CompSci 94
KeyPressListener,
Collision Listeners
November 15, 2022

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Announcements

- Assignment 5 is due Thursday, November 17
- Assignment 6 out, has several deadlines

- Watch videos and online quiz for Thursday

- Exam 3 is November 29, after Thanksgiving
  – Study materials on Nov 29 date on our calendar

Q1: How do I get the hare to turn around?

Q2: What happens if I press letter A?
If I press the letter T?

Q3: What happens if press letter A? If press letter T?

```
this addKeyPressListener  add detail▼

declare procedure keyPressed  event isLetter   event isDigit
  do in order
    if  event ▼ isLetter ▼  is true then
        this.pig ▼ turn  RIGHT ▼ , 1.0 ▼  add detail ▼
    else
        if  event ▼ isKey  T ▼  is true then
            this.panda ▼ turn  RIGHT ▼ , 1.0 ▼  add detail ▼
        else
            drop statement here
```

Q4: What does Combine and Fire_Multiple do?

```
this addKeyPressListener, multipleEventPolicy  COMBINE ▼ , heldKeyPolicy  FIRE_MULTIPLE ▼

declare procedure keyPressed  event isLetter   event isDigit   event getKey
  do in order
    if  event ▼ isKey  RIGHT ▼  is true then
        this.whiteRabbit ▼ move  RIGHT ▼ , 0.25 ▼  add detail ▼
    else
        if  event ▼ isKey  UP ▼  is true then
            this.whiteRabbit ▼ move  FORWARD ▼ , 0.25 ▼  add detail ▼
        else
            drop statement here
```

Q5: What happens when …

```
this addCollisionStartListener  this ▼ .bunnies ▼ , new SThing[] { this.whiteRabbit, this.panda }▼

declare procedure collisionStarted  event getSThingFromSetA   event getSThingFromSetB
  do in order
    this.whiteRabbit ▼ turn  RIGHT ▼ , 1.0 ▼  add detail ▼
```

a) panda collides with a bunny?

b) whiteRabbit collides with a bunny?

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?

```
this addCollisionStartListener  this ▼ .bunnies ▼ , new SThing[] { this.whiteRabbit, this.panda }▼

declare procedure collisionStarted  event getSThingFromSetA   event getSThingFromSetB
  do in order
    if  event ▼ getSThingFromSetB ▼ == this.whiteRabbit ▼  is true then
        this.whiteRabbit ▼ say  "hello" ▼  add detail ▼
    else
        if  event ▼ getSThingFromSetB ▼ == this.panda ▼  is true then
            this.panda ▼ say  "hello" ▼  add detail ▼
        else
            this.pig ▼ say  "hello" ▼  add detail ▼
```

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?

```
this addCollisionStartListener  new SThing[] { this.panda } ,  this .bunnies   add detail

declare procedure collisionStarted  event getSThingFromSetA   event getSThingFromSetB
  do in order
    this.bunny4  say  "hello"   add detail
    this.bunny4  turn  RIGHT ,  1.0   add detail
```

Class Today

- A game with collisions