

CompSci 94

Introduction to Events

Mouse Events

October 28, 2021



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Announcements

- Assignment 4 is due tonight!
- Videos and online quiz for Tuesday

Q1. How do I setup an object marker for the bunny?



Q1. How do I setup an object marker for the bunny?

- Go to scene setup
- Select the bunny first!
- Add objectMarker
- Should see it on the bunny



Q2. How do I use an object marker?



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Q2. How do I use an object marker?

- Use it just like a camera marker.
- Bunny `moveAndOrientTo` `objectMarkerBunny`



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Q3. Consider the following

- Have 3 animals in an array named `animals`, and three object markers in an array called `objectMarkers`. They are in the order in the array as shown from left to right.



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Q3: Suppose the animals have moved as shown. What does the mystery procedure do?


```
declare procedure mystery Add Parameter...
do in order
  do in order
    WholeNumber number ← 0
    for each SBiped oneAnimal in this.animals
      oneAnimal moveAndOrientTo this.objectMarkers [ number ]
      number ← number + 1
    loop
```



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Q3: Suppose the animals have moved as shown.
What does the mystery procedure do?



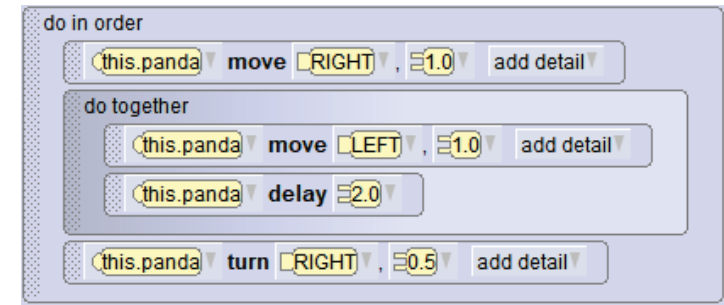
```

declare procedure mystery
do in order
  do in order
    WholeNumber ← number ← 0
    for each SBiped ← oneAnimal in this .animals
      oneAnimal moveAndOrientTo this .objectMarkers [ number ]
      number ← number + 1
  loop
  
```

- It moves the animals back to their original position and orientation.



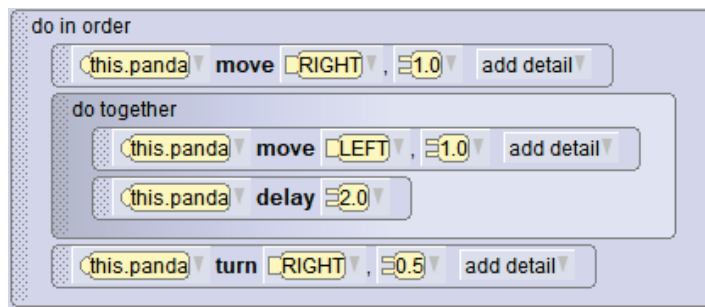
Q4. What does the following code do?



```

do in order
  this.panda move RIGHT, 1.0 add detail
  do together
    this.panda move LEFT, 1.0 add detail
    this.panda delay 2.0
  end do together
  this.panda turn RIGHT, 0.5 add detail
  
```

Q4. What does the following code do?



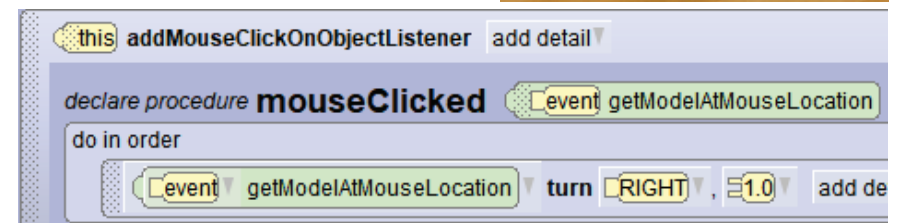
```

do in order
  this.panda move RIGHT, 1.0 add detail
  do together
    this.panda move LEFT, 1.0 add detail
    this.panda delay 2.0
  end do together
  this.panda turn RIGHT, 0.5 add detail
  
```

- Panda moves right, then panda moves left
- Then there is a delay of 1 sec, the doTogether has to finish.
- Then the panda turns.

Q5 - How do you fix the code below so you only click on cow and moose for them to turn around?

- A scene has bear cub, cow, dalmatian and moose.

```

this addMouseClickedOnObjectListener add detail
declare procedure mouseClicked event getModelAtMouseLocation
do in order
  event getModelAtMouseLocation turn RIGHT, 1.0 add de
  
```

Q5 - How do you fix the code below so you only click on cow and moose for them to turn around?

- A scene has bear cub, cow, dalmatian and moose.



```
this addMouseClickedListener, setOfVisuals new Visual[] { this.cow, this.moose }  
  
declare procedure mouseClicked  
do in order  
  getModelAtMouseLocation turn RIGHT, 1.0 add detail
```

- Add Detail – Visual array of cow and moose

Q6 What does this event do?

```
this addMouseClickedListener, setOfVisuals new Visual[] { this.dalmatian }  
  
declare procedure mouseClicked  
do in order  
  if this.dalmatian getOpacity > 0.95 is true then  
    this.dalmatian say "hello" add detail  
    this.dalmatian setOpacity 0.9 add detail  
  else  
    this.dalmatian setOpacity 1.0 add detail
```

Q6 What does this event do?

```
this addMouseClickedListener, setOfVisuals new Visual[] { this.dalmatian }  
  
declare procedure mouseClicked  
do in order  
  if this.dalmatian getOpacity > 0.95 is true then  
    this.dalmatian say "hello" add detail  
    this.dalmatian setOpacity 0.9 add detail  
  else  
    this.dalmatian setOpacity 1.0 add detail
```

- Every other time you click on the dalmatian, it says hello.

Class Today

- Make a simple game

