



Computing & Information Sciences
FLORIDA INTERNATIONAL UNIVERSITY

Mobile Application Development

lecture2

Spring 2012 - COP 4655 U1

M/W 6:15pm – ECS 138

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Agenda

- Brief intro to Objective-C, Cocoa and Xcode
- Programming Demos

Objective-C Origins

- Created by Brad Cox and Tom Love @ StepStone in the early 1980
- Modeled after Smalltalk-80
- Extension of ANSI C (superset)
- Licensed by Steve Jobs @ NeXT in 1988
- NeXT is purchased by Apple in 1996.
- Developer tools continue Objective-C use in the release of Mac OS X (2001).



Origins of Cocoa

- NeXT creates NeXTStep Frameworks in 1989
- Apple purchases NeXT (1996), creates Cocoa from NeXTStep/OpenStep (1999).
- Notice class references: NSxxx like NSObject

Hello World in Objective-C

```
// main.m

#import <Foundation/Foundation.h>

int main (int argc, const char * argv[])
{

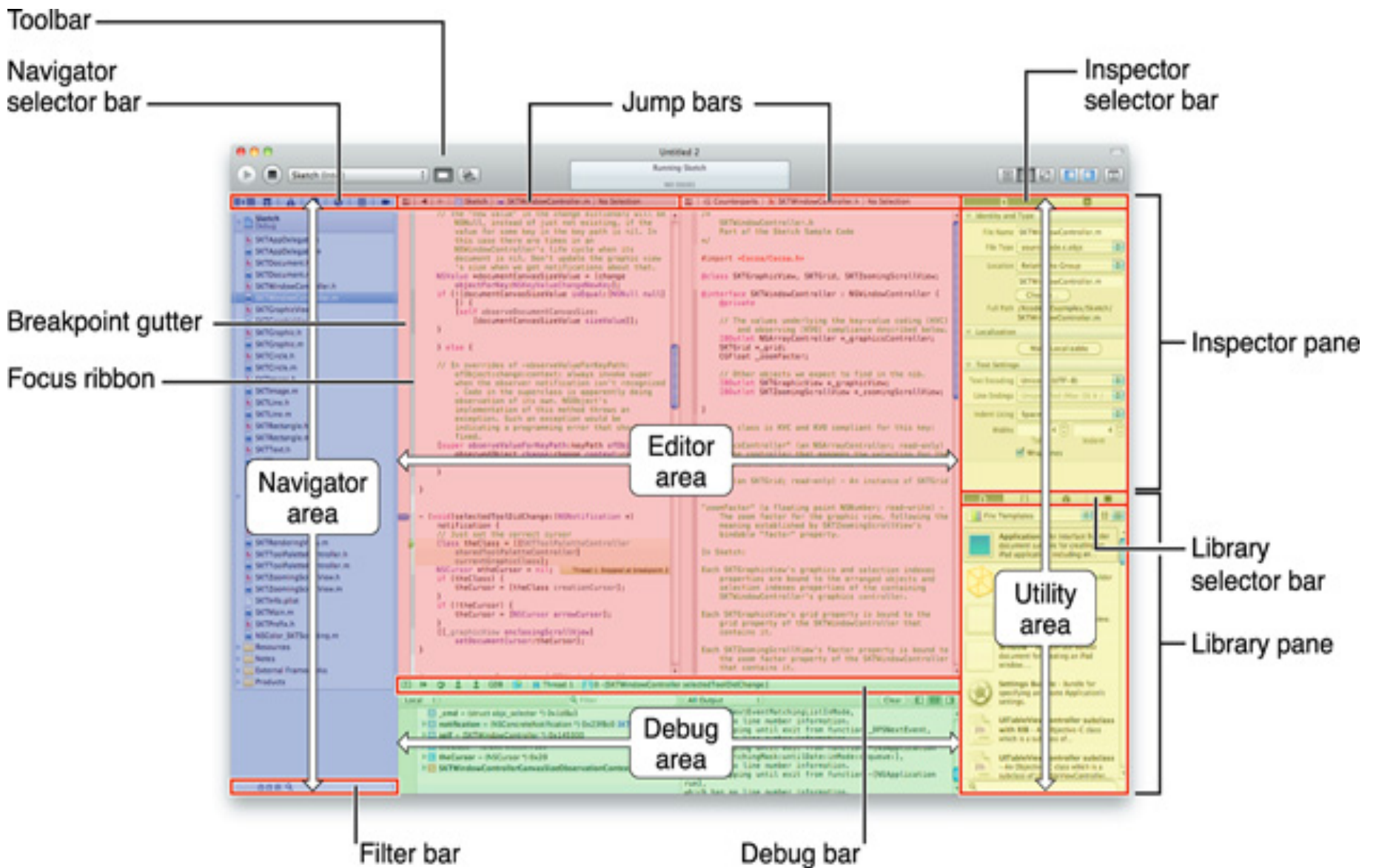
    NSAutoreleasePool * pool = [[NSAutoreleasePool alloc] init];

    // insert code here...
    NSLog(@"Hello, World!");

    [pool drain];
    return 0;
}
```



