

## CS 102 – Alice Lab 2, Chapter 2

### Due: Friday, February 23, 2007 in class

---

**Directions:** Please read each question carefully prior to completing it. Use the following file naming convention for all your lab assignments: *yourusername\_ex#-#.a2w* Please write the file name on the blank provided by each question where you will be creating an Alice file. Be sure to notice the due date above for each lab assignment. If you have any questions concerning saving your work, attaching files, using the CD in the labs, just ask me in class, or via email, or come see me.

**Name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

### ***Exercises from Chapter 2***

Use the Visual and Textual Storyboard templates attached to complete the following exercises found on page 47 of chapter 2.

1. Complete Exercise 2-1a (Musical Chairs).
2. Complete Exercise 2-1c (Olympic Skater).

For each of the following exercises, create a storyboard and then translate the storyboard to a program. Use the attached Visual and Textual Storyboard templates attached. Include at least one comment in your program. You will find these exercises on pages 48-49.

3. Complete Exercise 4 (Circling Fish). \_\_\_\_\_
4. Complete Exercise 5 (Tortoise Gets a Cookie). \_\_\_\_\_
5. Complete Exercise 6 (Magnet Fun). \_\_\_\_\_

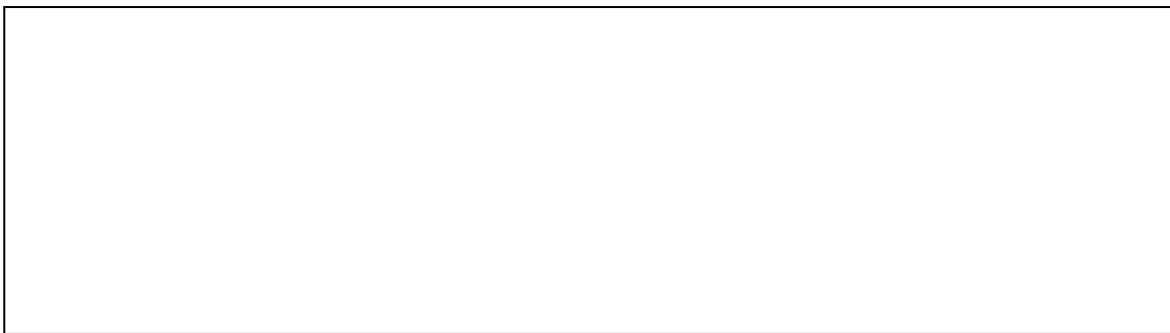
**Concept Questions (Short answer)**

6. Describe each of the four steps used in the process of creating a computer program.

7. (a) What is an *algorithm*?

(b) In what way is an algorithm related to a program?

8. Textual storyboards are written in a particular format. Describe the format and give an example to illustrate your description.



9. (a) Describe what is meant by the term *method*.

(b) What does a method define?

10. What is meant by the phrase "one block of code can be *nested* in another"?
  
11. How do you know whether a computer program has a *bug*?
  
12. What is the purpose of a *set* instruction?
  
13. If comments are ignored by Alice then why do we add comments to our programs?
  
14. What built-in method is used to:
  - (a) change the orientation of an object
  
  
  - (b) display a comic-book style text bubble on the screen
  
  
  - (c) synchronize the movement of one object to the movement of another