CompSci 94
Arrays, Loops with Arrays
October 17, 2024

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Announcements

- QZ and Videos for next time
- Assignment 4 out today, due Tue, Oct 29

- Exam 2 Thur. Oct 24
  - See old tests on calendar page on Oct 24 date

Exam 2 Logistics

- Exam 2 is on Tuesday, Oct 24
- Covers topics through today, Oct 17 lecture
- Old tests are on the calendar web page
- Exam 2 is on paper
- See Exam 2 reference sheet – part of exam
- Exam 2 is your own work
- Bring only pen or pencil

Exam 2 Topics

- Topics from last time (procedures with parameters, etc)
- Random numbers
- if statements, logic (and, or, not)
- count loops, constant variables, Saving objects
- while loops
- Arrays, as a variable
- Scene procedure

How to study for Exam 2

- You should practice writing code on paper!
  - Redo procedures we did in classwork or lecture
  - Start with blank sheet of paper and write code
- See old tests on course calendar page on 10/24 date
- Arrays – only understanding how to put them together and the two loops how they work

Review Randomness

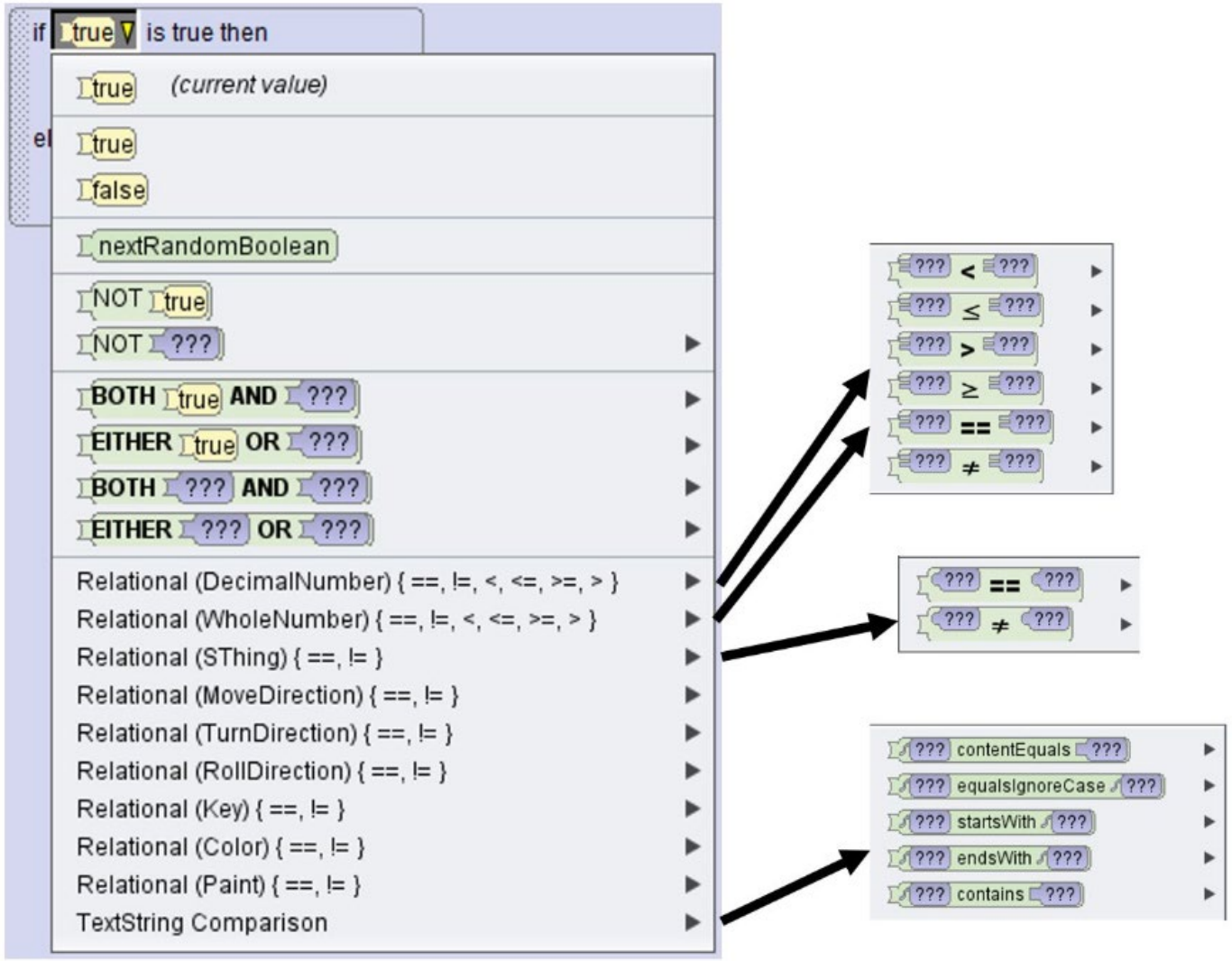
- How do you generate a random number?
- How do you store a random number?
- How do you use a random number?
- What other type of random can you create?

