

Debug C++ practice.cpp classwork.cpp

```
1 #include <stdio.h>
2 #include <math.h>
3 #define pi 3.14
4 int main()
5 {
6     int shape, radius, height, num, i;
7     float area, vol;
8     printf("How many shapes you want to access: ");
9     scanf("%d", &num);
10    for(i=1; i<=num; i++)
11    {
12        printf("Choose the shape- ");
13        printf("\n1-Cylinder\n2-Cone\n3-Sphere\n");
14        scanf("%d", &shape);
15    }
16    switch(shape)
17    {
18        case 1:
19            printf("Enter radius and height of Cylinder : ");
20            scanf("%d%d", &radius, &height);
21            area = (2*pi*radius*height)+(2*pi*radius*radius);
22            vol = pi*radius*radius*height;
23            break;
24        case 2:
25            printf("Enter radius and height of Cone : ");
26            scanf("%d%d", &radius, &height);
27            area = pi*radius*(radius+ (sqrt((height*height)+(radius*radius))));
28            vol = (pi*radius*radius*height)/3;
29            break;
30        case 3:
31            printf("Enter radius of the Sphere : ");
32            scanf("%d", &radius);
33            area = 4*pi*radius*radius.
```

Resources

Compilation results...

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Bhavya\Desktop\classwork.exe
- Output Size: 133.5390625 KiB
- Elapsed Time: 3.06s
```

```
12
13     printf("Choose the shape- ");
14     printf("\n1-Cylinder\n2-Cone\n3-Sphere\n");
15     scanf("%d",&shape);
16
17     {
18         switch(shape)
19
20             case 1:
21                 printf("Enter radius and height of Cylinder : ");
22                 scanf("%d%d",&radius,&height);
23                 area = (2*pi*radius*height)+(2*pi*radius*radius);
24                 vol = pi*radius*radius*height;
25                 break;
26
27             case 2:
28                 printf("Enter radius and height of Cone : ");
29                 scanf("%d%d",&radius,&height);
30                 area = pi*radius*(radius+ (sqrt((height*height)+(radius*radius))));
31                 vol = (pi*radius*radius*height)/3;
32                 break;
33
34             case 3:
35                 printf("Enter radius of the Sphere : ");
36                 scanf("%d",&radius);
37                 area = 4*pi*radius*radius;
38                 vol = (4/3)*pi*radius*radius;
39                 break;
40
41     }
42
43     return 0;
44 }
```

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Compilation results...

```
-----
- Errors: 0
- Warnings: 0
- Output Filename: C:\Users\Bhavya\Desktop\classwork.exe
- Output Size: 133.5390625 KiB
- Compilation Time: 3.06s
```

C:\Users\Bhavya\Desktop\classwork.exe

```
How many shapes you want to access: 2
Choose the shape-
1-Cylinder
2-Cone
3-Sphere
1
Enter radius and height of Cylinder : 5 4
The area is : 282.600006
The volume is : 314.000000
Choose the shape-
1-Cylinder
2-Cone
3-Sphere
3
Enter radius of the Sphere :45
The area is : 25434.000000
The volume is : 6358.500000
-----
Process exited after 23.55 seconds with return value 0
Press any key to continue . . .
```

```
c++ practice.cpp classwork.cpp
1 #include<stdio.h>
2 #include<string.h>
3
4 struct getname
5 {
6     char name[10];
7 };
8 int main()
9 {
10    struct getname arr[100];
11    int n;
12    int cnt1 = 0,cnt2 = 0,cnt3 = 0;
13    int a[100];
14    printf("Students are required to fill in their details and choice of electives\n");
15    printf("Choices for electives: \n");
16    printf("1.Internet of things\n2.Advanced Java\n3.Advance DS\n");
17
18    int num;
19    printf("Enter the total number of students: ");
20    scanf("%d",&num);
21    for(int i=0;i<num;i++)
22    {
23        printf("Enter the name of student : \n");
24        scanf("%s",&arr[i].name);
25        printf("Enter your choice : \n");
26        scanf("%d",&n);
27        a[i] = n;
28        if(a[i] == 1)
29        {
30            cnt1++;
31        }
32        else if(a[i] == 2)
33    }
}

```

```
g C++ practice.cpp classwork.cpp
31 }
32 else if(a[i] == 2)
33 {
34     cnt2++;
35 }
36 else if(a[i] == 3)
37 {
38     cnt3++;
39 }
40 }

