CS 2420
Fall semester section 01
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Chapter 4 notes

If we have a box/ object book calls it a memoryCell this is just like a place holder where we could go change object to string, Integer, Double, house …

Arraylist is where you put stuff in it. Its just an array that you can add stuff too.

Autoboxing and auto unboxing in java

```
1  import java.util.ArrayList;
2
3  public class BoxingDemo
4  {
5      public static void main( String [ ] args )
6      {
7          ArrayList<Integer> arr = new ArrayList<Integer>( );
8
9          arr.add( 46 );
10         int val = arr.get( 0 );
11         System.out.println( "Position 0: " + val );
12     }
13 }
```

You can use generics by have a comparable and compare stuff to program generically

Real Generics:
public class GenricBox<AnyType> {
Public AnyType read(){

}

Use AnyType as and be called

Will need the compareTo comparable to check if anytypes are the same

Generics don't make code fast bust it makes your code more type safe at compile time.
Used to find bug earlier

privatives cannot be used in generics
Instanceof only works with the child
Static methods and fields cannot refer to the class type variables
Cannot create/construct a generic after it was made
Cant make a new array of anytype

Passing a function to method
Pass class that has a function you will call

Nested class hided class from other things
Put it in the parameter to get the other class

Use a functor when you want to pass a method

Dynamic dispatch