If statement, loops and more

If, loops, and creating an array element.

if statement condition choices

Given below are the condition possibilities for an if statement



Looping structures - when and how to use each one

- Count loop

- While loop

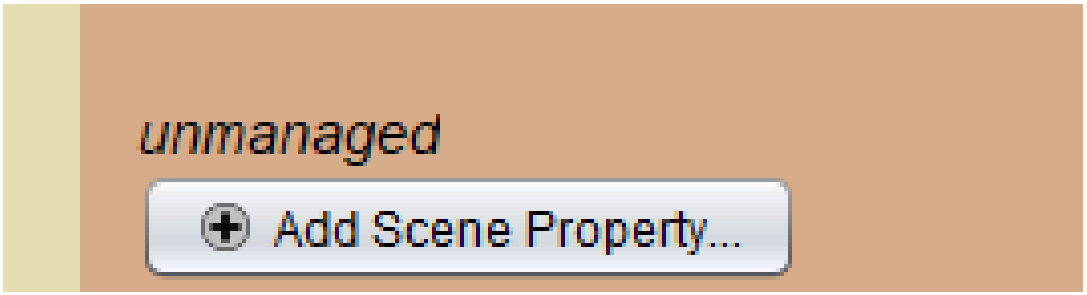
Now for today's topic - Arrays

How and Where does one create an array?

How and Where does one create an array?

