CompSci 94 Variables and Array Indexing October 29, 2024



Prof. Susan Rodger

CompSci 94 Fall 2024

Pig and Panda arrays

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





Announcements

- Assignment 4 due tonight!
- Videos and online quiz for next class

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Review1 - What is the code for?

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

Review2 – What is the code for?

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

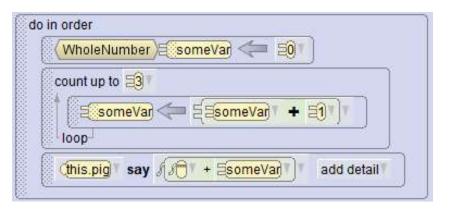
Q1 – Questions about variables

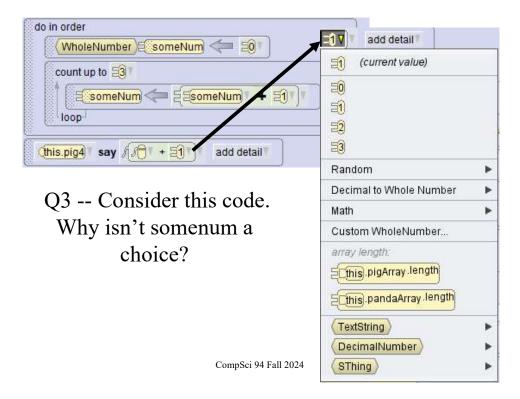
• What is the difference between a const variable and a variable?

• Which Alice construct do you use to change a variable?

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Q2 - What is the output of this code?





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Pig and Panda arrays again

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





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Q5 – 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?

• Fill in missing code:

```
do in order
   Eindex = 50
   count up to 🗧 (this) 🗸 .pigArray 🗸 .length
       Eindex ← Eindex + Ei
                                   CompSci 94 Fall 2024
```

Q4 – How do I write an **array index loop** to have each pig turn right once?

• Fill in the missing code:

```
do in order
    WholeNumber Sindex = 50
   count up to E (this .pigArray .length
    loop
```

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Q6 – What does this code do?

```
do in order
   ∃index = ∃0
   while [sindex] < 5 (this pigArray length
                                            is true
         (this | pigArray | index | say frove up + index
         this pigArray index
                                move CUP , Enew (DecimalNumber ) Sindex
                                                                           duration =0.25
         this .pigArray [ index ]
                                move DOWN , Enew (DecimalNumber) Eindex
                                                                             , duration =0.25
        index 🗢 🗐 index 🕆 🗐
    loop
```

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Q7 – How do you write code to color every other panda green in array?

• Start with no color



• Color every other green (1st one, 3rd one, etc.)



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Q7 – How do you write code to color every other panda green in array?

• What is the missing line of code?

```
do in order

WholeNumber SomeIndex 50 v

while SomeIndex SomeIndex
```

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Class Today

Array of penguins

