Identify classes which we will use to create objects

What the things an object knows about itself - attributes

What can the object do- methods

Java is pass by value, creates a copy of the object within the function

**Encapsulation is information hiding**

**Access modifiers**

* Public
* Private
* Protected
* Default

**Inheritance hierarchy**

Superclass, subclass takes values from the superclass

All classes withing the hierarchy follow the is an rule

Use case diagrams

Use proper annotations

You can break them down to separate components if its makes more clear to the user

Before you start coding have some draft diagrams then

Start off with the high level

When identified high level classes you can start coding

Then can implement these in different ways

Association classes

Can move many to many relationships to 1 to many relationships by adding association classes

Draw sequence diagrams last

https://app.diagrams.net/

To come up with class

First this is to look for the nouns

Week 2

Use draw.io for the user case diagrams

**Uml class diagrams**

**Associations** how classes reference each other

**Multiplicity-** how many instances of the classes can be linked to the instance of the other class

0..1 zeor or 1

\* many or 0

Ranges as well

1:1..\*

1..3

0, 3..8

Coding wise can show an error if they don’t match the required bits

Association classes

Can move many to many relationships to 1 to many relationships by adding association classes

Interfaces

Dashed arrow