

## MODULE 1: INTRODUCTION TO PROGRAMMING

# Polymorphism





## Yesterday

- What is an example of inheritance?
- What is a superclass or base class?
- What is a subclass?

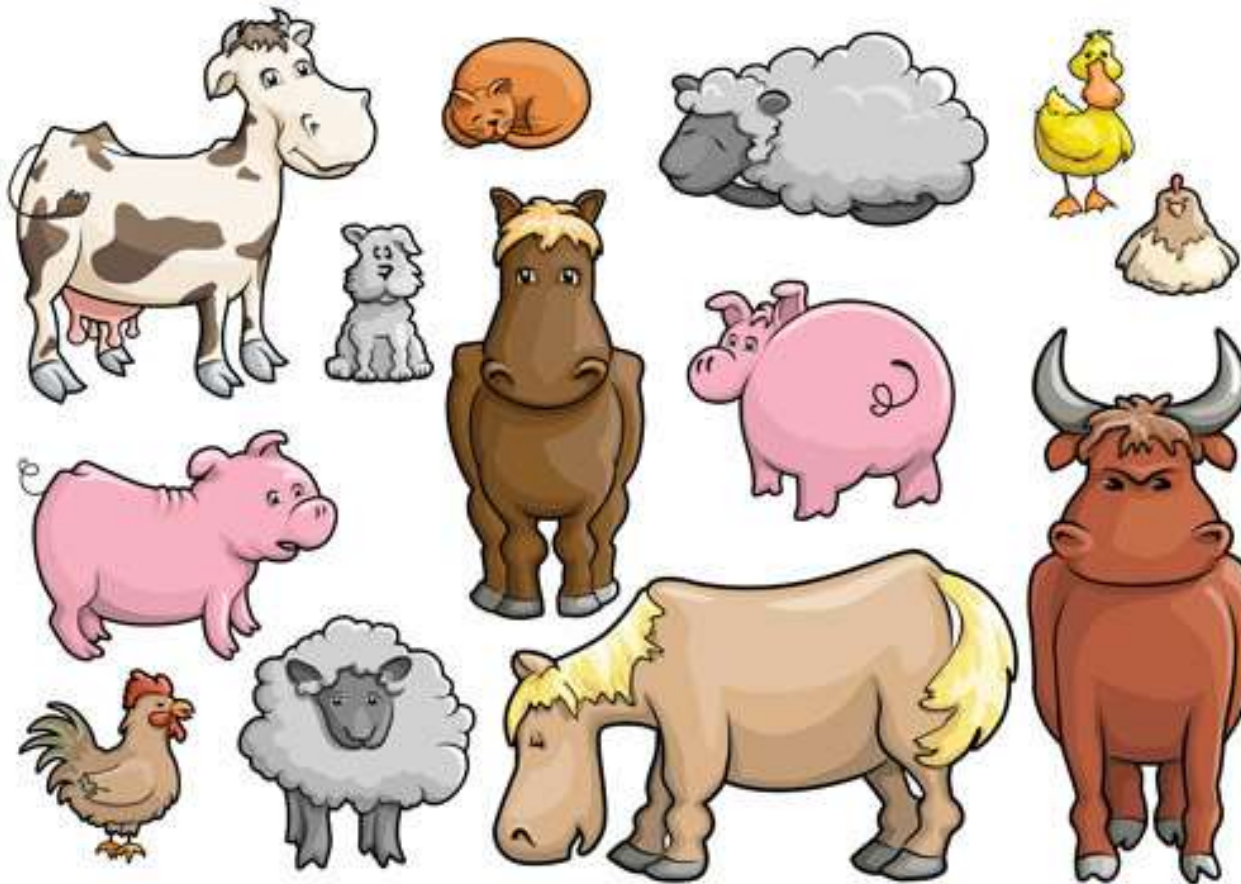
# Polymorphism

- Poly – Many
- Morph – Change or shape

*In object-oriented programming, polymorphism is the idea that something can be assigned a different meaning or usage based on the context for which it is referred. This specifically allows variables and objects to take on more than one form.*