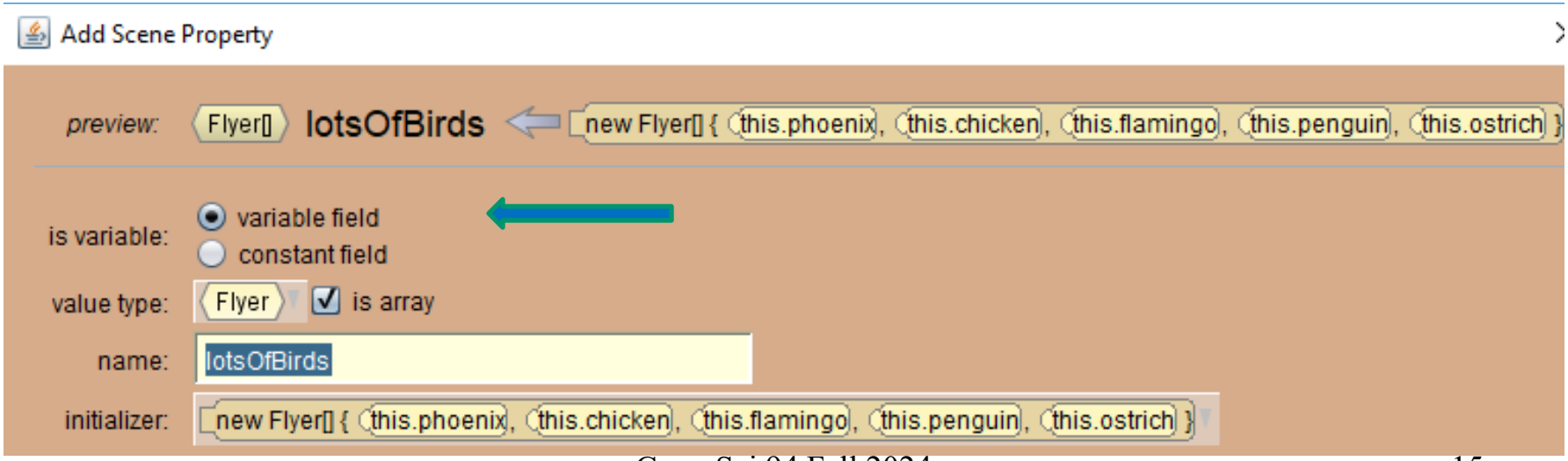
- Create as a Scene Property

- Go to bottom of page and add there.

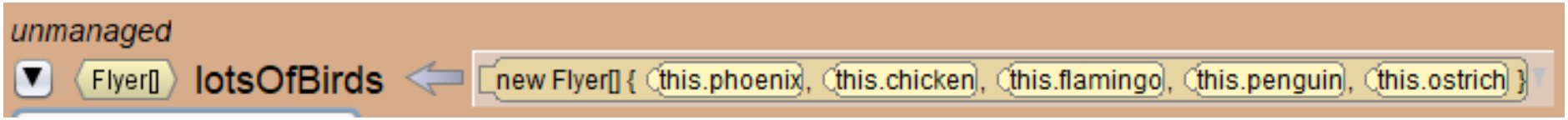


Example – Build array of Flyers

- Pick variable, not constant
- Pick type
- Be sure to check box by “is array”
- Name: pick name to reflect multiple things
- Initialize: add Objects into the array



Result


unmanaged
Flyer[]
lotsOfBirds
new Flyer[] { this.phoenix, this.chicken, this.flamingo, this.penguin, this.ostrich }

