

# VIRTUAL FUNCTIONS

1<sup>ST</sup> LECTURE - SUPPLEMENT

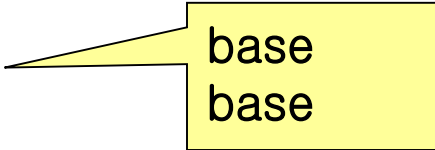
엄현상(Eom, Hyeonsang)  
School of Computer Science and Engineering  
Seoul National University

# Outline

- Virtual Functions
  - Code examples
- Q&A

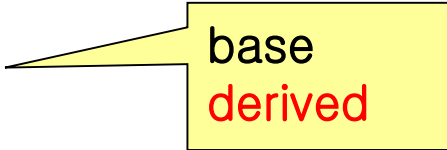
# Virtual Functions

```
#include <iostream>
using namespace std;
class A {
public:
    void pr() {
        cout << "base" << endl;
    }
};
class B : public A {
public:
    void pr() {
        cout << "derived" << endl;
    }
};
main () {
    B b;
    A a = b;
    A *pA = &b;
    a.pr();
    pA->pr();
}
```



base  
base

```
#include <iostream>
using namespace std;
class A {
public:
    virtual void pr() {
        cout << "base" << endl;
    }
};
class B : public A {
public:
    void pr() {
        cout << "derived" << endl;
    }
};
main () {
    B b;
    A a = b; // What if A &a = b;
    A *pA = &b;
    a.pr();
    pA->pr();
}
```



base  
**derived**