

Lesson 68: PS #11 Wrap-Up (W22D4)

Balboa High School

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Do Now

- Create new project `InterfacePeople`.
- Import the JAR file [here](#) into the `src` folder.
- Add a class file to your project using `FirstnameLastname` format. For example, student Joe Dirt would add `JoeDirt.java` to `src`.
- Push the project to GitHub using `github-push.sh`.
- You will need to access the pushed project to complete the HW.

Aim

Students will learn to find the maximum value in a list involving `compareTo()` and wrap up PS #11.

- In new project L68, develop class SolarSystem
 - constructor takes these arguments, in order:
 - name — String
 - # of stars — int
 - # of planets — int
 - # of moons — int
 - include private fields to maintain values sent to constructor
- Download [Body.java](#) and save in src folder

next slide →

SolarSystem (cont'd)

- Have SolarSystem implement **two** interfaces:

```
public class SolarSystem implements Body, Comparable {...}
```

- Implement the required methods, making sure that `compareTo()` makes use of `getNumBodies()`
- Download [GalaxyDriver.java](#)
 - read through the class to learn how to find max values
 - fix the issue in the `for()` loop's stopping condition
- Run the driver and see if you can figure out how the `for()` loop finds the largest solar system

Improving the Driver

Let's simplify how the driver is finding the largest solar system by converting the traditional `for()` loop into a `for-each` loop...

What makes a SolarSystem great(er)?

- Our `compareTo()` assumes that a `SolarSystem` is greater than another on the basis of its total number of celestial bodies
- New goal: We want to find solar systems with the maximum number of planets instead. Make a small modification to your program that accomplishes this.

Rest of the Period

- Sign-offs for PS #11
- Done with PS #11? Try these:
 - `dividesSelf()`
 - `greenTicket()`
 - `maxMod5()`

- Complete your *FirstnameLastname.java* class in the InterfacePeople project using the instructions at the top of MichaelFerraro.java. Be creative with your print statements!
- Make sure your class appears to work when running PeopleDriver.
Did you remember to implement 2+ interfaces?
- Update your class file in GitHub.
- This is due at the start of next class!