Announcements

- Assignment 7
  - Storyboard due today
  - Assignment and web page due Thursday
    - Turn in Alice world, web page, and README file
    - Also link in web page
  - Demo due Thursday
- Last Java classwork is this Thursday
  - All classwork must be checked off/submitted by Thursday, Dec. 7 to receive credit.

Java – Method/function format

- Method must be part of a class
- Method must have a return type
  - Return type is “void” if no return type (method)
  - DO not use the name of the class or method for any variable
- Method has list and type of parameters
- Declare types of all local variables first
  - Exception: loop variables

More on indexOf

String class = “CPS 4 and CPS 6 and CPS 4G”; System.out.println(class.indexOf(“CPS”));
System.out.println(class.indexOf(“CPS”, 6));
System.out.println(class.indexOf(“CPS”, 14));

- indexOf with a string and number argument finds the position of the first occurrence starting from that number position on
Problem

• Given a Phrase and a word, return true if the word occurs at least twice in the phrase.

Java Code - Note

• How many variables are there and what are there types?
• How many times is a variable declared (given its type)?
• Where is the return value?
• How many parameters and what are their types?

Finish Code – What does this do?

```java
public class StringExample {
    public boolean AppearTwice(String phrase, String word) {
        // declare types of variables and initial values
        int firstPosition = -1;
        int secondPosition = -1;
        // find first occurrence
        firstPosition = phrase.indexOf(word);
        // find second occurrence - FILL IN
        if (firstPosition >= 0) {
            secondPosition = phrase.indexOf(
        }
        if (secondPosition > 0) {
            return true;
        }
        return false;
    }
}
```

Classwork today

• Finish classwork from last time and submit
• Classwork today – one APT
  – Repeated Substrings
    • Find the longest repeated substring in a phrase that doesn’t overlap
    • “ABCDABCFG” returns “ABC”
    • “ABABA” returns “AB” (note ABA appears twice but overlaps, so doesn’t count)
    • Use indexOf and subString
    • For every possible substring, see if it occurs again