

Student Name _____

- Inheritance is a feature of object oriented design which refers to the ability to inherit characteristics from another class structure.
- Both data members and member functions may be inherited without modifying the original class.
- The original object is referred to as the base object and the derived class contains all of the public data members and member functions of the base class. Additional items may be added to the derived class.
- An advantage of inheritance is that changes may be made to an existing class by creating a derived class with all the features of the original without actually making changes to the base class.
- To indicate that a class is derived from another class the : operator is used. This operator appears between the derived and the base class

```
class derivedclass : base class
{
}
}
```

- Inheritance allows for the ability to create a new class that contains characteristics of another class. The base class is not modified in any way and is not even "aware" of the inheritance.

Access modes

Base Class	Inheritance Access Mode	Derived Class Access to Base
public	public	public
private	public	cannot access
protected	public	protected
public	private	private
private	private	cannot access
protected	private	private