In unit 6 we are introduced to the concept of polymorphism which is derived from the Greek words poly, which means many and morpheus, which means form, structure. Discuss polymorphism in objective oriented programming and provide a java example that details the implementation of polymorphism in java objects.

Polymoprphism is a term used to describe methods if its action or product it produces it dependent on the type of object it is applied on, and can therefore be different under different circumstances or objects.

It is exceedingly useful because sometimes new methods can be created that can make use of code from a parent class, even though the original class was written without this new method in mind.

An example of polymorphism methods is given by Singh (2013):

public class Animal{

...

public void sound(){

System.out.println("Animal is making a sound");

}

}

public class Horse extends Animal{

...

@Override

public void sound(){

System.out.println("Neigh");

}

}

public class Cat extends Animal{

...

@Override

public void sound(){

System.out.println("Meow");

}

}

All subclasses have the common action sound, but there were various ways to do the action that were specific to each animal.

[Singh, Chaitanya. 2013. “Polymorphism in Java with Example.” Beginnersbook.com. March 23, 2013.](http://paperpile.com/b/Fttuts/j6dC) <https://beginnersbook.com/2013/03/polymorphism-in-java/>[.](http://paperpile.com/b/Fttuts/j6dC)