INFO1-CE9224 Lab Assignments

You're not responsible for turning these assignments in. They are for your own benefit so that you can learn in class and I can help you as you go. Choose whichever assignments you'd like in any order.

If you have any questions, please feel free to ask during the lab.

Assignment

Create classes for a "stateless shopping cart" system. This assignment is not intended to be functional, it's merely an exercise in system design. Use the following criteria:

Similar to the examples in class, we need to model books and we need to model movies. As you can imagine there are properties and functionality that they share as well as properties and functionality that differ. Build a class hierarchy modeling this.

If you have a hard time being creative about which properties they should have, check out amazon.com and use whatever properties they have for books and videos. For example, books have an ISBN number, whereas movies don't. They both have prices and descriptions.

Next, build a shopping cart class. The shopping cart class should have a property that is an array to hold products. It should have an add() method that takes in any type of product and appends it to the array.

The shopping cart class should also have a getProducts() method which returns the array of products.

The execution of the program should instantiate several products and one shopping cart. It should then add the products to the shopping cart object.

Finally, you should be able to get the products and list them displaying their name and price.

Advanced

Add an ID field to the product classes. When creating a product, give it a unique ID. When adding it to the shopping cart, they key in the $products array should be the product ID.

Add a method to the shopping cart class called getProduct($id) which takes a product ID as an argument. It should return null if no product with that ID can be found, and the product itself if it is found.