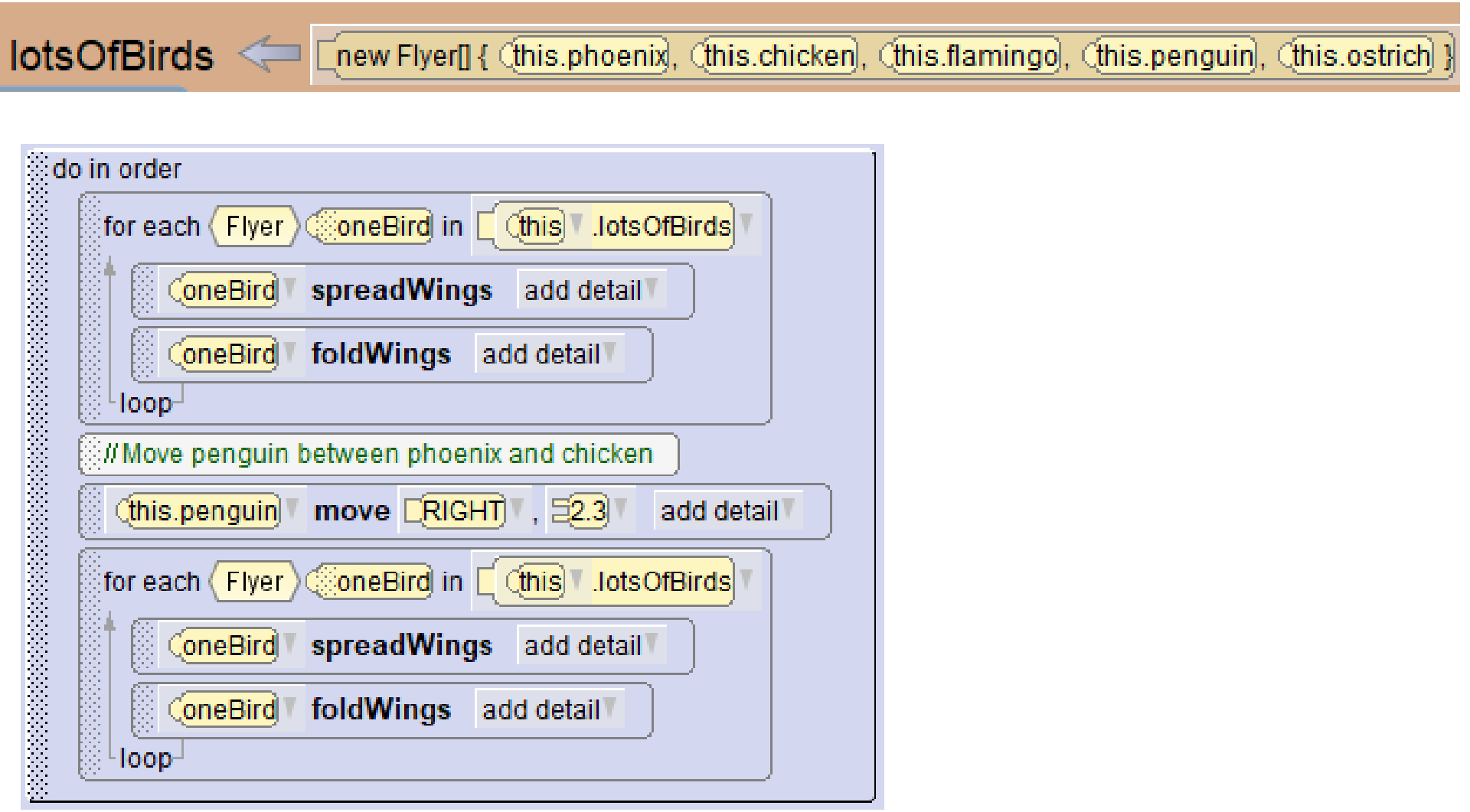
Q1. Arrays

- What is an array?

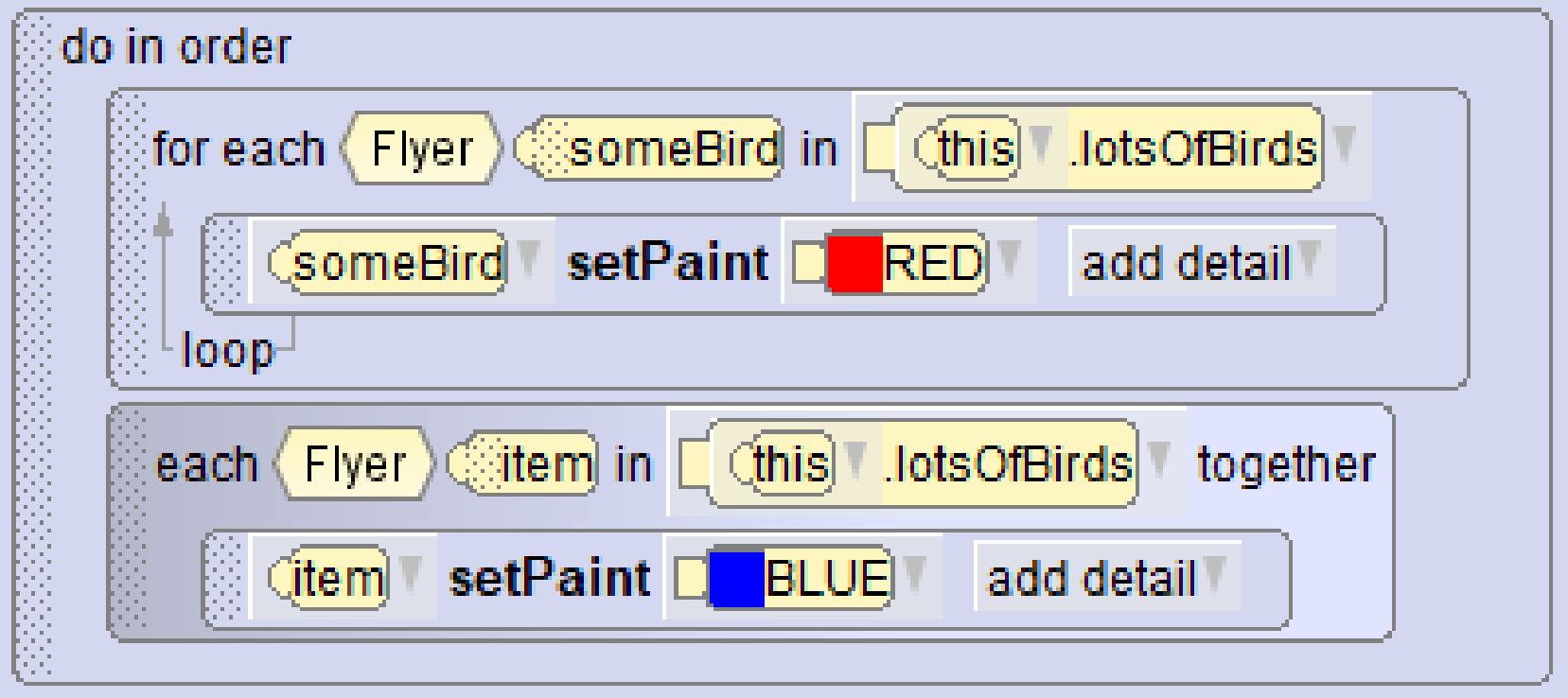
- Why create an array?

