Assignment # 7

1. Define a generator which can iterate the numbers, which are divisible by 7, between a given range 0 and n.
2. Define a generator which can reverse the string provided as input.
3. Write a Python program to detect the number of local variables declared in a function.
4. Write a Python function that takes a list and returns a new list with unique elements of the first list.
5. Write a Python function that checks whether a passed string is palindrome or not.
6. Write a Python program to access a function inside a function.
7. Write a Python program that takes any number of arguments and any type and returns the sum.
8. Write a Python program to demonstrate function as a function's argument.
9. A website requires the users to input username and password to register. Write a program to check the validity of password input by users.
   Following are the criteria for checking the password:
   1. At least 1 letter between [a-z]
   2. At least 1 number between [0-9]
   3. At least 1 letter between [A-Z]
   4. At least 1 character from [$#@]
   5. Minimum length of transaction password: 6
   6. Maximum length of transaction password: 12

   Your program should accept a sequence of comma separated passwords and will check them according to the above criteria. Passwords that match the criteria are to be printed, each separated by a comma.
   Example
   If the following passwords are given as input to the program:
   ABd1234@1,a F1#,2w3E*,2We3345
   Then, the output of the program should be:
   ABd1234@1