

It is better to remain silent and be thought a fool than to open one's mouth and remove all doubts. Mark Twain

## Homework 07

## [Nested Loop, User Function/ Methods]

Note: Task 1-6 should be done using nested loop.

## Task 1:

Write a program to input a String and print frequency of all letters within that String. For String good
g 1
o 2
o 2
d 1

## Task 2:

Write a program to input two Strings and print characters of first string not existing in second string. Use concept of flag in inner loop

## Task 3:

| Print pattern given on right hand side. Pseudo code is given in lecture notes. | 212 |
| :--- | :---: |
|  | 3212 |
|  | 4321234 |
| 543212345 |  |

## Task 4:

Print pattern given on right hand side. $\quad \mid$

## Task 5:

Print pattern given on right hand side.


## Task 6:

Print pattern given on right hand side.
Hint: Use 2 set of nested loops. One for upper portion and second for lower portion.


## User Functions/ Methods

Task 7: Write a function void printSpaces(int $n$ ) to print $n$ number of spaces in same line using System.out.print and loop

Task 8: Write a function int greaterRandom(int $\boldsymbol{n}$ ) to receive an integer number and return random number greater than passed number.

## Task 9:

Write a program int factorial (int $n$ ) to calculate factorial and return factorial of $n$
Task 10:
Write a program boolean isAlphabet(char c) to find whether c is alphabet or not Task 11:

Write a program boolean isVowel (char c) to find whether c is vowel or not

## Task 12:

Write a program boolean isCaptial (char c) to find whether c is capital letter or not
Task 13:
Write a program boolean isSamll (char c) to find whether c is small letter or not
Task 14:
Write a program boolean isNumber (char c) to find whether c is capital letter or not

Finally test last 5 functions to categorize vowel, capital, small letter or number for any string.