- XCODE example: Build Hello World via Project Templates/Command Line



Selected Xcode Features

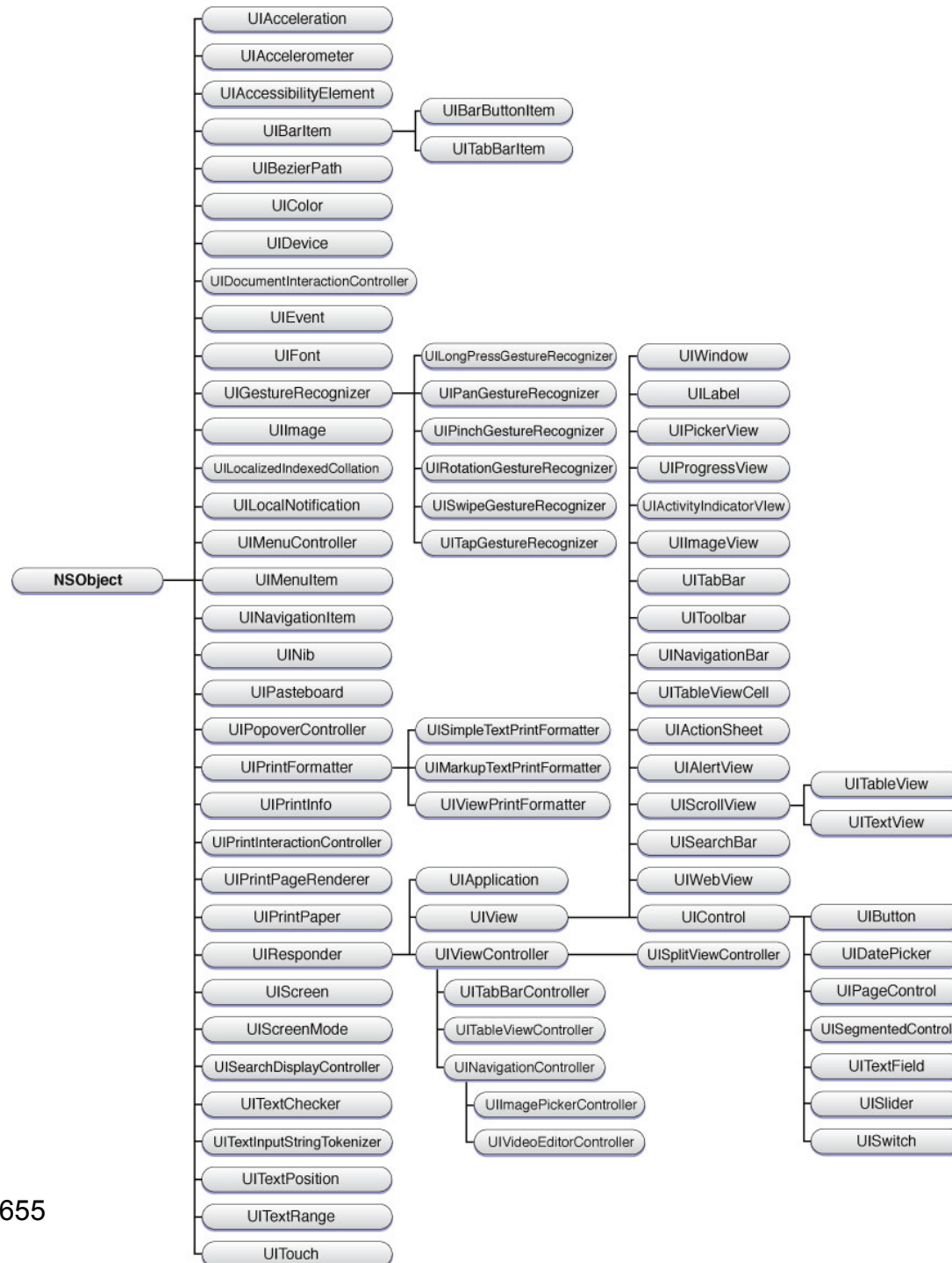
- Project Navigator – Manage files/groups
- Project Templates – pre-built code
- Code editor that includes static code checking, code completion and dynamic hints/tips.
- Interface Builder (IB) prototype U/I and load different application objects like images.
- Debugger that supports breakpoints and inspect symbols
- iOS Simulator
- Extensive built-in documentation

Apple Developer Site

- developer.apple.com
- Framework Docs
- Tutorials
- Sample code

The UIKit framework provides:

- the infrastructure for creating and managing your user interface
- handling events
- supporting multitasking, and
- managing most other interactions with the system



Sample Programs

- UICatalog: A look at the type of user interface objects UIKit provides
- http://developer.apple.com/library/ios/#samplecode/UICatalog/Introduction/Intro.html#//apple_ref/doc/uid/DTS40007710

Assignment

- Review Apple Developer Library:
 - Xcode 4 User Guide
 - Learning Objective-C a primer
 - The Objective-C Programming Language