)

4. **Create a function hollowTriangle(height) that returns a hollow triangle of the correct height or level. (40 Points)**

For Example:

hollowTriangle(1)// would return	hollowTriangle(2)// would return	hollowTriangle(3)// would return
#	_#_ ###	__#__ _#_#_ #####

hollowTriangle(4)// would return	hollowTriangle(5)// would return	hollowTriangle(6)// would return
___#___ __#_#__ _#___#_ #######	____#____ ___#_#___ __#___#__ _#_____#_ #########	_____#_____ ____#_#____ ___#___#___ __#_____#__ _#_____#_ ###########