

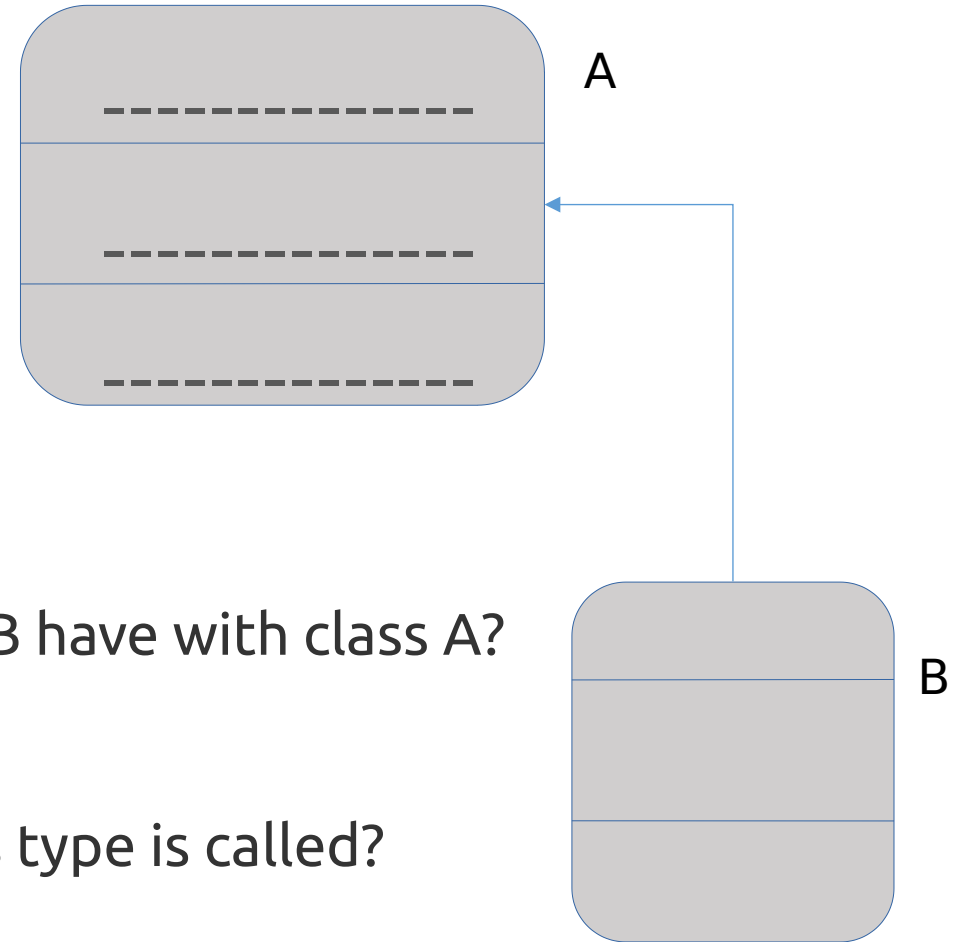
1. Fill-in the features of a class that should appear in each section of the class diagram.

2. Indicate which section normally contains private data?

3. Which procedure always exists in the bottom section?

4. What type of relationship does class B have with class A?

5. What is making an object from a class type is called?





Share...

