Class Today

- Practice reading code that has events
- What is the order of what happens?

- Then problem solving to build a game.
A Program

• The following slides are the code from a program. Look over the code and see if you can understand it.
Scene

Scene

- initializeEventListeners
- myFirstMethod

- performCustomSetup
- initializeEventListeners
- myFirstMethod

functions

- Add Scene Function...

properties

- SJointedModel[] smallCritters
- new SJointedModel[] { this.bunny, this.chicken, this.tortoise }

- Add Scene Property...
declare procedure myFirstMethod

do in order
  for each SJointedModel item in this.smallCritters
    item move UP, 1.0, duration 0.5, add detail
    item turn RIGHT, 1.0, add detail
    item move DOWN, 1.0, duration 0.5, add detail
  loop

  if this.panda getDistanceTo this.cow getFrontRightKnee < 0.5 is true then
    this.cow say "You are too close!" add detail
  else
    drop statement here
  end if

  while this.cow getDistanceTo this.ostrich > 3.0 is true
    this.ostrich moveToward this.cow, 0.5, add detail
  loop

  this.cow say "press J and I jump" add detail
Events (1)

```
declare procedure sceneActivated
  do in order
    this myFirstMethod
```

```
declare procedure sceneActivated
  do in order
    if this.ostrich getLeftAnkle getDistanceTo this.chicken < 2.0 is true then
      this.chicken say "ostrich Too CLOSE!" add detail
    else
      drop statement here
    this.cow say "press Space key to make the pin disappear and reappear" add detail
```
Events (2)

declare procedure keyPressed

do in order

if event isKey is true then

this.cow say "me jump" add detail

this.cow move UP, 1.0, duration 0.5 add detail

this.cow move DOWN, 1.0, duration 0.5 add detail

else

drop statement here

this addDefaultModelManipulation

CompSci 94 Spring 2018
Events (3)

declare procedure pointOfViewChanged

do in order
  if (this.bunny.getDistanceTo(this.bowlingPin) > 2.0) is true then
    this.bowlingPin.say("bunny far from pin") add detail
  else
    drop statement here

declare procedure pointOfViewChanged

do in order
  while (this.tortoise.getDistanceTo(this.bowlingPin) > 1.0) is true
    this.tortoise.turnToFace(this.bowlingPin), duration = 0.25 add detail
    this.tortoise.move(FORWARD, 0.25) add detail
  loop
Events (4)
Answer the following questions about the code

- If the world starts, without interacting with the program, what happens, and what is the order it happens in?
- Then trigger some events, how does that change the running of the program.
This lecture covered

- Tracing Code
- Understanding how events work