Data Structure using Python Week 3

1. Write a program which will find all such numbers which are divisible by 7 but are not a multiple of 5,between 2000 and 3200 (both included).The numbers obtained should be printed in a comma-separated sequence on a single line.
2. Write a program which can compute the factorial of a given numbers. The results should be printed in a comma-separated sequence on a single line. Suppose the following input is supplied to the program:
   8
   Then, the output should be:
   40320
3. Write a Python program to construct the following pattern, using a nested for loop.

   ```
   *
   * *
   * * *
   * * * *
   * * * * *
   * * * *
   * * *
   * *
   *
   ```
4. Write a Python program that accepts a word from the user and reverse it.
5. Write a Python program to get the Fibonacci series between 0 to 50.
6. Write a Python program which iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".
7. Write a Python program that accepts a sequence of lines (blank line to terminate) as input and prints the lines as output (all characters in lower case)
8. Write a Python program that accepts a string and calculate the number of digits and letters.
9. Write a Python program to check the validity of password input by users.
   Validation :

   At least 1 letter between [a-z] and 1 letter between [A-Z].
   At least 1 number between [0-9].
   At least 1 character from [$#@].
   Minimum length 6 characters.
   Maximum length 16 characters.
10. Write a program that calculates and prints the value according to the given formula:
    Q = Square root of [(2 * C * D)/H]