Control and loop statements

1. Write a Python program to construct the following pattern, using a nested for loop.

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2. Write a Python program that accepts a word from the user and reverse it.

3. Write a Python program that prints all the numbers from 0 to 6 except 3 and 6.

4. Write a Python program which iterates the integers from 1 to 50. For multiples of three print "Fizz" instead of the number and for the multiples of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".  
Sample Output :   
fizzbuzz  
1  
2  
fizz  
4   
buzz

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.., 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 to reverse a number.

### 7. Write a program to print n natural number in descending order using a while loop.

### 8. Write a program that appends the square of each number to a new list.

### 9.Using while loop print numbers from 1 to 10 and store it in List.

### 10. Write a program to prompt for a score between 0.0 and 1.0. If the score is out of range, print an error message. If the score is between 0.0 and 1.0, print a grade using the following table:

### Score Grade

### 41 >= 0.9 A

### >= 0.8 B

### >= 0.7 C

### >= 0.6

### D < 0.6 F

### Enter score: 0.95 A

### Enter score: perfect Bad score

### Enter score: 10.0 Bad score

### Enter score: 0.75 C Enter score: 0.5 F

### Run the program repeatedly as shown above to test the various different values for input

### 11. Take the following Python code that stores a string: str = 'X-DSPAM-Confidence:0.8475' Use find and string slicing to extract the portion of the string after the colon character and then use the float function to convert the extracted string into a floating point number

### 12. Rewrite the grade program from the using a function called computegrade that takes a score as its parameter and returns a grade as a string. Score Grade >= 0.9 A >= 0.8 B >= 0.7 C >= 0.6

### 13. Write a program which repeatedly reads numbers until the user enters “done”. Once “done” is entered, print out the total, count, and average of the numbers. If the user enters anything other than a number, detect their mistake using try and except and print an error message and skip to the next number.

### Enter a number: 4

### Enter a number: 5

### Enter a number:

### bad data Invalid input

### Enter a number: 7

### Enter a number: done

### 16 3 5.333333333333333

### 14. Write another program that prompts for a list of numbers as above and at the end prints out both the maximum and minimum of the numbers instead of the average.

15. Write a Python function to multiply all the numbers in a list.

16. Write a Python function that accepts a string and calculate the number of upper case letters and lower case letters.

17. Write a Python function that takes a number as a parameter and check the number is prime or not

18. Write a program to create a function show\_employee() using the following conditions.

* It should accept the employee’s name and salary and display both.
* If the salary is missing in the function call then assign default value 9000 to salary

19. Create an outer function that will accept two parameters, a and b

Create an inner function inside an outer function that will calculate the addition of a and b

At last, an outer function will add 5 into addition and return it

20. Write a program to create function func1() to accept a variable length of arguments and print their value.