KeyPressListener, Collision Listeners
November 5, 2019

Prof. Susan Rodger
Q1: How do I get the hare to turn around?

```plaintext
declare procedure keyPressed
do in order
  this.hare turn RIGHT, 1.0 add detail
```
Q1: How do I get the hare to turn around?

- Press any key and the hare will turn around

- Not a good way to do this. Can’t use any other keys for anything else.
Q2: What happens if I press letter A? If I press the letter T?
Q2: What happens if I press letter A?
If I press the letter T?

• Letter A – pig turns
• Letter T – pig turns, then panda turns
Q3: What happens if press letter A?

If press letter T?

- Letter A – pig turns once
- Letter T – pig turns once
Q4: What does Combine and Fire_Multiple do?
Q4: What does Combine and Fire_Multiple do?

- Hold the key down and the whiteRabbit moves a lot faster!
Q5: What happens when …

a) panda collides with a bunny?

b) whiteRabbit collides with a bunny?

Note: bunnies is an array of bunnies
Q5: What happens when …

a) panda collides with a bunny?
   WhiteRabbit (W.R.) turns right

b) whiteRabbit collides with a bunny?
   whiteRabbit turns right

Note: bunnies is an array of bunnies
Q6: What happens when

a) panda collides with a bunny?

b) whiteRabbit collides with a bunny?

c) pig collides with a bunny?

d) whiteRabbit collides with panda?
Q6: What happens when

a) panda collides with a bunny?  
   *Panda says hello*

b) whiteRabbit collides with a bunny?  
   *W.R. says hello*

c) pig collides with a bunny?  
   *Nothing happens*

d) whiteRabbit collides with panda?  
   *Nothing happens*
Q7: Clicking on an array object

• There is an array of bunnies. When a bunny collides with panda, you want the bunny that collided with the panda to say hello and turn around once.

• Why doesn’t this code work?
Q7: Clicking on an array object

- There is an array of bunnies. When a bunny collides with panda, you want the bunny that collided with the panda to say hello and turn around once.

- Why doesn’t this code work?

Bunny4 says and turns
Q7: Clicking on an array object

- There is an array of bunnies. When a bunny collides with panda, you want the bunny that collided with the panda to say hello and turn around once.

- Can you change the code to this?
Q7: Clicking on an array object

• There is an array of bunnies. When a bunny collides with panda, you want the bunny that collided with the panda to say hello and turn around once.

• Can you change the code to this? **NO!**
Why not?

• This code:  
  – Is an Sthing so you CANNOT drop it over a type bunny

• Instead, you have to look through the bunny array and compare each bunny with an Sthing. When you find the bunny that was clicked on, then you just refer to that bunny
Find bunny clicked on in array

- Write a loop to iterate through the bunny array, for each bunny in the array, check to see if it is the item clicked on.
Find bunny clicked on in array

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Have someBunny do things if it matches
Find bunny clicked on in array

- Write a loop to iterate through the bunny array, for each bunny in the array, check to see if it is the item clicked on.
Announcements

• Assignment 5 out today
• Exam 2 is November 19 in two weeks
  – Fill out Exam 2 form if you get accommodations or have a reason why you need to reschedule your exam
• Watch videos and online quiz for Thursday
Class Today

• A game with collisions