- Can an object be in more than one array?

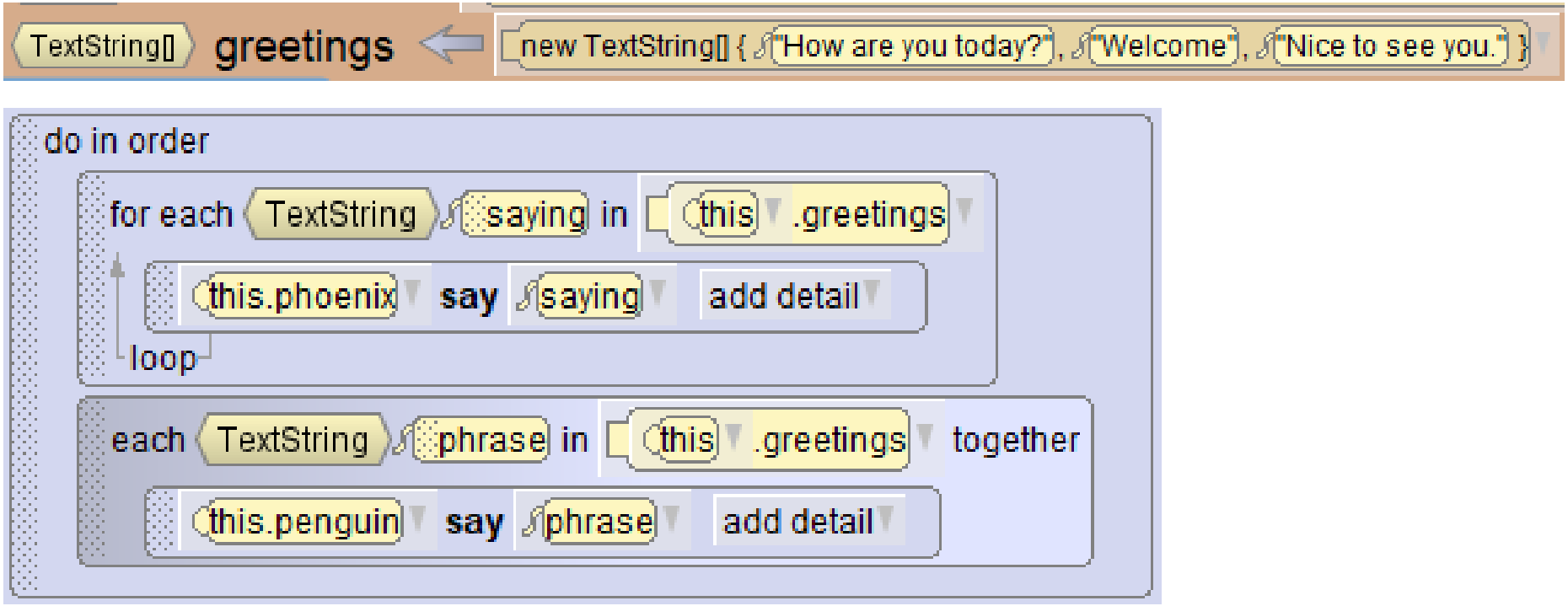
Q2. What is the order the birds do something here?



