

Lab 04

Loop

The 'Loop' instruction provides a simple way to repeat a block of statements a specific number of times. To do this, first we have to put a value in CX (count register) which will track the number of times the block of instructions will execute.

Instruction	Meaning	Examples
LOOP	Keep executing this instruction including the instruction of the target label until the CX register becomes zero.	MOV CX, 2345H HERE: NOP LOOP HERE

Example:

C code

```
int j;  
  
j = 0;  
while ( j < 10 )  
{   j++  
;  
}
```

Assembly code

```
MOV AL, 0  
MOV CX, 10  
  
INCREMENT:  
  
ADD AL, 1  
  
LOOP INCREMENT
```

- **Task 1**

Write a program to print all the alphabets from A-Z or a-z.

- **Task 2**

Create an array of five elements and find the sum of all elements of the array.

- **Task 3**

Write a program to find out the summation of a series $1+3+5+7+9$.

- **Task 4**

A palindrome is a word that is same when read from both ends. Example: 'RACECAR'.

Write a program that will take a string from a user and determine whether the word is a palindrome. The output may be a 'Yes' or a 'No'.

Example:

racecar

yes

hellyeah

no