

```

catch(setException $e)
{
    echo $e->errorMessage(); // displays to the user
    $date = date('m.d.Y h:i:s');
    $errorMessage = $e->errorMessage();
    $eMessage = $date . " | User Error | " . $errorMessage . "\n";
    error_log($eMessage,3,USER_ERROR_LOG); // writes message to user error log file
}
catch(Exception $e)
{
    echo "The system is currently unavailable. Please try again later."; // displays
message to the user
    $date = date('m.d.Y h:i:s');
    $eMessage = $date . " | System Error | " . $e->getMessage() . " | " . $e->getFile()
. " | " . $e->getLine() . "\n";
    error_log($eMessage,3,ERROR_LOG); // writes message to error log file
    error_log("Date/Time: $date - Serious System Problems with Dog Application.
Check error log for details", 1, "noone@helpme.com", "Subject: Dog Application
Error \nFrom: System Log <systemlog@helpme.com>" . "\r\n");
    // e-mails personnel to alert them of a system problem
}
?>

```

## Do It

1. Download the code for this section from the book's web site. The example code (Example 6-3) could be broken into several methods to handle the creation of the list boxes and the dogs array. Create methods and move the code in these methods to process this information. Call the methods from the previous location of the code.
2. Download the code for this section from the book's web site. Adjust the code to handle dog information that will include the following additional fields: `dog_ID` (unique for each dog) and `dog_gender`. Assume that the `dog.php` and `dog_data.php` files will return these fields. You won't be able to completely test this assignment until you read about the changes to these programs. Note: If you did not previously complete the earlier Do It, complete that assignment along with this one.

## Updating, Deleting, and Inserting in the Business Rules Tier

You are getting very close to completing the ABC Canine Shelter Reservation System. A few changes need to be made to the `Dog` class to determine why the class was called (`insert`, `delete`, or `update`). Then the information can be passed to the correct method in the `dog_data` class. As mentioned, no changes will be needed to the `dog_data` class, as the methods for `insert`, `update`, and `delete` already exist. Also, the `dog` class must retrieve all the dog records from `dog_data` to send to the `dog_interface`.