S.No: 3	Exp. Name: ***C program to create dynamic memory allocation using calloc( )***	Date:2023-04-28

Aim:

Write a C program to create dynamic memory allocation using calloc( )

Source Code:

calloc.c

```
#include <stdio.h>
#include <stdlib.h>

int main() {
   int *p,i,n,sum=0,j=1,a[10];
   printf("Enter the number of elements: ");
   scanf("%d",&n);
   p=(int*)calloc(n,sizeof(int));
   for(i=0;i<n;i++)
   {
      printf("Enter element %d: ",j);
      scanf("%d",p+i);
      sum=sum+*(p+i);
      j++;
   }
   printf("The sum of the array is %d.\n",sum);
    // get number of elements from user

    // allocate memory for array using calloc()

    // check if memory allocation was successful

    // get input values for array from user

    // perform operation on array values

    // print out the sum of the array values

    // free memory allocated for array

}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the number of elements: 5
Enter element 1: 1
Enter element 2: 2
Enter element 3: 3
Enter element 4: 4
Enter element 5: 5
The sum of the array is 15.

ID: 22K61A0597
2022-2026-CSE-B
Sasi Institute of Technology and Engineering (Autonomous)

Test Case - 2
User Output
Enter the number of elements: 4
Enter element 1: 11
Enter element 2: 22
Enter element 3: 33
Enter element 4: 44
The sum of the array is 110.