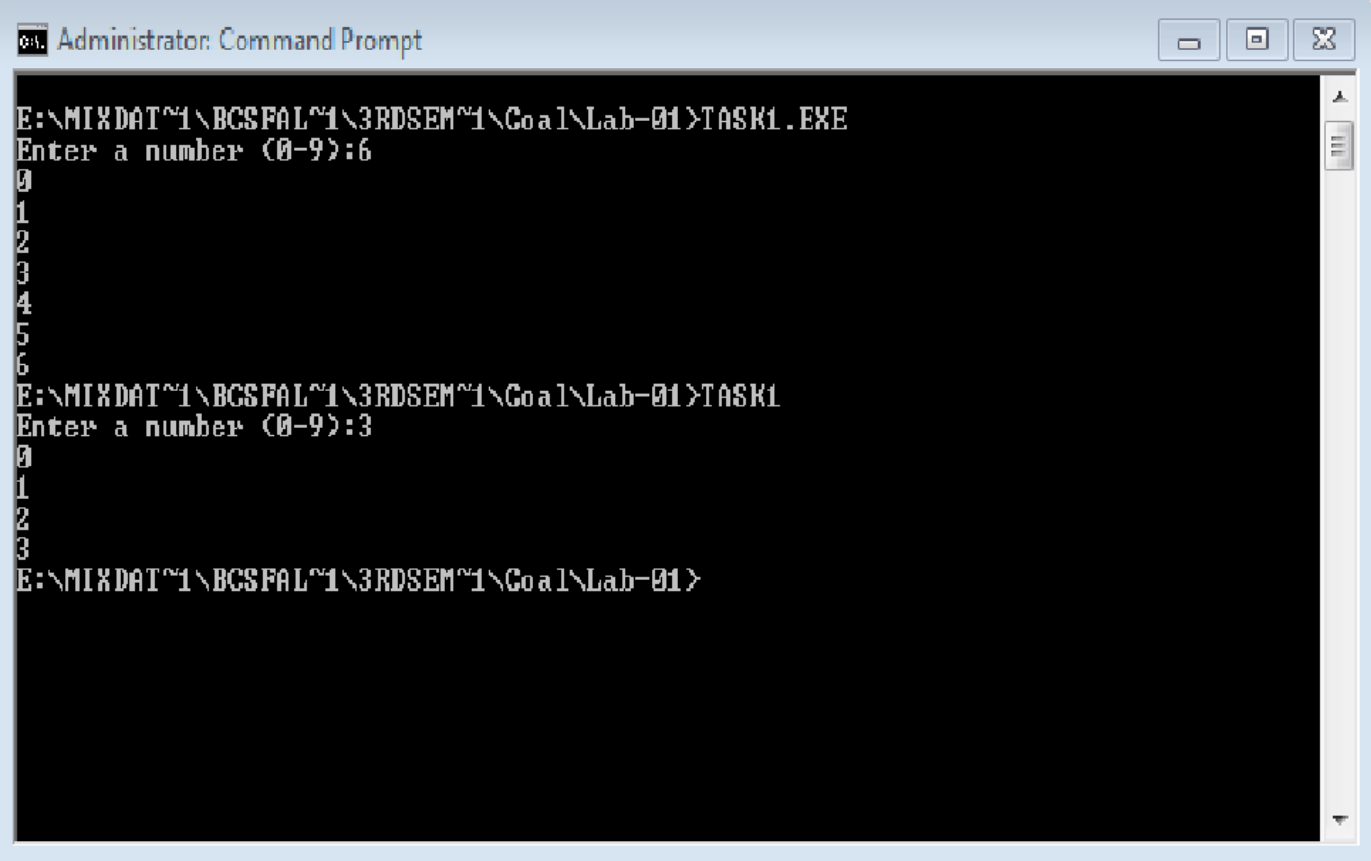
Lab # 3

Task 1

Write a program that

- **a)** Take input a number from 0-9
- **b)** Display counting from 0 to that number.

Sample execution:



Task 2

Write a program that

- **a)** Take two inputs only digits
- **b)** Display the sum of given digits, if sum of given digits is greater than 9 then your program shows an error message.

Sample execution:

i) Enter first digit: 5
Enter Second digit: 6
Error! Sum is greater than 9

ii) Enter first digit: 3
Enter Second digit: 4
The sum is 7

Task 3

Write a program that

a) Take two digits from user as input and one operator (+ or -)

b) If operator is + than program should display there sum or if operator is – than your program display there difference.[assume that the result of given operator is in range of 0 to 9]

Sample execution:

i)
Enter two digits: 34
Enter operator: +
Sum is 7

ii)
Enter two digits: 62
Enter operator: -
Difference is 4

Task 4

Write an Assembly Language Program that reads a string of characters terminated by CR and display it in reverse order.

Sample execution:

Enter a character: **PUCIT**

In reverse order: TICUP

Task 5

Write an Assembly Language Program that reads a string of characters terminated by CR and display the count of vowel character [assume that the number of vowel character in string are less than 10]

Sample execution:

Enter a String: **coal is interesting subject.**

Vowel Character are: **9**

Task 6

Write an Assembly Language Program that reads a string of characters terminated by CR and display it's all words with reverse order.

Sample execution:

Enter a String: **COAL is interesting subject**

Now String is: **LAOC si gnitserstni tcejbus**

Task 7

Write a program that ask user to enter two numbers (0 to 9) and check that user enter correct character. If any enter character is wrong, then displays an error message. If both are in range, then check that the first entered number is less than or equal to second entered number. If not, then display an error message. If yes, then display all numbers between first number and second number. At the end ask user to exit or restart. If user enters numbers out of range three times consecutively then your program should exit automatically by displaying an error.

Sample execution of program:

```
Enter the 1st number (0to9):4
Enter the 2nd number (0to9):8
4
5
6
7
8
Do you want to exit (y) or restart (n): y
Enter the 1st number (0to9): a
Sorry you have entered a wrong character.
Do you want to exit (y) or restart (n): y
Enter the 1st number (0to9):4
Enter the 2nd number (0to9): f
Sorry you have entered a wrong character.
Do you want to exit (y) or restart (n): y
Enter the 1st number (0to9):5
Enter the 2nd number (0to9):4
First is greater than second number
Do you want to exit (y) or restart (n): y
Enter the 1st number (0to9):5
Enter the 2nd number (0to9):5
5
Do you want to exit (y) or restart (n): y
Enter the 1st number (0to9):0
Enter the 2nd number (0to9): a
Sorry you have entered a wrong character.
Do you want to exit (y) or restart (n): y
Enter the 1st number (0to9): j
Sorry you have entered a wrong character.
Do you want to exit (y) or restart (n): y
Enter the 1st number (0to9):0
Enter the 2nd number (0to9): k
Sorry you have entered a wrong character.
You have entered consecutively three times wrong character, so program is forcefully
aborted (exited).
```