CompSci 4  
Chap 10  
Nov 29, 2005

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Announcements

• We will continue to work with arrays this week.
• Assignment 7  
  – Storyboard due  
  – World is due Thursday.

Research Study Continued

• Your choice whether or not to participate
• You will be emailed your id number from Camelia Pearson Eaves (LSRC D230)
• I do not know your number or whether you choose to participate
• Benefit – Take a survey (test) that may help in preparing you for the final exam.

What we will do today

• Continue with Chap 10  
  – Sorting arrays
• Classwork – practice with arrays
Arrays in Alice - review

- In Alice, array is a data structure to organize objects or information
- An array is not visible, it is a way of organizing
- But….
  - Alice has a 3D model to help you “see” the array

Setting elements in array

- Objects in an array are called elements
- Use “let” to set a position in an array
- Using “let”.

Accessing elements in an array

- Can specify an element at a particular location in the array

Repeat for all items in the array – in order

- Use “loop” – complicated version
- Note: index in loop is used in body
- What does this do?

- What does this do?
Swapping two elements in the array at the same time

- Swap the objects at positions 0 and 3

Shuffle the array

- For each item in the array, swap it randomly with another object

SelectionSort the array

- Find the position of the shortest object
  - Swap that object with the object in position 0
- Find the position of the next shortest object
  - Swap that object with the object in position 1
- Etc…. Until the array is sorted.

Classwork Today

- Shuffle Array
- Sort Array