World

ShipGameWorld

Actor

Crate

Ship

Submarine

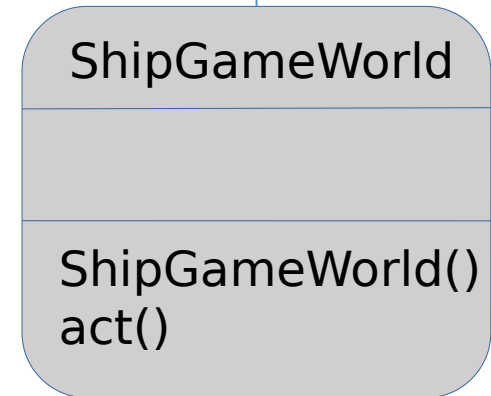
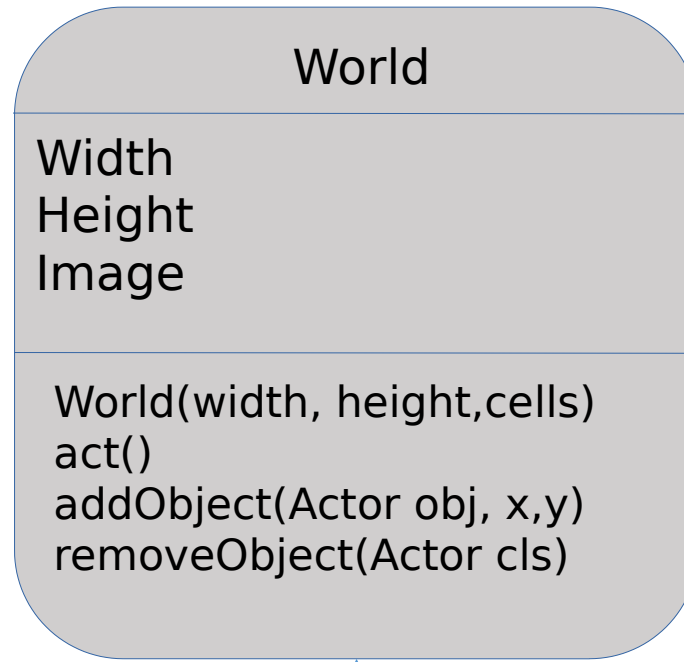
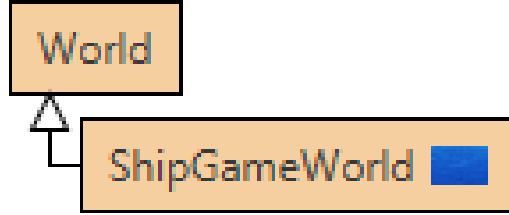
&gt; Act

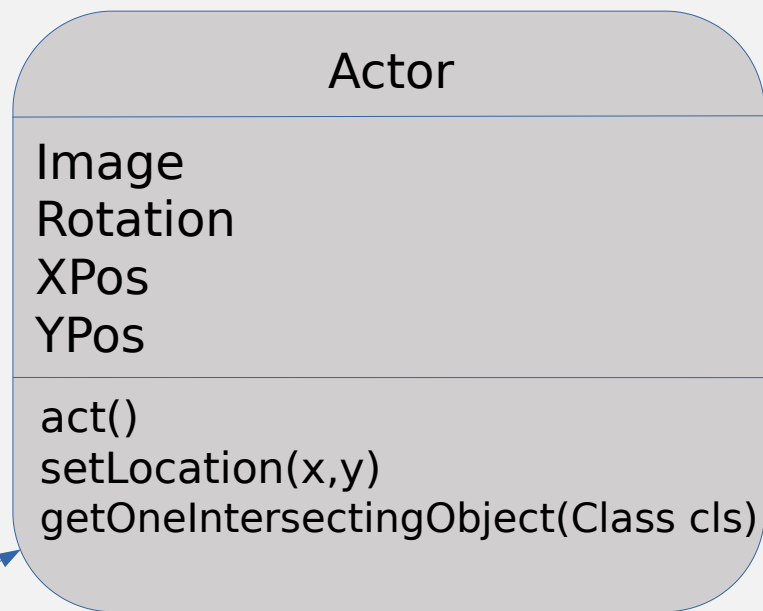
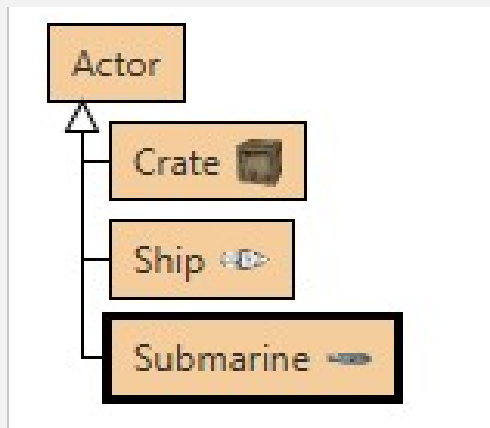
▶ Run

