

Object Arrays

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Java

Using Arrays with Objects

When using Objects in an array, we must remember a couple of things.

Methods and constructors are used the exact same way as a normal variable.

```
Chicken[] x = new Chicken[100];
```

This creates 100 Chickens

BUT they're empty!

We need to make sure to construct them!

Index	Chicken
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Constructing Array Objects

```
Chicken[] x = new Chicken[100];  
x[0] = new Chicken();
```

This creates 100 Chickens

Now the first Chicken has been created!

Above is using the **empty constructor**,
You can use **any constructor** you want at this point.

Index	Chicken
0	Bob
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Using Methods on Array Objects

```
Chicken[] x = new Chicken[100];  
x[0] = new Chicken();  
x[0].cluck();
```

Just like a regular object,
we can **use methods on these Chickens.**

Here the first chicken is clucking.
It can only cluck **AFTER** it's been created

Index	Chicken
0	Bob
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

Lab: War!

Given: Warrior and Wizard classes

1. Both classes have the following
 - a. Empty constructors and String constructors (sets name)
 - b. public boolean isDead()
 - i. Returns if the target is dead or not
2. Wizard has: public void attack (Warrior)
 - a. This attacks the Warrior for a certain amount of health. Warriors health is updated.
3. Warrior has: public void attack (Wizard)
 - a. This attacks the Wizard for a certain amount of health. Wizard health is updated.

Lab: War!

You're creating the main. The War!

1. Warriors and Wizard will be pitted against each other!
2. Create 100 Warriors and Wizards
3. Use the given methods to alternate attacking from Wizard to Warrior
 - a. Start at the first Warrior and Wizard
 - b. Wizards always attack first (they can cast from a far)
 - c. Once a player is dead, move onto the next player.
4. Once either the last Warrior or Wizard are dead, then you stop the war
 - a. Mention who won and how many fighters are left