In [inheritance](https://www.codecademy.com/resources/docs/c-sharp/inheritance), one class inherits the members of another class. The class that inherits is called a **subclass** or **derived class**. The other class is called a **superclass** or **base class**.  
- Allows all parts that are shared between multiple classes to be placed in one class and resused multiple times for new classes instead

Vehicle (Superclass/Base Class) – Sedan, Truck (Subclass/Derived Class)  
- Both classes need to have: Wheels, LicensePlate, and Speed properties, Honk(), SpeedUp(), and SlowDown() methods  
  
- Can link it further and have subclasses within truck such as PickupTruck that inherits from the Truck class. This would the Truck class both a superclass and a subclass  
- In this hierarchy, PickupTruck inherits directly from Truck, but also inherits indirectly from Vehicle and Machine. Multiple classes may inherit directly from a single superclass, as both Sedan and Truck inherit from Vehicle. However, a class may only inherit directly from one superclass.

**Creating a Superclass:**

- Created just like any other regular class  
- A subclass inherits or extends the superclass by using the colon syntax

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**Protected Property:**

- Can only be accessed by the current class and any class that inherits from it

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**Calling a Superclass Constructor:**

- Use the base keyword to refer to a superclass constructor inside a subclass  
-  Without an explicit call to base(), any subclass constructor will implicitly call the default parameterless constructor for its superclass.

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