

Arrays and ArrayLists

CSSE 221

Fundamentals of Software Development
Honors

Rose-Hulman Institute of Technology

Announcements – Day 7

- HW2 returned now.
 - Solutions posted
- Exam 1 next Thursday through Arrays and ArrayLists

Time to finish polymorphism

- Yesterday's demo/exercise
- Finish Quiz
- Exercise
- If you finish everything early, you can have a few minutes for BallWorlds
- We'll all go onto Arrays together.

Summary

- If B extends or implements A, we can write

```
A x = new B();
```

Declared type tells which methods x can access.
Compile-time error if try to use method not in A.

The actual type tells which class' version of the method to use.

- ▶ Can cast to recover methods that are only in B:

```
((B)x).foo()
```

Now we can access all of B's methods too.

If x isn't an instance of B, it gives a run-time error (class cast exception)

This week: BallWorlds assignment

- Monday:
 - Intro to UML as a communication tool
 - Writing methods you don't call
 - Using *this*
- Tuesday:
 - Inheritance
 - Polymorphism
- Thursday:
 - **Introducing next week's assignment**
 - **Arrays and ArrayLists**

Next week: “Fifteen”



- Arrays (especially 2D)
- Creating GUIs using Swing
- Responding to mouse clicks

Partners

- You choose
- Roughly equal skill levels work best
- Sign up on the sheet

Arrays

- Notes on board or student summaries
- If this is all review for you, do the quiz and move on
- ArrayAndArrayList is in your repository.
 - Converting arrays to ArrayLists
- We'll save 2D arrays for the project