NPTEL (https://swayam.gov.in/explorer?ncCode=NPTEL) » The Joy of Computing using Python (course)

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Unit 7 - Week 6

Thank you for taking the Assignment 6. Course outline How does an NPTEL online course work? **Assignment 6** Your last recorded submission was on 2020-10-20, 18:06 IST Due date: 2020-10-28, 23:59 IST. Week 2 NOTE: Python 3.7 has been used for this Assignment Week 3 week 4 1) Look at the following functions 1 noint Week 5 import random import string def create_encryption_key(string1): chars=list(set(list(string1))) O Substitution Cipher -The kevdict={} taken =[] for each in chars: unit=124&lesson=125) Substitution Cipher -The while (1): science of secrecy 01 (unit? r=random.choice(chars) if(r not in taken): unit=124&lesson=126) Substitution Cipher -The keydict [each] = r science of secrecy 02 (unit? taken.append(r) unit=124&lesson=127) break Substitution Cipher -The return (keydict) science of secrecy 03 (unit? unit=124&lesson=128) def reverse(d): d1={} for each in d: d1[d[each]]= each return d1 Tic Tac Toe - Down the memory Lane (unit? unit=124&lesson=129) Tic Tac Toe - Down the memory Lane 01 (unit? unit=124&lesson=130) def encrypt(letter ,key): 1=[] for i in range(0,len(letter)): Lane 02 (unit? l.append(key[letter[i]])unit=124&lesson=131) ☐ Tic Tac Toe - Down the memory Which of the following set of statements correctly represent encryption and decryption using substitution cipher? unit=124&lesson=132) It is also given that the set of characters for substitution is chosen from the plain text. Tic Tac Toe - Down the memory Lane 04 (unit? unit=124&lesson=133) plain_text=input("Enter the string you want to encrypt") key=create_encryption_key(plain_text) Tic Tac Toe - Down the memory Lane 05 (unit? cipher list= encrypt(plain text,key) cipher_text=(' '.join(cipher_list)) unit=124&lesson=134) plain_list= encrypt(cipher_list,reverse(key)) plain_text= (' '.join(plain_list)) Recursion (unit? unit=124&lesson=135) plain_text=input("Enter the string you want to encrypt") Recursion 01 (unit? key=create_encryption_key(plain_text) cipher_list= encrypt(plain_text,key) Recursion 02 (unit? cipher_text=(' '.join(cipher_list)) unit=124&lesson=137) plain_list= encrypt(cipher_list,key) Recursion 03 (unit? plain_text= (' '.join(plain_list)) unit=124&lesson=138) plain_text=input("Enter the string you want to encrypt") Recursion 04 (unit? unit=124&lesson=139) key=create_encryption_key(plain_text) cipher_list= encrypt(plain_text,key) Recursion 05 (unit? cipher_text=(' '.join(cipher_list)) unit=124&lesson=140) plain list= encrypt(plain list,reverse(key)) Recursion 06 (unit? unit=124&lesson=141) plain_text= (' '.join(plain_list)) O None of the above Programming Assignment - 1: 2) Assuming, there is no file named 'file.txt' on my computer, what does the following code do? 1 point Duplicate (/noc20_cs83/progassignment? with open('file.txt','w') as f: name=292) print(f.read()) Programming Assignment - 2: f.write('Hey! I am writing'); The power of 2 (/noc20_cs83/progassignment? name=293) O Creates a file named file.txt and adds 'Hey! I am writing' to it Programming Assignment 3: Lower Triangular Matrix O Shows an error because file does not exist (/noc20_cs83/progassignment?

o shows an error because file in not opened in the reading mode

O None of the above

Assessment submitted (assessment?name=298)

 Week 6 Feedback Form : The Joy of Computing using Python (unit?unit=124&lesson=142)

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3) What does the function 'confidential' do?
   def confidential (mob_num):
               subs_dict={}
               sec_num = [0] * len(mob_num)
               for i in range(len(string.digits)):
                           subs\_dict[string.digits[i]] = string.digits[i-1]
               for j in range(len(mob_num)):
                           sec_num[j]=subs_dict[mob_num[j]]
               return (sec_num)
 O Generates the secret code for the given mobile number with every digit coded with the next digit.
 • Generates the secret code for the given mobile number with every digit coded with the previous digit.
 O Generates the secret code for the given mobile number with every digit coded with a random digit.
 \bigcirc Generates the secret code for the given mobile number with every digit coded with a special character.
4) What is the output for the given code?
                                                                                                                                  1 point
       import numpy
       mat=numpy.array([[1,2,3],[4,5,6],[7,8,9]])
       def add(mat):
                   sum=0
                   for i in range(2):
                                for j in range(2):
                                            if i==j:
                                                        sum=sum+mat[i][j]
                   return(sum)
       print (add(mat))
 O 15
 O 9
 6
 O 24
5) Which of the following can be used to see the dimension of a numby array named 'arr'?
                                                                                                                                  1 point
 O shape(arr)
 arr.shape
 arr.shape()
6) What happens if we fail to check the anchor case in a recursive function?
                                                                                                                                  1 point
 Results in an infinite loop
 O RunTimeFrror
 O Never gets executed
7) What is the output of the following code?
                                                                                                                                  1 point
  print('ab'.isalpha())
 True
 O False
 O None
 O Error
8) If GOLD is encoded as FNKC, then how is PLATINUM encoded?
 ONKYRGLSK
 ○ OKZSHMUL
 O NJYBGLSK
 OKZSHMTL
9) Which of these statements is true?
                                                                                                                                  1 point
 \bigcirc Recursion can solve only a subset of problems which Iteration can.
 O Recursion is not related to Iteration.
 O Recursion cannot solve the problems that can be solved by iteration.
 • Any problem that Recursion can solve, can also be solved by Iteration
10) Which of the following strategy of play does Tic Tac Toe belong to?
                                                                                                                                  1 point
 O Max-max
 O Min-max
 O Max-min
 O Min-min
You may submit any number of times before the due date. The final submission will be considered for grading.
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