1. Write a program in Python to accept an integer value in variable N from the user and display its content in the following patterns.

**Sample output:**

```
Enter Integer: 5
1
12
123
1234
12345
```

```
54321
4321
321
21
1
```

```
    1
   121
  12321
 1234321
123454321
```

2. Write a program in Python to accept an integer value in variable N from the user and display its content in the following patterns.

**Sample output:**

```
Enter Integer: 5
1
22
333
4444
55555
```

```
    1
   22
  333
 4444
55555
```

```
    1
   222
  33333
 4444444
555555555
```

3. Write a program in Python to accept a string from a user and display its content in the following patterns.

**Sample output:**

```
Enter String: GOGREEN
G
GO
GOG
GOGR
GOGRE
GOGREE
GOGREEN
```

```
GOGREEN
GOGREE
GOGRE
GOGR
GOG
GO
G
```

```
      G
     GO
    GOG
   GOGR
  GOGRE
 GOGREE
GOGREEN
```

4. Write a program in Python to accept a string from a user and display its content in the following patterns.

**Sample output:**

```
Enter String: WATER
W
 A
  T
   E
    R
```

```
    R
   E
  T
 A
W
```

```
W       W
 A     A
  T   T
   E E
    R
```

5. Write a program in Python to accept a string from the user and show only non vowels (display underscore _ symbol in place of vowel).

**Sample output:**

```
Enter String: WATER
W_T_R
```

```
Enter String: PEACE
P_ _C_
```

6. Write a program in Python to accept a word WRD and a sentence STC as strings from the user. Find the presence or absence of the word WRD in the sentence STC (Without using **`if WRD in STC`** ).

   **Sample output:**

   **`Sentence: A small box in the big box`**
   **`Word: box`**
   **`Status: Found`**

7. Write a program in Python to accept a sentence as a string from the user. Find the total number of words present in the string (Without using **`in`** operator with **`if`**)

   **Sample output:**

   **`Sentence: A small box in the big box`**
   **`Total Number of Words:`** 7

8. Write a program in Python to accept a word WRD and a sentence STC as strings from the user. Find the positions of each occurrence of word WRD in the sentence STC. (Can use split() function)

   **Sample output:**

   **`Sentence: A small box in the big box`**
   **`Word: box`**
   **`Positions: 8, 23,`**

9. Write a program in Python to accept a string S from a user and display an encoded content of S containing the reverse of the first 3 characters and last 3 characters.

   **Sample output:**

| | |
|---|---|
| **`Enter S: HALF OF THE TEAM`**<br>**`Coded S: LAHEAM`** | **`Enter S: MOHAN'S TEAM SCORED 345`**<br>**`Coded S: HOM345`** |

10. Write a program in Python to accept a string S from a user and display an encoded content of S containing the reverse of characters of first half of S and original order of characters of second half of the S.

    **Sample output:**

| | |
|---|---|
| **`Enter S: ABCDEFGHI`**<br>**`Coded S: EFGHIDCBA`** | **`Enter S: ABCDEFGH`**<br>**`Coded S: EFGHDCBA`** |

11. Write a program in Python to accept a string from a user and display the count of occurrence of vowels, digits and consonants in it.

    **Sample output:**

| | |
|---|---|
| **`Enter Message: SAVE WATER`**<br>**`VOWELS: 4`**<br>**`CONSONANTS: 5`**<br>**`DIGITS: 0`** | **`Enter Message: 10 HAFTE 10 BAJE`**<br>**`VOWELS: 4`**<br>**`CONSONANTS: 5`**<br>**`DIGITS: 4`** |

12. Write a program in Python to accept a string from a user and check if it is Palindrome or not.

    **Sample output:**

| | |
|---|---|
| **`Enter String: NITIN`**<br>**`It is a PALINDROME`** | **`Enter String: DELHI`**<br>**`It is not a PALINDROME`** |

13. Write a Python code to create a two player word guessing game with the help of following steps.
    1. Accept a string **Str** from User1 [accept only those strings, which are less than 10 alphabets]
    2. Scroll the screen with the help of print statements to hide the User1's string.

3. Display the content of string by showing consonants' position as underscore _ and vowels as it is. Name it as **GuessedStr**
4. Accept a single alphabet from User2
5. If alphabet entered by the User2 matches with one of the alphabets of User1's string, re-display the GuessStr with the alphabet at appropriate place
6. Repeat steps 4 and 5 till the user consumes his 10 chances of guessing all the correct letters of **Str**.
7. At the end display score as 20 - No. of attempts by User2. Deduct 2 points for every re-input of the same alphabet again.

**Sample output:**

```
User1 String: WATER CONSERVATION
Re-Enter [Not more than 10 letters]
User1 String: WATER
:
:
Hint: _A_E_
User2 Guess [1]: U
** U not matching with any
User2 Guess [2]: W
Hint: WA_E_
User2 Guess [3]: K
** K not matching with any
User2 Guess [4]: W
** You lose 2 points for re-entering the same letter
User2 Guess [5]: R
Hint: WA_ER
User2 Guess [6]: T
Great - Well done, you guessed right, it is WATER
Your Score: 12
[i.e. Full score 20 - Penalty 2 - Number of Times 6]
```

**IMPORTANT: REFER TO MORE QUESTIONS GIVEN IN ASSIGNMENT BOOKLET**

General Instructions:

i. Type the solutions of all the problems using **Python** Language on **Python IDLE** or **colab.research.google.com**

ii. Type in the following on top of each of your program as comment lines

```
# ------------------------------------------------------------#
# List-Program No     : L3-P1
# Developed By        : Sukrit Joy
# Date                : 17-Aug-2023
# ------------------------------------------------------------#
```

iii. On successful execution with meaningful data, **copy** and **paste** the sample output at the bottom of the program as comment lines.

iv. "**Turn in**" the softcopy of the programs as a single document in response to this assignment submission with each program on separate pages. Once verified by the teacher, take out a hardcopy of **each program on separate pages** from the printer and get them signed by the respective computer teacher. Add all the printouts in the practical file and get the Index entry also signed.

v. Recommended Font, "**Courier New**", Style "**Bold**" Size "**10**" for all programs with single line spacing. Default indentation **2 Character** only.