GUI Applications
Announcements for This Lecture

Prelim 2

- Difficulty was reasonable
  - Mean: 72, Median: 75.5
  - Almost same as last year
- What do grades mean?
  - A: 80-100
  - B: 60-100
  - C: 30-55
- More on this in a bit

Assignment 6

- A6 is not graded yet
  - Done by Wednesday
  - Survey still open today
- Times were as expected
  - Median 12 hrs
  - Mean 14.5 hrs
  - But a lot of 30+ hours
- 19 AI hearings held

12/1/19
GUI Applications
Assignment 7 is Posted!

• Designed to take **20-24 hours**
  - Work on it 1 or 1.5 hours *every* day
  - But assumes you could do A6 in 14-15 hours
  - If you took 30+, you might not finish this

• Once again this has **microdeadlines**
  - First one is due Wednesday
  - Today’s lab is directly relevant
  - Both labs this week help on Task 1 (of 3)
Assignment 7 Grading

- Designed more like an exam than assignment
  - Assignments written so everyone can finish
  - Exams written so everyone can finish B portions
  - We assume most people will not get to Task 3

- Grading is explicit in the instructions
  - Can see what will get if have to quit early
  - If everyone does Task 3, there will be a lot of As

- But AI violations will be severe!
  - If convicted, you might fail the entire course
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Do not look at anyone else’s code.

Do not show your code to anyone.
Assignment 7 Office Hours

• No code is ever to be shown!
  - Not to other students
  - Not in private Piazza posts
  - Not to me, or any consultant

• We will help with error messages
  - Can even post these on Piazza

• We will help on general concepts
  - The remaining labs are all focused on A7
  - Will look at lab code and help you there

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GUI Applications
Lesson Videos for Rest of the Course

• Today is the material in **Lesson 27**
  - This material is all about the `game2d` package
  - **All** of lab this week will be about this
• Thursday is the material in **Lessons 26, 28**
  - Videos are posted now to watch
  - Lab for Lesson 28 be next **Tuesday**
• **Lesson 29** is the last topic used on A7
  - Posted on Thursday; only used in Task 3
  - Lab next **Tuesday** (2\textsuperscript{nd} half of **Lesson 28**)
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Lesson 30 does not apply to A7.
Only for students going to 2110.

12/1/19
GUI Applications
Demo Time: Let’s Make a Button

Click Me

Button is Up

Click Me

Button is Down
Demo Time: Now With Pictures

Button is **Up**

Button is **Down**
Demo Time: Composite Objects

- Way to “group” objects
  - Has a single x, y attribute
  - Moving obj moves all

- Code like `subcontroller.py`
  - Each object is attribute
  - Initialize them in `__init__`
  - Needs a custom draw
  - Update not necessary

- Used in end of **Task 1**
Questions?