Q3. What does this code do?

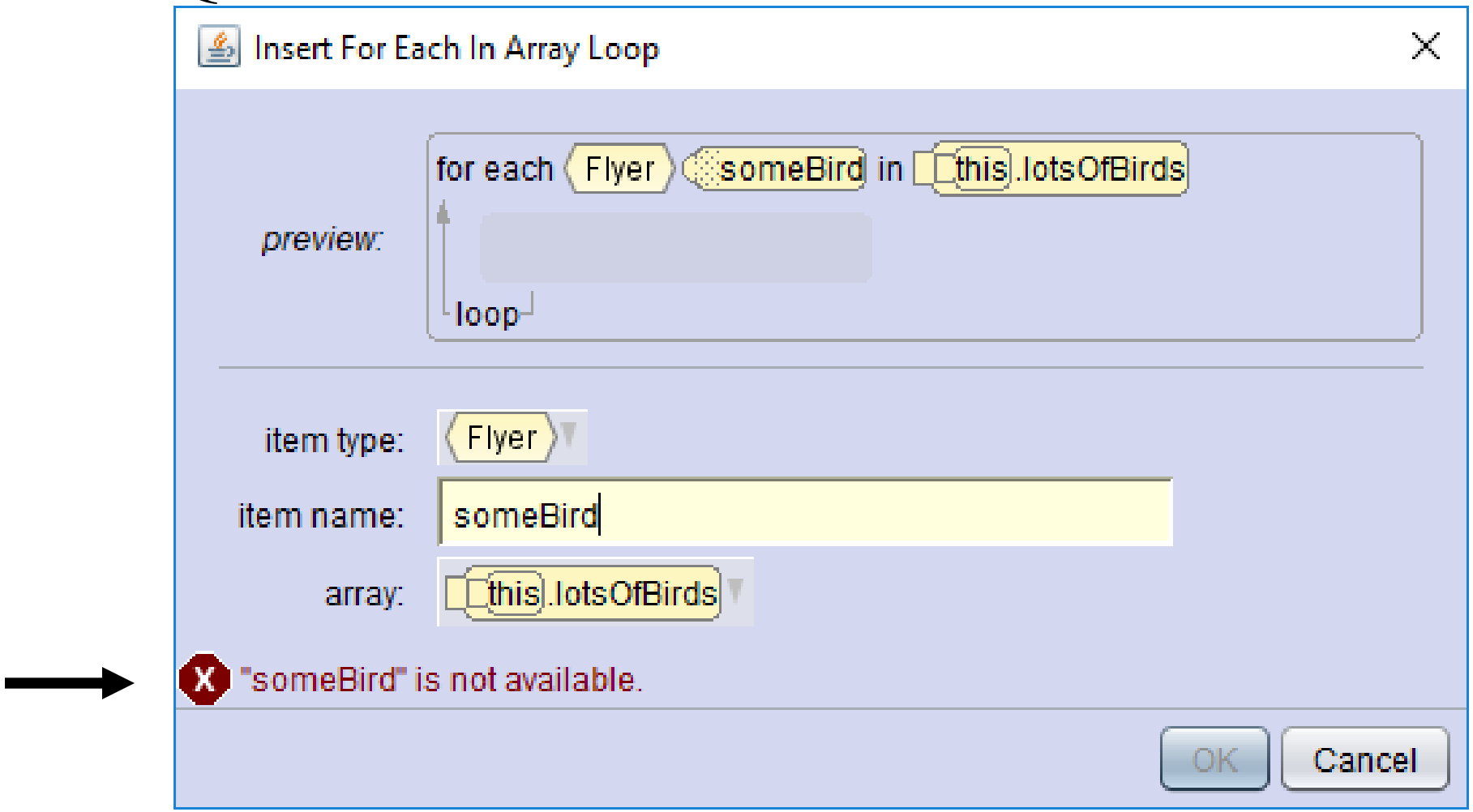


Q4. What does this code do?



Q5. What does this code do?

Q6. What does this error mean?



BE CAREFUL!

- When naming loop variable

- Don’t CUT and PASTE ARRAY LOOP code