

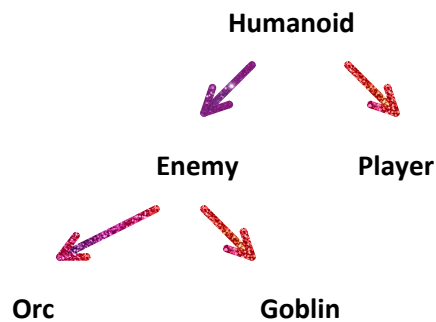
# Polymorphism

Thursday, February 11, 2021 12:30 AM

"Many forms"

Feature of inheritance that allows a class to have more than one type.

Any child class can be said to be a parent class. Anytime a base class is needed, a derived class can be used in its place.



**Orc** "is a" **Enemy** (Correct)

**Enemy** "is an" **Orc** (Incorrect)

Declare an object of a base class type and call the constructors of one of its derived classes.

## Upcasting

```
Parent myClass = new childClass();  
myClass.ParentMethod();
```

**Conversion process known as Upcasting.**

Upcasted objects are treated as an object of its parent's class.

In the above example while **childClass()** is upcasted it can only be treated as a parent class.

Only the variables and methods available in the **ParentClass** can be used and they will be treated as if they were an object of the **ParentClass**. **Virtual** functions will call the most overridden version of a method.