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SEC.: KOC08

ROLL NO. 14

import random

import array

# maximum length of password needed

# this can be changed to suit your password length

MAX\_LEN = 12

# declare arrays of the character that we need in out password

# Represented as chars to enable easy string concatenation

DIGITS = ['0', '1', '2', '3', '4', '5', '6', '7', '8', '9']

LOCASE\_CHARACTERS = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h',

'i', 'j', 'k', 'm', 'n', 'o', 'p', 'q',

'r', 's', 't', 'u', 'v', 'w', 'x', 'y',

'z']

UPCASE\_CHARACTERS = ['A', 'B', 'C', 'D', 'E', 'F', 'G', 'H',

'I', 'J', 'K', 'M', 'N', 'O', 'P', 'Q',

'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y',

'Z']

SYMBOLS = ['@', '#', '$', '%', '=', ':', '?', '.', '/', '|', '~',

'\*', '(', ')']

# combines all the character arrays above to form one array

COMBINED\_LIST = DIGITS + UPCASE\_CHARACTERS + LOCASE\_CHARACTERS + SYMBOLS

# randomly select at least one character from each character set above

rand\_digit = random.choice(DIGITS)

rand\_upper = random.choice(UPCASE\_CHARACTERS)

rand\_lower = random.choice(LOCASE\_CHARACTERS)

rand\_symbol = random.choice(SYMBOLS)

# combine the character randomly selected above

# at this stage, the password contains only 4 characters but

# we want a 12-character password

temp\_pass = rand\_digit + rand\_upper + rand\_lower + rand\_symbol

# now that we are sure we have at least one character from each

# set of characters, we fill the rest of

# the password length by selecting randomly from the combined

# list of character above.

for x in range(MAX\_LEN - 4):

temp\_pass = temp\_pass + random.choice(COMBINED\_LIST)

# convert temporary password into array and shuffle to

# prevent it from having a consistent pattern

# where the beginning of the password is predictable

temp\_pass\_list = array.array('u', temp\_pass)

random.shuffle(temp\_pass\_list)

# traverse the temporary password array and append the chars

# to form the password

password = ""

for x in temp\_pass\_list:

password = password + x

# print out password

print(password)