

1. Write a Python program to find those numbers which are divisible by 8 and multiple of 5, between 1000 and 2000 (both included)
2. Write a Python program to guess a number between 1 to 9. Note : User is prompted to enter a guess. If the user guesses wrong then the prompt appears again until the guess is correct, on successful guess, user will get a "Well guessed!" message, and the program will exit.
- 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. (should not use any functions)
5. Write a Python program which takes two digits m (row) and n (column) as input and generates a two-dimensional array. The element value in the i-th row and j-th column of the array should be $i*j$. Note :
 $i = 0, 1 \dots, m-1$
 $j = 0, 1, n-1$.

Test Data : Rows = 3, Columns = 4

Expected Result : `[[0, 0, 0, 0], [0, 1, 2, 3], [0, 2, 4, 6]]`

6. Write a Python program that accepts a string and calculate the number of digits and letters.

Sample Data : SRMIST 2022

Expected Output :

Letters 6

Digits 4

7.

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.

Sample output

Input your password srmist@2017

Not a Valid Password

Input your password Srmist@2022

Valid Password

8. Write a Python program to find numbers between 100 and 400 (both included) where each digit of a number is an even number. The numbers obtained should be printed in a comma-separated sequence.

9. Write a Python program to convert month name to a number of days.

10. Write a Python program to sum of two given integers. However, if the sum is between 105 to 200 it will return 200.

11. Write a Python program to construct the following pattern, using a nested loop number.

Expected Output:

999999999

888888888

7777777

666666

55555

4444

333

22

1

12. Write a Python program to create a histogram from a given list of integers

13. Write a Python program that will return true if the two given integer values are equal or their sum or difference is 5.
14. Write a Python program to compute the distance between the points (x1, y1) and (x2, y2).
15. Function that takes a sequence of numbers and determines whether all are different from each other
16. Write a Python program to count the number of each character of a given text
17. Write a Python program that accept a positive number and subtract from this number the sum of its digits and so on. Continues this operation until the number is positive.
18. Write a Python program to find the digits which are absent in a given mobile number.
19. Write a Python program to reverse the digits of a given number and add it to the original, If the sum is not a palindrome repeat this procedure
20. Write a Python program to print the length of the series and the series from the given 3rd term, 3rd last term and the sum of a series.