**DAILY ASSESSMENT FORMAT**

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| **Date:** | **17/07/2020** | **Name:** | **Abhishek Vasudev Mahendrakar** | |
| **Course:** | **30 days coding challenge-HackerRank** | **USN:** | **4AL17EC003** | |
| **Topic:** | **Day 6-10** | **Semester & Section:** | **6th-‘A’** | |
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| **FORENOON SESSION DETAILS** | | | |
| **Image of session** | | | |
| **Report – Report can be typed or hand written for up to two pages.** Day 6: Let's Review **Task** Given a string,S , of length N that is indexed from 0 to N-1, print its *even-indexed* and *odd-indexed* characters as 2 space-separated strings on a single line (see the *Sample* below for more detail).  **Note:** 0 is considered to be an *even* index.  **Code:**  # Enter your code here. Read input from STDIN. Print output to STDOUT  T= int(input())  s=[]  for n in range(T):      a=input()      s.append(a)  for j in s:      even =""      odd=""      for i in range(len(j)):          if i%2==0:              even = even + j[i]          else:              odd= odd+ j[i]      print(even, odd)   Day 7: Arrays **Task** Given an array,A ,N of A integers, print 's elements in reverse order as a single line of space-separated numbers.**Code:**  #!/bin/python3  import math  import os  import random  import re  import sys    if \_\_name\_\_ == '\_\_main\_\_':      n = int(input())      arr = list(map(int, input().rstrip().split()))  x= list(reversed(arr))  print(\*x) Day 8: Dictionaries and Maps **Task** Given n names and phone numbers, assemble a phone book that maps friends' names to their respective phone numbers. You will then be given an unknown number of names to query your phone book for. For each name queried, print the associated entry from your phone book on a new line in the form name=phoneNumber; if an entry for name is not found, print Not found instead.  **Code:**  # Enter your code here. Read input from STDIN. Print output to STDOUT  import sys  n=int(sys.stdin.readline().strip())  d= dict()  for i in range(n):      dic= sys.stdin.readline().strip().split(" ")      d[dic[0]]=dic[1]  name= sys.stdin.readline().strip()  while name:      num= d.get(name)      if num:          print(name + "=" + num)      else:          print("Not found")      name= sys.stdin.readline().strip() Day 9: Recursion 3 **Task** Write a *factorial* function that takes a positive integer,N  as a parameter and prints the result of N! (N factorial).  **Note:** If you fail to use recursion or fail to name your recursive function *factorial* or *Factorial*, you will get a score of 0.  **Code:**  #!/bin/python3  import math  import os  import random  import re  import sys  # Complete the factorial function below.  def factorial(n):      if n<=1:          return 1      else:          return n \* factorial(n-1)  if \_\_name\_\_ == '\_\_main\_\_':      fptr = open(os.environ['OUTPUT\_PATH'], 'w')      n = int(input())      result = factorial(n)      fptr.write(str(result) + '\n')      fptr.close() Day 10: Binary Numbers **Task** Given a base-10 integer, n, convert it to binary (base-2). Then find and print the base-10 integer denoting the maximum number of consecutive 1's in n's binary representation.  **Code:**  #!/bin/python3  import math  import os  import random  import re  import sys    if \_\_name\_\_ == '\_\_main\_\_':      n = int(input())      cci= 0      mci= 0      while n>0:          rem= n%2          if rem==1:              cci+=1              if cci>mci:                  mci=cci          else:              cci=0          n=n//2  print(mci) | | | |