

1. Write a C++ program to create a base class Student, from this inherit a new class called Exams, containing Marks1, Marks2 and Marks3 as its data members. Also create another class called Sports having Sports_grade as its data member. Now, create yet another class but a derived class of Exams and Sports classes and call it as Awards. Use appropriate member functions in all classes. You can use the Regno, Name, Semester and Branch as the members of the base class.

```
#include <iostream>
using namespace std;

class Student
{public:
int Regno;
char Name[20];
int Semester;
char Branch[20];
void GetData() {
cout << "Enter Regno: ";
cin >> Regno;
cout << "Enter Name: ";
cin >> Name;
    cout << "Enter Semester: ";
cin >> Semester;
cout << "Enter Branch: ";
cin >> Branch;
}
};

class Exams : public virtual Student
{public:
int Marks1;
int Marks2;
int Marks3;
void GetMarks() {
    cout << "Enter Marks1: ";
```

```

        cin >> Marks1;
        cout << "Enter Marks2: ";
        cin >> Marks2;
        cout << "Enter Marks3: ";
        cin >> Marks3;
    }
};

```

```

class Sports : public virtual Student
{public:
char Sports_grade;
void GetSports() {
    cout << "Enter Sports Grade: ";
    cin >> Sports_grade;
}
};

```

```

class Awards : public Exams, public Sports
{public:
void Display() {
    cout << "Name: " << Student::Name << endl;
    cout << "Regno: " << Student::Regno << endl;
    cout << "Branch: " << Student::Branch << endl;
        cout << "Exams Semester: " << Exams::Semester << endl;
    cout << "Marks1: " << Marks1 << endl;
    cout << "Marks2: " << Marks2 << endl;
    cout << "Marks3: " << Marks3 << endl;
        cout << "Sports Semester: " << Sports::Semester << endl;
    cout << "Sports Grade: " << Sports_grade << endl;
}
};

```

```

int main()
{ Awards a1;
  a1.GetData();
}

```

```
a1.GetMarks();  
a1.GetSports();  
a1.Display();  
  
return 0;  
}
```

OUTPUT