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Python Conditions:

1. Take values of the **length & breadth of a rectangle** from user input and check if it is square or not.
2. Take three integer values from the user and print the **greatest** among them.
3. A student will not be allowed to sit in an exam if his/her attendance is less than 75%.
4. A school has the following **rules** for the grading system:

Below 25 – F, 25 to 44 – E, 45 to 49 – D, 50 to 59 – C, 60 to 79 – B, 80 to 89 - A, Above 90 - A+

Now, Ask the user to enter marks and print the corresponding grade.

Loop Problem:

5. Print the following pattern using **for and while** loop.

   1 2 3 4 5 6 7

   1 2 3 4 5 6

   1 2 3 4 5

   1 2 3 4

6. Display numbers from -100 to -10 using **for loop**.
7. Write a program to **sum** all prime numbers within a range of 10 to 1000.
8. Find the **factorial** of an n! (Hint, n=7: 7*6*5*4*3*2*1).
9. **Reverse** a given integer number 27956240710.
10. Print the following pattern using for and while loop.

    # # #

    # # # #

    # # #

    # #

11. Display the Fibonacci series of 15 elements using the for and while loop.

Python inbuilt Data Structure:

12. Remove 2 and add 3 to the list and replace True with False.
    Li = [1,3,5, [2,3], True]
    Output = [1,3,5, [3,3], False]
13. Find the intersection (common) of two sets.
    S1 = {1,4,6,8}
    S2 = {True, 1,2,10}
14. Input a list from the user then Remove duplicates from a list and create a set and find the max number. User_input = [1,9,3,4,5,200,54]
15. Rename the key of a dictionary.
    Dict = { "name": "Shakil", "age":27, "city": “Berlin”, "country": "Germany" }
    Write a program to rename a key ‘country’ to a ‘region’ in the following dictionary.
16. Creating a data frame using the list.
    num = [10,100,300] (column name is number)
17. Change the value of a key in a given dictionary.
    Write a Python program to change ‘age’ to 28 in the following dictionary.
    Dict = { "name": "Shakil", "age":27, "city": “Berlin”, "country": "Germany" }