

CSSE 220

Project Workday

`import MoreEventBasedProgramming` project from the repo

Objectives

- Learn how to avoid common project errors
- Learn how to setup a timer to create events
- Live-code examples of these
- Practice interaction between game elements
- Think about applying this material to project
 - 2nd hour work time for project
 - project adviser will visit Wednesday

Concurrent Modification Exceptions

- Happens when you try to change something that is being used
- Example:
 - Removing something from a list while the list is itself being iterated through (drawing/updating)
- Why?

Threads

- Computers can run more than one thread of execution at the same time
 - Even single core processor can simulate this by timesharing (more about this in future courses)
- Main starts every Java program
- Graphics start a *separate* thread
- Multiple threads can create very painful problems
 - Can be hard to debug (race conditions)
 - Example include ConcurrentModificationExceptions

Timer

- An alternative to a thread that waits/sleeps
- Creates events periodically
- Allows main thread to finish
- Designed to work in same thread as graphics
- Superior approach for ArcadeGame project

Live-coding

Reminders

1. Use your UML design when you code!
 - That's why you did it!
2. ...but DON'T let it dictate the order that you code
 - Instead always do the next thing you can TEST.
 - Start with a Level, then a Hero, then whatever you need to make them display.
 - There is ZERO benefit to creating empty Monster classes at this point!

Work time

Be sure everyone is getting a chance to drive.

TEAM PROJECT