



REPUBLIC OF TURKEY
GEBZE TECHNICAL UNIVERSITY
FACULTY OF ENGINEERING

CE302 ADVANCED PROGRAMMING
TECHNIQUES FOR ENGINEERS
ASSIGNMENT#1

PROBLEM:

Dear "CE302 Advanced Programming Techniques for Engineers" Class' Students

You are supposed to write a Python Code to generate a random password creator.

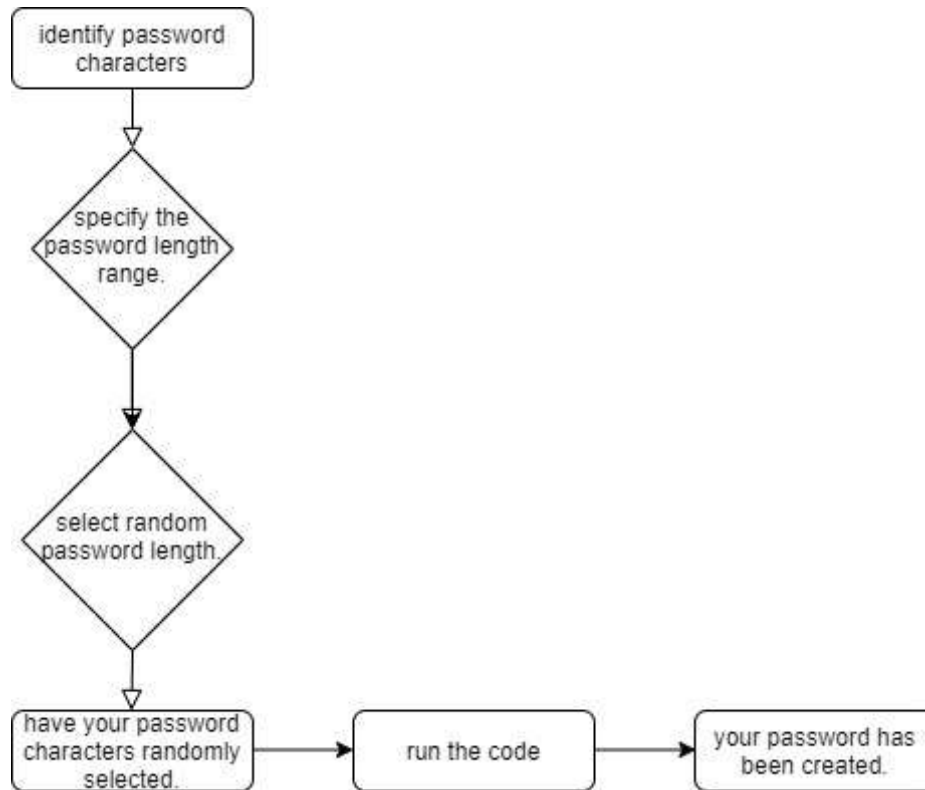
This code will perform and check the details below:

1. Your password length will be between 6-15 unit 1.1. There will be numbers (0,1,2, ...,8,9), letters(a, b, c, d, ..., w, x, y, z) and special characters (@, -, *, +, -, /)
2. Your code will check
 - How many characters do you have?
 - Is it sensitive for small-big letters? (iy is expected to be sensitive)
 - Does your code has letters, numbers, and special characters simultaneously? (it is expected to contain all)
 - Does your code consist of sequencing numbers and letters?
3. You'll write for code taking these instructions into account then your code will generate a password.

Please get any kind of collaboration together.

Good luck.

FLOWCHART:



EXECUTIVE SUMMARY:

In short, the creation of this code is as follows, I used the functions "random" and "string" in python for the password creation program. first, I defined the characters of the password to be created. later, I created a list for the desired password length from us. with the "random" command, I encoded the password length to form between 6 and 15 characters. I created a random password from the characters I defined using the "for" loop. when you run the code, it will generate a password and tell you how many characters your password has. because I use a loop, you will encounter a different sequence of passwords each time you run it.

CODE PART :

In [1]:

```

import random
import string
...
used python embedded functions to create this password creation program.
string.the ascii_letters command prints letters in the alphabet (uppercase and lowercase).
...
letters = string.ascii_letters
print(f" letters is ' {letters}'")
numbers='0123456789'
punctuation ="@-*/+/-/"

```

letters is ' abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ'.

In [2]:

```
#the length of our password will be in the range of 6-15 characters.
password_length=[6,7,8,9,10,11,12,13,14,15]

#randomly selects a password length.
length=random.choice(password_length)
print(f" password length is {length}.")

'''
I used "for i in" to iterate through a list.
the reason I use" range " is to specify the list required to repeat all integers, including

'''

#it selects individual characters up to the length of our password and creates a password.
password='' # '' that means I want him to print the password as an array.
for i in range(length):
    password += random.choice(letters+numbers+punctuation)
print(password)

password length is 14.
B9zdAgILeG73aS
```