41 printf("Operation 1\n");
42 int x;
43 printf("Enter the choice of elective you want to get the list for: \n");
44 scanf("%d",&x);
45 for (int i = 0; i < num; i++)
46 {
47     if(a[i] == x)
48     {
49         printf(">%s\n",arr[i].name);
50     }
51 }
52 }

53 printf("Operation 2\n");
54 if(cnt1<3)
55 {
56     cnt1 = 0;
57     printf("All elective one students are required to chose different elective.\n");
58     for(int i=0;i<num;i++)
59     {
60         if(a[i] == 1)
61         {
62             printf("%c Select from elective 2 or 3: \n", arr[i].name);
63         }
64     }
65 }
```

Resources Close

Compilation results...

```
practice.cpp classwork.cpp
cnt1 = 0;
printf("All elective one students are required to chose different elective.\n");
for(int i=0;i<num;i++)
{
    if(a[i] == 1)
    {
        printf("%s Select from elective 2 or 3: \n",arr[i].name);
        scanf("%d",&n);
        a[i] = n;
        if(n == 3)
            cnt3++;
        else if(n == 2)
            cnt2++;
    }
}
if(cnt2<3)
{
    cnt2 = 0;
    printf("All elective two students are required to chose different elective.\n");
    for(int i=0;i<num;i++)
    {
        if(a[i] == 2)
        {
            printf("%s Select from elective 1 or 3: \n",arr[i].name);
            scanf("%d",&n);
            a[i] = n;
            if(n == 1)
                cnt1++;
            else if(n == 3)
                cnt3++;
        }
    }
}
```

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globals)

Debug c++ practice.cpp classwork.cpp

```
89     }
90 }
91 if(cnt3<3)
92 {
93     cnt3 = 0;
94     printf("All elective three students are required to chose different elective.\n");
95     for(int i=0;i<num;i++)
96     {
97         if(a[i] == 3)
98         {
99             printf("%s Select from elective 2 or 1: \n",arr[i].name);
100            scanf("%d",&n);
101            a[i] = n;
102            if(n == 1)
103                cnt1++;
104            else if(n == 2)
105                cnt2++;
106        }
107    }
108 }
109 printf("Operation 3\n");
110 printf("Number of students in elective one : %d \n",cnt1);
111 printf("Number of students in elective two : %d \n",cnt2);
112 printf("Number of students in elective three : %d \n",cnt3);
113
114 printf("Operation 4\n");
115 printf("List of students in elective 1: \n");
116 for ( int i = 0; i < num; i++)
117 {
118     if(a[i] == 1)
119     {
120         printf(">%s\n",arr[i].name);
121     }
}
```

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Compilation results...

- Errors: 0

Warnings: 0

c++ practice.cpp classwork.cpp

```
112     printf("Number of students in elective three : %d \n",cnt3);  
113  
114     printf("Operation 4\n");  
115     printf("List of students in elective 1: \n");  
116     for (int i = 0; i < num; i++)  
117     {  
118         if(a[i] == 1)  
119         {  
120             printf(">%s\n",arr[i].name);  
121         }  
122     }  
123  
124     printf("List of students in elective 2: \n");  
125     for (int i = 0; i < num; i++)  
126     {  
127         if(a[i] == 2)  
128         {  
129             printf(">%s\n",arr[i].name);  
130         }  
131     }  
132  
133     printf("List of students in elective 3: \n");  
134     for (int i = 0; i < num; i++)  
135     {  
136         if(a[i] == 3)  
137         {  
138             printf(">%s\n",arr[i].name);  
139         }  
140     }  
141     return 0;  
142  
143 }
```

C:\Users\Bhavya\Desktop\classwork.exe

All elective one students are required to chose different elective.
aakanksha Select from elective 2 or 3:

2

All elective two students are required to chose different elective.
bhavya Select from elective 1 or 3:

3

aakanksha Select from elective 1 or 3:

1

All elective three students are required to chose different elective.
bhavya Select from elective 2 or 1:

2

Operation 3

Number of students in elective one : 1

Number of students in elective two : 1

Number of students in elective three : 0

Operation 4

List of students in elective 1:

>aakanksha

List of students in elective 2:

>bhavya

List of students in elective 3:

Process exited after 39.01 seconds with return value 0

Press any key to continue . . .