

# Lesson 67: Interfaces (W22D3)

Balboa High School

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# Do Now

- Download `CompareToStringTest.java` from [here](#) and save in this dir: `~/MOUNTED/apcs-locker/tmp`
- Start a terminal shell and `cd` to the directory where you saved the source file.
- Compile (`javac`) and run (`java`) the class. Try to figure out how the `String` class' `compareTo()` method works based on the examples in the provided class.
- Complete the exercise described in the comments at the end of the source.

Students will be introduced to interfaces in Java.

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- You don't have subclasses of interfaces; instead of extending interfaces, classes implement them.
- For example: The `String` class in Java implements an interface called `Comparable`. Doing so forces the `String` class to offer us the `compareTo()` method.

# Let's implement Comparable

Create class `PersonalWealth` that implements `Comparable`.

- Fields:

- `possessions`: double describing dollar amount of someone's stuff (e.g., house, car, & bling.)
- `bankAccounts`: double describing sum total dollar value of someone's bank account(s)

- Methods:

- Constructor taking a value for both of the fields simultaneously
- `getTotalWealth()`: returns a double that is the sum of the `possessions` and `bankAccounts` fields.
- Any method(s) you're forced to implement by the `Comparable` interface! See hint on next slide...

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- The “`this minus that`” trick...

- Finish PS #11
- Sign-offs will be available during our next class meeting