# This keyword

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# This is very confusing

Practicing will help.

#### What is this?

This is a keyword to refer to the object that's being called on.

This is used clarify which object is being referred to.

Mostly used inside Classes

#### This Example

Chicken here would compile.

But which name is which?

What is the line of code that assigns the value?

The Chicken class is confusing here.

```
public class Chicken{
    String name;
    public Chicken(String name){
    }
}
```

#### This Example

This is possible.

**BUT** 

It's not correct.

Let's explain what this does.

```
public class Chicken{
    String name;
    public Chicken(String name){
        name = name;
    }
}
```

### This Example

**1.** Let's say the value here is "Cluck Norris"

```
String name;
public Chicken(String name){
   name = name;
}
```

**3.** This variable name is never used here.

2. These are all the same variable being used.

This just says the following:

"Cluck Norris" = "Cluck Norris";

Not right. We're not assigning "Cluck Norris"

## This Example: The correct way

**1.** Let's say the value here is "Cluck Norris"

```
String name;
public Chicken(String name){
   this.name = name;
}
```

**3.** These are the same.

this refers to the name of THIS current object

2. These are the same object

Now we're saying the following: this.name = "Cluck Norris"

#### This as a Mutator Method

This can be used in methods as well.

Just remember which **Object** is being called when using <u>this</u>.

```
public void setName(String name){
    this.name = name;
}
```

#### Lab:

- 1. Repeat lab 41
- 2. In your Dwarf class, use this.
- 3. In your Dwarf class, implement the following using this
  - a. public Dwarf(String name, int age)
  - b. public boolean isSameName(String name)
- In main
  - a. Create 100 Dwarves with random names/ages
  - b. Check the 1st Dwarf's name against all other dwarves
  - c. Print how many duplicates and what the name was