Aim:

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

Source Code:

calloc.c

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

int main() {
    int *p,n,sum=0,i,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.

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.