

CompSci 94

Variables and Array Indexing

October 13, 2020



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Announcements

- Assignment 4 due Oct 20
- Videos and online quiz for next class
- Exam 2 is Nov 10
- Last day of class is Nov. 12

WOTO-1 Array Indexing

<http://bit.ly/94f20-1013-1>

- Two arrays, animals are in the arrays from left to right as seen



unmanaged



Pig[]

pigArray



new Pig[] { this.pig, this.pig2, this.pig3, this.pig4 }



Panda[]

pandaArray



new Panda[] { this.panda, this.panda2, this.panda3, this.panda4 }

Q1 – What is the code for?

- Code for Pigs to turn right one pig at a time?

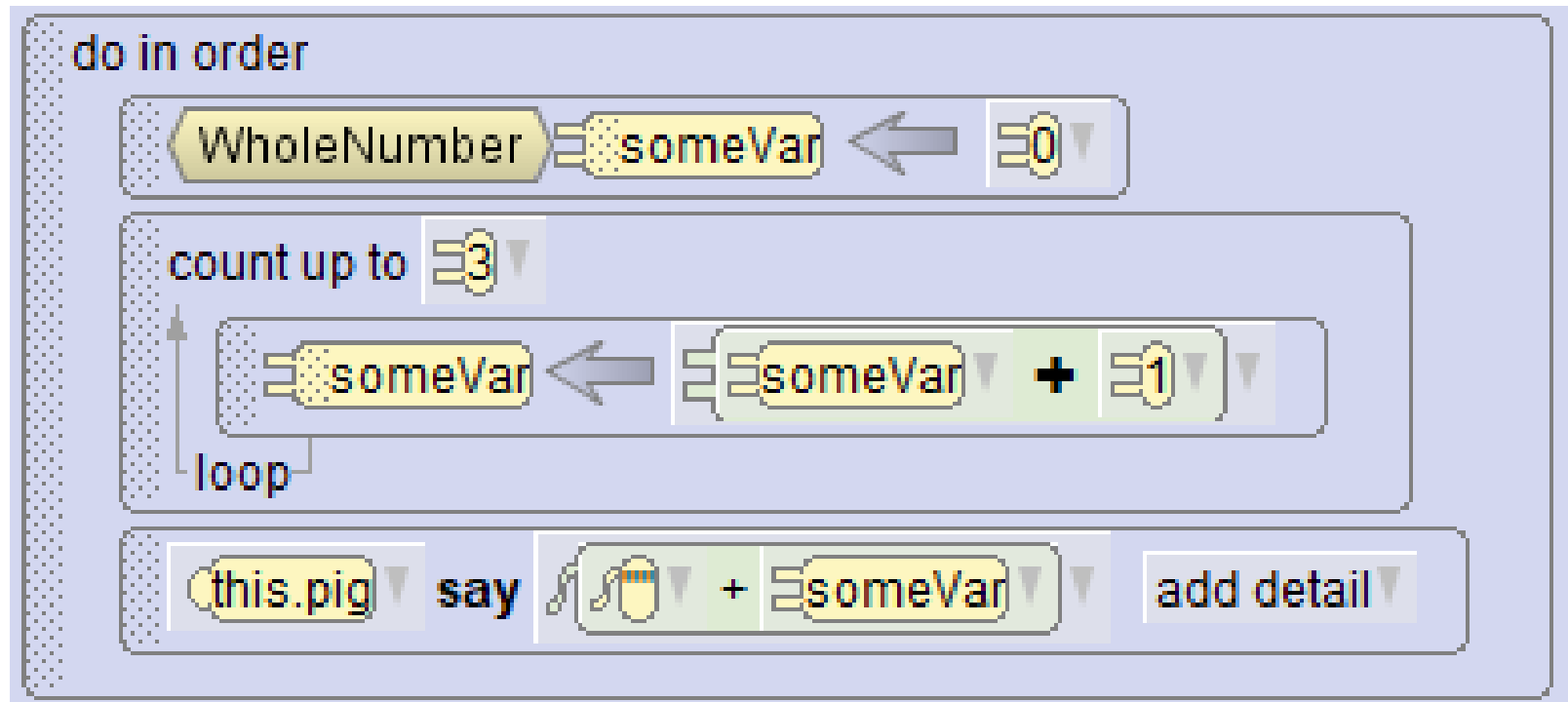
Q2 – What is the code for?

- Code for Pandas to bow **at the same time** (turn forward a little, then turn backward)?

Q3 – Questions about variables

- What is the difference between a const variable and a variable?
- Which Alice construct do you use to change a variable?

Q4 - What is the output of this code?



do in order

WholeNumber

someNum

←

0

count up to 3

someNum

←

someNum

+

1

loop

this.pig4

say

🐷

+

1

add detail

1

add detail

1 (current value)

0

1

2

3

Random ▶

Decimal to Whole Number ▶

Math ▶

Custom WholeNumber...

array length:

this.pigArray.length

this.pandaArray.length

TextString ▶

DecimalNumber ▶

SThing ▶

Q5 -- Consider this code.

Why isn't somenum a choice?

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Q6 – How do I write an **array index loop** to have each pig turn right once?

Q7 – How do I write code to have each pig turn right once one at a time, with one of the pandas turning with each pig?

WOTO-2 More Array Indexing

<http://bit.ly/94f20-1013-2>

- Two arrays, animals are in the arrays from left to right as seen



unmanaged



Pig[]

pigArray



new Pig[] { this.pig, this.pig2, this.pig3, this.pig4 }



Panda[]

pandaArray



new Panda[] { this.panda, this.panda2, this.panda3, this.panda4 }

Class Today

- Array of penguins

That is every other penguin in the array

