

ActivitiesText EditorApr 29 14:33Assignment3.cpp~/11260Save

```
1 /*
2 Assignment 3
3 Write a program that reads a group of numbers from the user and places them in an
4 array of type float. Once the numbers are stored in the array, the program should average
5 them and print the result. Use pointer notation wherever possible.
6 Name-Dev Sarode
7 Division-12
8 Roll no-11260
9 Date-25/02/2025
10 */
11 #include <iostream>
12 using namespace std;
13
14 class Averagecalculator{
15 private:
16     float* arr;
17     int size;
18 public:
19     //Contructor
20     Averagecalculator (int n) : size(n){
21         arr = new float(n);
22     }
23     //Destructor
24     ~Averagecalculator(){
25         delete[] arr;
26         cout<<"deleted"<<endl;
27     }
28     //Taking numbers input from user
29     void inputnumbers(){
30         cout << "Enter" << size << "numbers:" << endl;
31         float* end = arr + size;
32         for(float* ptr = arr; ptr!= end;++ptr){
33             cin >> * ptr;
34         }
35     }
36     //Calculate average
37     float calculateAverage() const {
```

C++ Tab Width: 8 Ln 31, Col 36 INS

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Assignment3.cpp

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```
24 ~Averagecalculator(){
25     delete[] arr;
26     cout<<"deleted"<<endl;
27 }
28 //Taking numbers input from user
29 void inputnumbers(){
30     cout << "Enter" << size << "numbers:" << endl;
31     float* end = arr + size;
32     for(float* ptr = arr; ptr!= end;++ptr){
33         cin >> * ptr;
34     }
35 }
36 //Calculate average
37 float calculateAverage() const {
38     float sum = 0.0f;
39     float* end = arr + size;
40     for (float* ptr = arr; ptr != end; ++ptr) {
41         sum += *ptr;
42     }return sum / size;
43 }
44 };
45
46 int main(){
47     int n;
48     //Taking number of elements in array from user
49     cout<<"Enter size of the array:"<<endl;
50     cin>>n;
51     if(n<=0){
52         cout<<"Invalid number of elements:";
53         return 1;
54     }
55     Averagecalculator calculator(n);
56     calculator.inputnumbers();
57     float average = calculator.calculateAverage();
58     cout << "Average is:" <<average << endl;
59     return 0;
60 }
```

```
fe@pict-OptiPlex-3020:~/11260$ g++ Assignment3.cpp
```

```
fe@pict-OptiPlex-3020:~/11260$ ./a.out
```

```
Enter size of the array:
```

```
5
```

```
Enter 5 numbers:
```

```
6
```

```
56
```

```
9
```

```
5
```

```
2
```

```
Average is:15.6
```

```
deleted
```

```
fe@pict-OptiPlex-3020:~/11260$
```