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Course Code VSEC102

Credits 2





Anjuman-I-Islam's

M. H. Saboo Siddik College of Engineering

## C programming

Presented By:

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Sem-I



# Module-03 Functions

Lab Outcomes: Learners will be able to

- 1. Illustrate the basic terminology used in computer programming.
- 2. Use different data types in a computer program.
- 3. Design programs involving decision structures, loops and functions.
- 4. Implement Arrays, String, and Structure
- 5. Describe the dynamics of memory by the use of pointers.
- 6. Use different data structures and create/update basic data files.

3	Functions and Paramete r	<ul> <li>3.1 Function -Introduction of Function, Function Main, defining a Function, accessing a Function, Function Prototype, Passing Arguments to a Function, Recursion.</li> <li>3.2 Storage Classes –Auto, Extern, Static, Register</li> </ul>	05	LO3
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WAP to define a counter function to print how many times the function is called. use static storage classes.





## **ALGORITHM**

#### 1.Start

- 2. Define the counter function:
  - •Declare a static integer variable count and initialize it to 0.
  - •Increment count by 1.
  - •Print the value of count.
- 3. Define the main function:
  - •Print a header message: "\*\*\* Storage Class \*\*\*".
  - •Call the counter function four times.

#### 4. stop

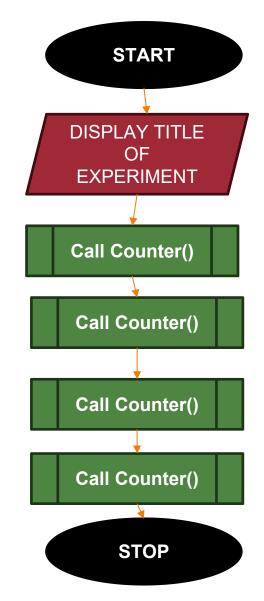
#### **Explanation:**

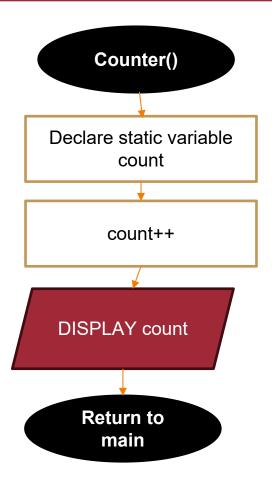
- •The static keyword makes count retain its value between multiple calls to counter(), allowing it to accumulate the number of times counter has been called.
- •Each call to counter increments count by 1 and prints the updated value.





## **FLOWCHART**







```
Expt 6 - Task 1
      Module 2 : Storage Classes
      Aim: WAP to define a counter function to print how
          many times the function is called, use storage classes.
  #include<stdio.h>
-void counter(){
      static int count = 0;
      count++;
      printf("Counter Function Called: %d\n", count);
                                                        □ "D:\2024-25\C programming X
int main() {
                                                                              *** Storage Class ***
      printf("\t\t\t *** Storage Class *** \n\n");
                                                       Counter Function Called: 1
                                                       Counter Function Called: 2
                                                       Counter Function Called: 3
      counter();
                                                       Counter Function Called: 4
      counter();
      counter();
                                                       Process returned 0 (0x0)
                                                                                execution time : 2.447 s
      counter();
                                                       Press any key to continue.
      return 0;
```







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