

```
#include <iostream>
#include <string>
using namespace std;
class Student {
```

```
    Private:
```

```
        string name;
```

```
        int age;
```

```
        int rollNo;
```

```
        float gpa;
```

```
    Public:
```

```
        Student();
```

```
        Student(string n, int a, int r,  
        float g = 0.0);
```

```
        ~Student();
```

```
        void setName(string n);
```

```
        void setAge(int a);
```

```
        void setRollNo(int r);
```

```
        void setGPA(float g);
```

```
        string getName();
```

```
        int getAge();
```

```
        float getGPA();
```

```
        int getRollNo();
```

```
        void displayInfo();
```

```
        void displayGrade();
```

```
};
```

```

#include "Student.h"
Student::Student() {
    name = "Unknown";
    age = 0;
    rollNo = 0;
    gpa = 0.0;
Student::Student(string n, int a,
int r, float g) {
    name = n;
    age = a;
    rollNo = r;
    gpa = g;
Student::~~Student() {
    cout << "Destructor all the
data of student: " << name << endl;
void Student::setName(string n) {
    name = n;
void Student::setAge(int a) {
    age = a;
}
void Student::setRollNo(int r) {
    rollNo = r;

```



```
void Student:: setGPA (Float g) {
```

```
    gpa = g;
```

```
String Student:: getName() {  
    return name;
```

```
int Student:: getAge() {  
    return age;
```

```
int Student:: getRollNo() {  
    return rollNo;
```

```
}
```

```
Float Student:: getGPA() {  
    return gpa;
```

```
}
```

```
void Student:: displayInfo() {
```

```
    cout << "Name: " << name << "Age: "
```

```
    << age << "Roll No: " << rollNo
```

```
    << "GPA: " << gpa << endl;
```

```
void Student:: displayGrade() {
```

```
    char grade;
```

```
    if (gpa >= 3.7)
```

```
        grade = 'A';
```

```
    else if (gpa >= 3.0)
```

```
        grade = 'B';
```

```
    else if (gpa > 2.0)
```

```
        grade = 'C';
```

```
else if (gpa >= 1.0)
    grade = 'D';
```

```
else
```

```
    grade = 'F';
```

```
    cout << "Grade for this  
student is " << name << "; " << grade  
<< endl;
```

```
}
```

```
#include "student.h"
```

```
int main() {
```

```
    student s1;
```

```
    s1.setName("Mubashir");
```

```
    s1.setAge(21);
```

```
    s1.setRollNo(0020);
```

```
    s1.setGPA(3.8);
```

```
    s1.displayInfo();
```

```
    s1.displayGrade();
```

```
    cout << endl;
```

```
    student s2("Fahad", 22, 003, 2.9);
```

```
    s2.displayInfo();
```

```
    s2.displayGrade();
```

```
    cout << endl;
```



```
student s3 ("Atir", 22, 12);  
s3.setGPA(1.5);  
s3.displayInfo();  
s3.displayGrade();  
system("Pause");  
return 0;  
}
```