↺ Reset

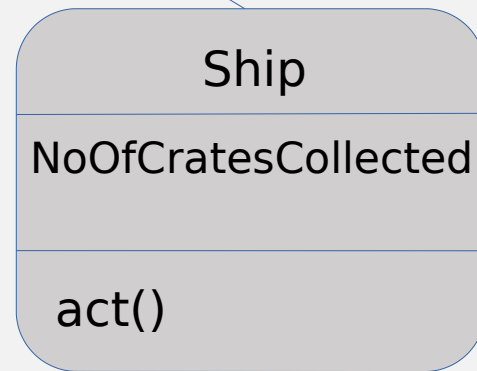
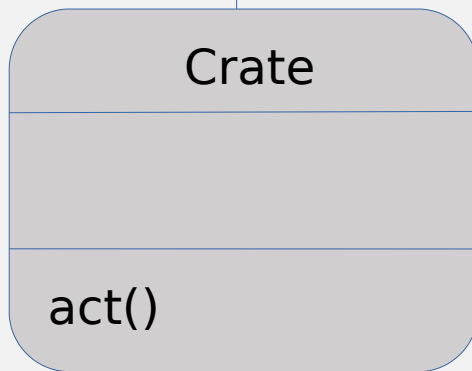
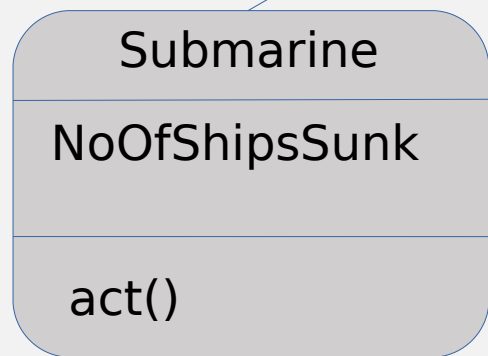
Speed:







act() is  
overridden so  
each subclass  
exhibits it's own  
individual  
behaviour



# What have we learnt to do in Greenfoot?

- Add Actors to the World
- Move Actors in a straight line
- Change the speed of Actors
- Rotate Actors
- Make Actors respond to specific key presses
- Created Actors in the constructor of the World
- Detect collisions
- Detect multiple collisions
- Make Actors react when collisions occur
- Understand the screen coordinates
- Randomly recreate Actors
- Build in delays
- Introduce a score board and track the score
- Introduce the trigonometry to simulate gravity
- Applied gravity to the movement of an Actor

# Flocking

- Attraction - steer towards average position of neighbours
- Repulsion - avoid crowding neighbours
- Alignment - steer towards the same direction








# Creating your own game

- Complete in next week's homework
- **Using all of the skills that you have learned by completing the three tutorials create your own game.**
- Your game as a minimum should:
  - Have a one main character that the user controls
  - Have at least two different enemies that have an effect on the main character e.g. lose life/ health
  - Have items to collect that have an effect on the main character e.g. increasing score/ power ups for health/ add a life
  - Have a scoreboard to show score/ health/ lives etc.
- Your CODE should have comments in it that show/ demonstrate your understanding of the following terms:
  - Attribute
  - Method
  - Constructor
  - Encapsulation
  - Inheritance

# Computer Science A Level

Home / My courses / Computing & IT / Computer Science A Level

## Java - Object Oriented

- 
-  Greenfoot Tutorials
  -  Session 1 - Ship Game
  -  Session 2 - AirRaid
  -  Session 3 - CannonGame
  -  Session 4 - Creating your own game
  -  Object-Oriented Theory - key terms
- 

NB:

Copy the code folders to your area on the N:\ drive

Avoid saving to your 'Documents' folder while some technical issues are