## C++ Programming

#6 class 정의

2020년 1학기

## 실습 문제

School Name: PNU, Count: 4
Name: Kim GPA: 2.7
Name: Hong GPA: 3.5
Name: Lee GPA: 0
Name: Joo GPA: 1.5

School Name: PNU, Count: 4
Name: Hong GPA: 3.5
Name: Kim GPA: 2.7
Name: Joo GPA: 1.5
Name: Lee GPA: 0

School Name: KNU, Count: 2 Name: Seo GPA: 2.5 Name: Lee GPA: 3.8

School Name: PNU, Count: 4
Name: Hong GPA: 3.5
Name: Kim GPA: 2.7
Name: Joo GPA: 1.5
Name: Yoon GPA: 3.3

School Name: KNU, Count: 3 Name: Seo GPA: 2.5 Name: Lee GPA: 3.8 Name: Joon GPA: 3.3

int main() {	
School pnu("PNU") ;	School Name: PNU, Count: 4
pnu.addStudent("Kim", 2.7F) ; pnu.addStudent("Hong", 3.5F) ;	Name: Kim GPA: 2.7 Name: Hong GPA: 3.5 Name: Lee GPA: 0
pnu.addStudent("Lee"); pnu.addStudent("Joo", 1.5F);	Name: Joo GPA: 1.5
pnu.print();	School Name: PNU, Count: 4 Name: Hong GPA: 3.5
pnu.sort(); // descending pnu.print();	Name: Kim GPA: 2.7 Name: Joo GPA: 1.5
School knu("KNU"); knu.addStudent("Seo", 2.5F); knu.addStudent("Lee", 3.8F); knu.print();	Name: Lee GPA: 0  School Name: KNU, Count: 2  Name: Seo GPA: 2.5  Name: Lee GPA: 3.8
Student& lee = pnu.findStudentWithName("Lee"); lee.setGPA(3.3F); lee.setName("Yoon");	School Name: PNU, Count: 4 Name: Hong GPA: 3.5 Name: Kim GPA: 2.7 Name: Joo GPA: 1.5
pnu.print() ;	Name: Yoon GPA: 3.3
<pre>knu.addStudent("Hong", 4.3F); Student&amp; hong = knu.findStudentWithName("Hong"); hong.setGPA(3.3F); hong.setName("Joon"); knu.print(); }</pre>	School Name: KNU, Count: 3 Name: Seo GPA: 2.5 Name: Lee GPA: 3.8 Name: Joon GPA: 3.3

## 제약 조건

- Define class Student and School!
- No non-member(i.e., global functions)

```
class Student {
  private:
    string name;
  float gpa;

public:
    ...
};
```

```
class School {
  private:
    string schoolName;
    vector < Student > students;

public:
    ...
};
```