Session 3 Exercises

1. Write a program to display all prime numbers from 1 to 100.

2. Ask the user for a string and print out whether this string is a palindrome or not.
   (A palindrome is a string that reads the same forwards and backwards.)

3. Given a string, count all lower case, upper case, digits and special symbols.

4. Write a program to display the n terms of harmonic series and their sum.
   1 + 1/2 + 1/3 + 1/4 + 1/5 ... 1/n

5. Write a program to display the following pattern. Check also with different number of rows.

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    *
   **
  ***
 ****
*****
```

6. Create a dictionary that has a key value pair of letters and the number of occurrences of that letter in a string.

   Given a string “pineapple”. The result should be as:
   {“p”:3, “i”:1, “n”:1, “e”:2, “a”:1, “l”:1}

   Don’t worry about the order of occurrence of letters.