

## PHP OOP Practice

### Level 1: OOP Basics

1. Design and implement a Book class for use in a library card catalog. Include any necessary getters, setters and constructors. Each book should have a unique id number. Implement equals and compareTo methods within the class. Also, books need to be able to be checked out and checked in. DO NOT use the magic methods.
2. Design and implement a Point class. The point class should have an x and y coordinate. Be sure to include constructors, getters, setters and any necessary helper methods. Some such helpers could be midpoint, slope or distance between this point and another(The other point would be sent in as a parameter). DO use the magic methods.
3. Design and implement an Employee class for use in a payroll program. Be sure to include constructors, getters and setters. Implement equals and compareTo methods within the class. Employees should have a unique id used within the company. The id should be a unique number (starting at 1000) followed by the first three letters of their last name.

### Level 2: OOP with Databases

1. Using the Blog table in the Content database from the MySQL exercises, create a php Blog class. Then, read all of the blog entries in the table into an array of Blog objects. Write an instance method that shows only the blog title and entry and call that method on each element of the array to show all of the blog entries.
2. Create an Auditionee class in PHP. Then, using the Auditions database from the MySQL exercises, write a query that will find all auditionees that are sopranos. Store each of them in an array called sopranos and output their information.
3. Using the Conferences database from the MySQL exercises, create a Conference class that has a date, time, teacher name and parent name. Use PHP and MySQL queries to make a list of all conferences in order of date and time, and push them into an array of Conference objects in that order. Then, using the bootstrap grid, output all of the conferences in the format:  

	date	time	teacher	parent
--	------	------	---------	--------