

# asgn03 Static methods and properties

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## Objectives

- Modify existing code to
  - Add static properties
  - Add static methods
- Use the ternary operator instead of `if...else`
- Use git and GitHub without explicit instructions.

## Setup

- Download and unzip the file **asgn03-static** from Moodle into your **web250** folder.
- Use this code as your starter code for this assignment.
- I have separated the class, **Bird.php** from the display, **index.php**. This is different from the screencast but I think it makes the code easier to read. You will need to modify both of these files.

## Git

I added a link to the git tutorials from Laracasts called [Git Me Some Version Control](#). Review these as needed for this and future assignments. These tutorials are free.

Here is a list of git requirements.

- Stage new files (add)
- Commit when you need to
- Create a branch called asgn03-static
- Checkout to the branch asgn03-static
- Merge completed code from the asgn03-static branch to the Master branch
- Push the contents of the Master branch to GitHub

## Command Line or Not

I still prefer to use the command line. You can use it in VS Code or use a terminal. Git is built into VS Code (Brackets too) and there are extensions available. You may choose to use a GUI for git. A popular tool is [Git Tower](#). It does not matter which route you take, what is important, is that you use git for version control.

## Code

Modify the code to meet the following requirements

### Create

#### Bird Class

- a static property named `instance_count`.
- a static property named `egg_num` and set its default to zero
- a static method named `create()` that creates a new instance of a Bird.

## Null Coalescing Operator

Modify the following method (also located in the `Bird.php` file) so it uses the PHP **null coalescing operator** if you are using PHP version 7+. If you are using PHP version 5.x you may **ternary operator**. Here is a [link to the PHP Manual](#). Scroll down to the section titled **Ternary Operator** to read how to use it. Immediately after that is the section titled **Null Coalescing Operator**.

```
function can_fly() {  
    if ( static::$flying == "yes" ) {  
        $flying_string = "can fly";  
    } else {  
        $flying_string = "is stuck on the ground";  
    }  
    return $flying_string ;  
}
```

Post to the forum if you are having difficulty using the **null coalescing operator** .

If you are using PHP version 5.x then use the ternary operator but you should upgrade to version 7 for future assignments.

## Flycatcher subclass

- Add a static property named `egg_num` that overrides the Bird class `egg_num` by adding the value "3-4, sometimes 5"

## Index.php

- Display the `instance_count` for the Bird, Yellow-bellied Flycatcher, and Kiwi **before** using the `create()` method.
- Create new instances of Bird, Yellow-bellied Flycatcher, and Kiwi
- Display the `instance_count` for the Bird, Yellow-bellied Flycatcher, and Kiwi **after** using the `create()` method.

## Display

To see what the output should look like visit the [course web site](#)

## Submit Your Work

- Update your `web250/index.html` file so it contains a link to `web250/asgn03-static`.
- Push your code to your website and test it on your website.
- Remember to merge your `asgn03-static` branch with your 'master` branch before pushing it to your GitHub account
- Submit your GitHub URL and Website URL in the comments section of Moodle.
- You do **not** need to submit your code in Moodle.

## Resources

- [Audubon](#)