# Polymorphism through Inheritance



# LET'S CODE!

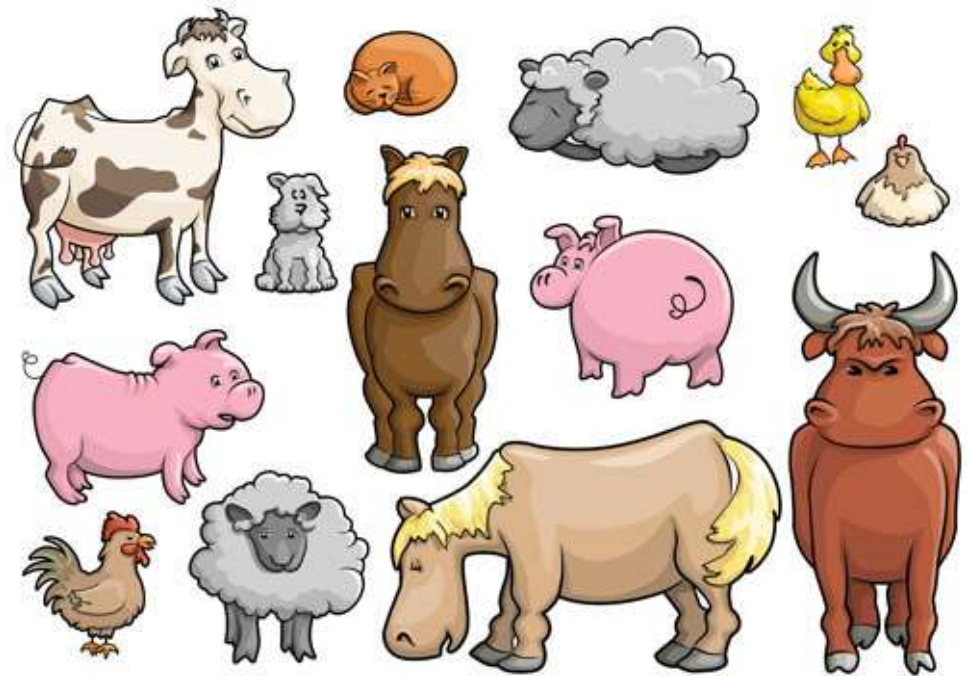


ELEVATE  YOURSELF

# Polymorphism through Interfaces







# Interface

- Define ***what something can do*** or ***how it can be used***, but ***not how it does it***.
- An interface is a contract that defines what methods a user of the interface can expect
  - What are the methods I can rely on being there for this object?
- Cannot be instantiated
- Multiple Interfaces are allowed for a single object
- if Class A implements interface B, then A "is-a" B
  - And so are all its children

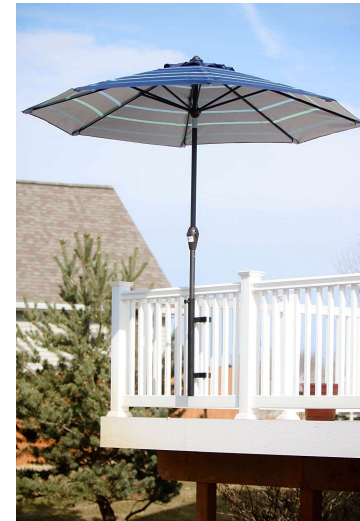
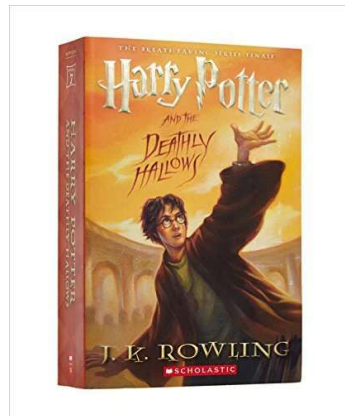


# LET'S CODE!



ELEVATE  YOURSELF

# Real World Example



WHAT QUESTIONS DO  
YOU HAVE?



# Reading for tonight:

## **Inheritance**

