

CompSci 94

Scorers and Timers

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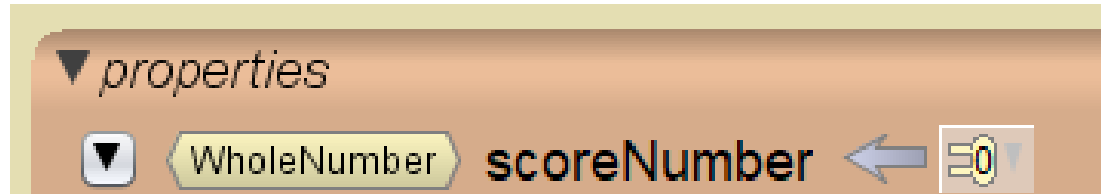
Announcements

- Videos and online quiz for next time
- Assignment 5 out today

Q1: What do you use in Alice to keep track of and display a score?

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- TextModel
- TextModel property of type wholeNumber

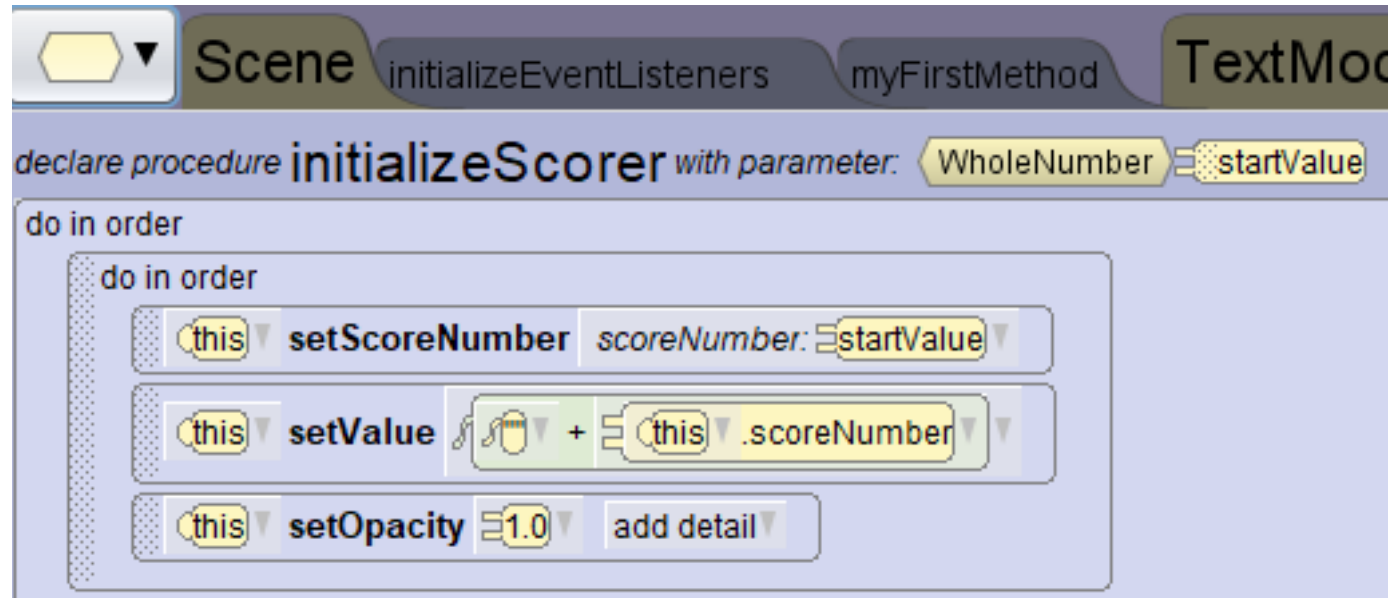


- The property keeps track of the score value
- The textModel displays the score value

Q2: What code would you put in the Procedure InitializeScore?

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- Set the property to 0
- Display the property as a textString “0”
- Make the score value visible – turn on the score



Q3: What code would you put in the procedure updateScore?

Q3: What code would you put in the procedure updateScore?

- Add one to the property
- Display the properties value as a textString

The image shows a Scratch code editor window for a procedure named `updateScorer`. The procedure is declared with a parameter named `amount` of type `WholeNumber`. The code inside the procedure is as follows:

```
do in order  
  do in order  
    this setScoreNumber scoreNumber: (this .scoreNumber + amount)  
    this setValue (this .scoreNumber)
```

The code is written in a block-based style. The first block is a `do in order` block containing two sub-blocks. The first sub-block is a `setScoreNumber` block where the `scoreNumber` property is set to the value of `this .scoreNumber` plus the `amount` parameter. The second sub-block is a `setValue` block where the `value` property is set to the value of `this .scoreNumber`.

Q4: If the game is click on a bunny and get a point, where do you update the score in the program?

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- Must have an event for clicking on a bunny, a `MouseClickedOnObjectListener`.
- Update the score in this event.

Q5: What do you use in Alice to keep track of and display a timer?

Q5: What do you use in Alice to keep track of and display a timer?

- TextModel
- TextModel property of type wholeNumber
- The property keeps track of the timer value
- The textModel displays the timer value

Q6: What would the Procedure
InitializeTimer do?

Q6: What would the Procedure InitializeTimer do?

- Set the property to 20? 30? How many seconds do you want to give the player to play the game?
- Display the property as a textString “20”
- Make the timer value visible – turn on the timer

Q7: What would the procedure
updateTimer do?



Q7: What would the procedure updateTimer do?

- Subtract one from the property
- Display the properties value as a textString



Q8: Where in the program do you
update the timer?

Q8: Where in the program do you update the timer?

- Use an event addTimeListener
- Can set how often you want the event to run. Run it every 1.0 second.

```
this addTimeListener 1.0 add detail
declare procedure timeElapsed event getTimeSinceLastFire
do in order
  this.timer updateTimer
```

Class Today

- Add a scorer and timer to the game from last time.

