Lab08 - Trio<T>

Due: Wed Feb 25, 2015

This lab focuses on:

- ❏ Chapter 12 Exceptions
- ❏ Chapter 16 Search and Sort
- ❏ Chapter 17 Generics

A trio is three things, like a trio of singers. Speaking of, create three classes (in this order).

Lab08

Holds your `main()`. Print: Welcome to Lab08.

XXX

Create a class that is a thing or monster or mollusk or flower or something. Hopefully, something fun. Your XXX class should have at least 3 private class variables. One should be a name. The other two are up to you.

- Your ctor should have parameters to set all the class variables.
- Write getter methods

Trio

In Trio, create an array for 3 XXX objects. Create a method to add to the Trio:

```
public void add( XXX m) { … }
```

Here we go!

1. Go back to Lab08. In your `main()` create three different XXX objects. Create a `Trio` and then add each XXX object to it. Print the `Trio`.

2. Fix your print by adding `toString()` to `Trio` and XXX. Use `StringBuilder` in your `Trio toString()` method. My Trio of Martians printed like this:

```
{Martian Fred, Martian Ethel, Martian Ginger}
```

3. Add an exception to `Trio`. If a 4th XXX object is added, throw an exception.

4. Make `Trio` generic. What has happened to your array of XXX objects?

5. Make XXX `Comparable`. Compare the names of your XXX objects. Add a `smallest()` method to `Trio` that returns the smallest object in the `Trio`. Add code to `main()` to print the smallest object in your `Trio`.

6. Add a `Comparator` class for XXX. This should compare one of the other class variables, not name. Create a method in `Trio` that returns the largest object using a `Comparator`. Add code to create the `Comparator` and print the largest object in the `Trio`. The method looks like this:

```
    public T biggest( Comparator cmp) { … }
```

7. Make your Comparable and Comparator generic. Did you already do this?

Clean up your code. (Source/Format in NetBeans?) Add Javadoc headers. Add inline comments as needed. Make everything beautiful.
Done!

That's it?
thanks.. yow, bill

`Trio<Hamster>`