PRN:2020BTEIT00041

Name: Om Vivek Gharge

Hybrid Inheritance

CODE:

```cpp
/*
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*/

#include<bits/stdc++.h>
using namespace std;

class Student
{
    public:
    string name;
    int roll;
    Student()
    {
        cout<<"Enter the name of Student : "<<endl;
        cin>>name;
        cout<<"Enter the roll of Student : "<<endl;
        cin>>roll;
    }
    void display()
    {
        cout<<"Name : "<<name<<endl;
        cout<<"Roll no. : "<<roll<<endl;
    }
};

class test : virtual public Student
{
    public:
    int marks;
    test(){};
    void getmarks()
    {
        cout<<"Enter the marks of Student : "<<endl;
        cin>>marks;
    }
    void displaytest()
```

```cpp
39          {
40              cout<<"The marks obtained in the test are : "<<marks<<endl;
41
42          }
43  };
44
45  class sports : virtual public Student
46  {
47      public:
48      int score;
49      sports(){};
50      void getscore()
51      {
52          cout<<"Enter the score of Student in sports : "<<endl;
53          cin>>score;
54      }
55      void displaysports()
56      {
57          cout<<"The score obtained in sports is : "<<score<<endl;
58
59      }
60  };
61
62  class result : public test,public sports
63  {
64      public:
65      int total;
66      void displaytotal()
67      {
68          total = marks + score;
69          cout<<"The Total of score and marks obtained by student is : "<<total<<endl;
70          cout<<"The Average of score and marks obtained by student is : "<<total/2.0<<endl;
71      }
72      void final()
73      {
74          cout<<"\n\n--------------RESULT--------------"<<endl;
75          display();
76          displaytest();
77          displaysports();
78          displaytotal();
79          cout<<"----------------------------------"<<endl;
80          cout<<"----------------------------------"<<endl;
81      }
82  };
83
84  int main()
85  {
86      result s;
87      s.getmarks();
88      s.getscore();
89      s.final();
90
91      return 0;
92  }
```

OUTPUT:

```
Enter the name of Student :
Om
Enter the roll of Student :
41
Enter the marks of Student :
99
Enter the score of Student in sports :
99


--------------RESULT--------------
Name : Om
Roll no. : 41
The marks obtained in the test are : 99
The score obtained in sports is : 99
The Total of score and marks obtained by student is : 198
The Average of score and marks obtained by student is : 99
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```