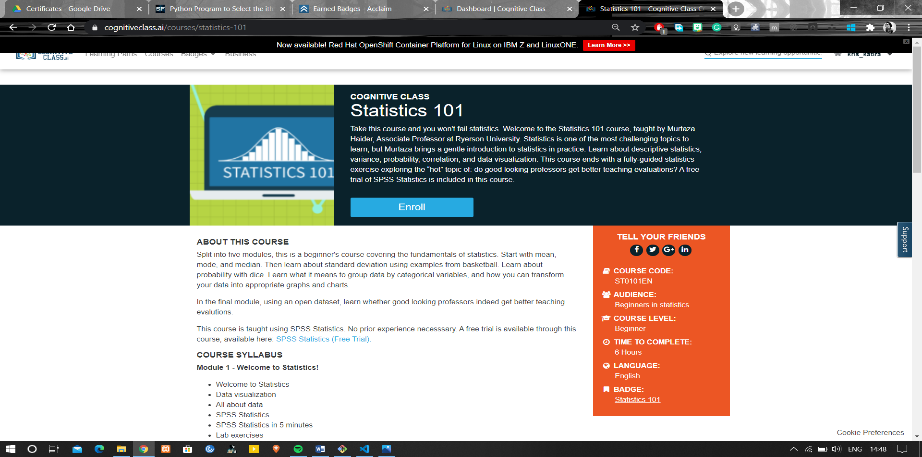
**DAILY ONLINE ACTIVITIES SUMMARY**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date:** | **18/07/2020** | | | | | **Name:** | **Katira Krishna J** | |
| **Sem & Sec** | **8th A** | | | | | **USN:** | **4AL16CS045** | |
| **Online Test Summary** | | | | | | | | |
| **Subject** | | **-** | | | | | | |
| **Max. Marks** | | **-** | | **Score** | | | **-** | |
| **Certification Course Summary** | | | | | | | | |
| **Course** | **Statistics 101** | | | | | | | |
| **Certificate Provider** | | | **Cognitiveclass.ai** | | **Duration** | | | **6 hours** |
| **Coding Challenges** | | | | | | | | |
| **Problem Statement: Python program to implement Radix Sort** | | | | | | | | |
| **Status: Completed** | | | | | | | | |
| **Uploaded the report in Github** | | | | | **Yes** | | | |
| **If yes Repository name** | | | | | **Krishna\_Katira** | | | |
| **Uploaded the report in slack** | | | | | **Yes** | | | |

Online Test Details:

No test conducted

Certification Course Details:



Coding Challenges Details:

**Program:**

def radix\_sort(alist, base=10):

if alist == []:

return

def key\_factory(digit, base):

def key(alist, index):

return ((alist[index]//(base\*\*digit)) % base)

return key

largest = max(alist)

exp = 0

while base\*\*exp <= largest:

alist = counting\_sort(alist, base - 1, key\_factory(exp, base))

exp = exp + 1

return alist

def counting\_sort(alist, largest, key):

c = [0]\*(largest + 1)

for i in range(len(alist)):

c[key(alist, i)] = c[key(alist, i)] + 1

# Find the last index for each element

c[0] = c[0] - 1 # to decrement each element for zero-based indexing

for i in range(1, largest + 1):

c[i] = c[i] + c[i - 1]

result = [None]\*len(alist)

for i in range(len(alist) - 1, -1, -1):

result[c[key(alist, i)]] = alist[i]

c[key(alist, i)] = c[key(alist, i)] - 1

return result

alist = input('Enter the list of (nonnegative) numbers: ').split()

alist = [int(x) for x in alist]

sorted\_list = radix\_sort(alist)

print('Sorted list: ', end='')

print(sorted\_list)