Public, Protected, and Private Inheritance

Inheritance access chart

Inheritance

Access

	public	**protected**	**private**
public	public	protected	private
protected	protected	protected	private
private	private	private	private

Example 1

```
class A{
private: int priA;
protected: int proA;
public: int pubA;
        void displayA(){
             cout<<priA<<proA<<pubA;
        }
};
class B : public A{
private: int priB;
protected: int proB;
public: int pubB;
        void displayB(){
             cout<<priA<<proA<<pubA;
             cout<<priB<<proB<<pubB;
        }
};

int main(){
    A objA;  B objB;
    cout<<objA.priA << objA.proA
<<objA.pubA<<endl;
    cout<<objB.priA <<objB.proA << objB.pubA
<<endl;
    cout<<objB.priB << objB.proB
```

Example 2

```
class A{
private: int priA;
protected: int proA;
public: int pubA;
        void display(){
             cout<<priA<<proA<<pubA;
        }
};
class B : protected A{
private: int priB;
protected: int proB;
public: int pubB;
        void display(){
             cout<<priA<<proA<<pubA;
             cout<<priB<<proB<<pubB;
        }
};

int main(){
    A objA;  B objB;
    cout<<objA.priA << objA.proA
<<objA.pubA<<endl;
    cout<<objB.priA <<objB.proA << objB.pubA
<<endl;
    cout<<objB.priB << objB.proB
```

```
class A{
private: int priA;
protected: int proA;
public: int pubA;
        void display(){
             cout<<priA<<proA<<pubA;
        }
};
class B : private A{
private: int priB;
protected: int proB;
public: int pubB;
        void display(){
             cout<<priA<<proA<<pubA;
             cout<<priB<<proB<<pubB;
        }
};

int main(){
    A objA;  B objB;
    cout<<objA.priA << objA.proA
<<objA.pubA<<endl;
    cout<<objB.priA <<objB.proA << objB.pubA
<<endl;
    cout<<objB.priB << objB.proB
```

Example 4

```
class A{
private: int priA;
protected: int proA;
public: int pubA;
        void display(){
             cout<<priA<<proA<<pubA;
        }
};
```

```
class B : public A{
private: int priB;
protected: int proB;
public: int pubB;
        void display(){
             cout<<priA<<proA<<pubA;
             cout<<priB<<proB<<pubB;
        }
};
```

```
class C : public B{
 private: int priC;
 protected: int proC;
 public: int pubC;
        void display(){
             cout<<priA<<proA<<pubA;
             cout<<priB<<proB<<pubB;
             cout<<priC<<proC<<pubC;
        }
};
```

```
int main(){
    A objA; B objB; C objC;
    cout<<objA.priA << objA.proA
<<objA.pubA<<endl;
    cout<<objB.priA << objB.proA
<<objB.pubA<<endl;
    cout<<objB.priB << objB.proB
<<objB.pubB<<endl;
    cout<<objC.priA << objC.proA
<<objC.pubA<<endl;
    cout<<objC.priB << objC.proB
<<objC.pubB<<endl;
    cout<<objC.priC << objC.proC
<<objC.pubC<<endl;
```

Example 5

```
class A{
private: int priA;
protected: int proA;
public: int pubA;
        void display(){
             cout<<priA<<proA<<pubA;
        }
};
```

```
class B : protected A{
private: int priB;
protected: int proB;
public: int pubB;
        void display(){
             cout<<priA<<proA<<pubA;
             cout<<priB<<proB<<pubB;
        }
};
```

```
class C : public B{
 private: int priC;
 protected: int proC;
 public: int pubC;
          void display(){
               cout<<priA<<proA<<pubA;
               cout<<priB<<proB<<pubB;
               cout<<priC<<proC<<pubC;
          }
};
```

```
int main(){
    A objA; B objB; C objC;
    cout<<objA.priA << objA.proA
<<objA.pubA<<endl;
    cout<<objB.priA << objB.proA
<<objB.pubA<<endl;
    cout<<objB.priB << objB.proB
<<objB.pubB<<endl;
    cout<<objC.priA << objC.proA
<<objC.pubA<<endl;
    cout<<objC.priB << objC.proB
<<objC.pubB<<endl;
    cout<<objC.priC << objC.proC
<<objC.pubC<<endl;
```

```
class A{
private: int priA;
protected: int proA;
public: int pubA;
        void display(){
             cout<<priA<<proA<<pubA;
        }
};
```

```
class B : private A{
private: int priB;
protected: int proB;
public: int pubB;
        void display(){
             cout<<priA<<proA<<pubA;
             cout<<priB<<proB<<pubB;
        }
};
```

```
class C : public B{
 private: int priC;
 protected: int proC;
 public: int pubC;
        void display(){
             cout<<priA<<proA<<pubA;
             cout<<priB<<proB<<pubB;
             cout<<priC<<proC<<pubC;
        }
};
```

```
int main(){
    A objA; B objB; C objC;
    cout<<objA.priA << objA.proA
<<objA.pubA<<endl;
    cout<<objB.priA << objB.proA
<<objB.pubA<<endl;
    cout<<objB.priB << objB.proB
<<objB.pubB<<endl;
    cout<<objC.priA << objC.proA
<<objC.pubA<<endl;
    cout<<objC.priB << objC.proB
<<objC.pubB<<endl;
    cout<<objC.priC << objC.proC
<<objC.pubC<<endl;
```

Example 6