Aim:

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

Source Code:

malloc.c

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

int main() {
int *p,n,i,sum=0;
float avg;
printf("Enter the number of integers: ");
scanf("%d",&n);
p=(int*)malloc(n*sizeof(int));
if(p==0)
{
    printf("Sorry!Unable to allocate memory");
    exit(0);
}
printf("Enter %d integers:\n",n);
for(i=0;i<n;i++)
{
    scanf("%d",p+i);
    sum+=*(p+i);
}
avg=(float)sum/n;
printf("The sum of the integers is %d\n",sum);
printf("The average of the integers is %.2f",avg);
printf("\n");
free(p);
return 0;
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
Enter the number of integers: 3
Enter 3 integers: 1 5 3
The sum of the integers is 9
The average of the integers is 3.00

Test Case - 2
User Output
Enter the number of integers: 5
Enter 5 integers: 1 2 3 4 5
The sum of the integers is 15

The average of the integers is 3.00