

## Do It

1. Add a speak method to the Dog class to give each instance the ability to “bark”. Hint: Include a print (or echo) statement in your method. Add a call to your speak method after the call to the display\_properties method in the lab.php file.
2. Create a second object from the Dog class in the lab.php file called \$chow. Call the speak method (#1) to make him “bark”.
3. Create a new library file that contains a class of another animal of your choice. Within that class, create four properties that provide characteristics of that animal. Include a method that will print each of these characteristics. Also include a method that will cause the animal to speak. Create another file that will use this library file to create an instance of the class. The program should also call the method to display the properties and the method to cause the animal to speak.

*Program errors—If you encountered errors when trying this example, check the following:*

1. Did you name the class (Dog) and the file name (dog.php) the same? Make sure the file ending is .php and not .txt for both the dog.php and lab.php files.
2. In the require\_once statement in the lab.php file, is the file name exactly the same as the dog.php file?
3. Are the dog.php and lab.php files in the same folder?
4. Did you include the same amount of opening ({} and closing (}) brackets in both programs?
5. Did you forget any semicolons (;)?
6. For each \$this statement, make sure the \$ is part of this and not of the property (\$this->dog\_weight).
7. For any other errors, copy and paste your error into a search engine to find possible solutions. Remember, the error may be in either the Apache or PHP error logs (see Chapter 1 for details).

## Return Method

In Chapter 2, the business rules tier was defined to contain modules of code that return information requested, but do not provide an interface or format for displaying the data returned. In the previous example, the Dog class violates this requirement. However, you can fix this problem with just a few code changes to the dog.php and lab.php files.

The print statement in the Dog class should be replaced. However, you want to pass multiple values (dog\_weight, dog\_color, dog\_breed, and dog\_name) back to the program that has called it. There are many ways that you can accomplish this task. However, since you are just starting programming, let’s keep it simple. We can create a comma-delimited string easily by reformatting the original string. You can replace the print statement with

```
Return "$this->dog_weight, $this->dog_breed, $this->dog_color.";
```

The new Dog class would now contain what’s shown in Example 3-6.