



Computing & Information Sciences
FLORIDA INTERNATIONAL UNIVERSITY

Mobile Application Development

lecture11

Spring 2012 - COP 4655 U1

M/W 6:25pm – ECS 134

Steve Luis

Agenda

- Renaming instance vars in synthesized accessors
- The use of retain in properties
- Outlet Collections and Tags
- Programming assignment #4



Renaming instance vars in synthesized accessors

```
@synthesize testValue = _testValue;
```

- To access instance variable from methods you must use `_testValue`.
- To access getter/setter use `testValue`.
- Limit the use of the instance var directly.

```
testValue = myResult ; // incorrect.
```

```
self.testValue = myResult; // use setter instead
```

```
[_testValue release]; // example where ok, in "dealloc". Or  
"init"
```

Explore ViewBasedApplication Template

- Synthesized Instance Vars declaration
 - Renaming instance vars
 - Use of self
 - Dealloc
-
- Review Developer Docs on Practical memory management

Outlet Collections

- A special IB Outlet to be associated with a collection of IB objects
- `@property (nonatomic, retain)`
`IBOutletCollection(UISwitch)`
`NSArray *switchCollection;`
- Why retain?

Properties which retain

- The setter of an synthesized accessor which uses “retain” will
 - automatically send retain to the object it is set to
 - release the object it was previously set to

Demo Outlet Collections/Tags

- <http://useyourloaf.com/blog/2011/3/28/interface-builder-outlet-collections.html>
- Download code and test.
- NSArray of UISwitches
- Assigning Tags to each switch to identify which switch was selected.
- Using fast enumeration to reset the values of the switches as a group.

Programming Assignment #4:

Tic – Tac - Toe

- Create a Tic-Tac-Toe game board using UIImageView via nib, loading in a background of your choice. See “Helloworld” for example.
- Add nine buttons
- Each button toggles through “X” – “O” – Blank when pressed
- Create a Reset button that clears all buttons to blank at anytime
- Use Outlet collections to address button text
- Create a model class called Gameboard which holds the values of the buttons.
- Create a method in Gameboard called “toggleButton:” which updates the appropriate button value in the Gameboard and returns the value to display on the button.
- Assignment due: Weds. Feb. 29th at 11pm.
- Comment you code well.
- Manage your memory.

Readings

- Kochan 13, 18 and 19 by Weds. 29th
- Practical Memory Management.
 - https://developer.apple.com/library/mac/documentation/Cocoa/Conceptual/MemoryMgmt/Articles/mmPractical.html#//apple_ref/doc/uid/TP40004447-SW1
- Review Chap. 17 Memory Management for quiz on Monday 27th