



**Computing & Information Sciences**  
FLORIDA INTERNATIONAL UNIVERSITY

# Mobile Application Development

## lecture9

Spring 2012 - COP 4655 U1

M/W 6:25pm – ECS 138

Steve Luis

# Agenda

- NSDictionary
- NSSet
- Categories
- #define #pragma



# Categories

- Categories allow you to group methods and/or extend a class definition.
- Extending an existing class definition without subclassing
- Partition methods into groups
- You can reference existing ivars – cannot add additional ivars
- You can override method – you cannot access the original declared method.
- Don't forget to `#import` class header file before you declare a category.

# Extend a class

```
#import <Foundation/Foundation.h>  
@interface NSObject (SpecialPrint)  
- (void) printXYZ ;  
@end
```

```
@implementation NSObject (SpecialPrint)  
- (void) printXYZ {  
    // some work here  
}
```

# Dictionary

- A dictionary is a collection of data consisting of key-object pairs.
- Obtain the object by its key.
- Key must be unique, usually a string.
- Value can be any object type, but never nil.
- Immutable and mutable types
- Can be searched and enumerated (retrieve all key-object pairs).

# Dictionary: Enumeration Demo

```
NSDictionary *glossary =  
    [NSDictionary dictionaryWithObjectsAndKeys:  
        @"value1", @"key1",  
        @"value2", @"key2",  
        @"value3", @"key3", nil];  
[...]  
for (NSString *key in glossary)  
    NSLog(@"%@ %@", key, [glossary objectForKey: key]);
```

Note: may **not** retrieve in the order it was added!

# Sets

- A set is a collection of unique objects, can be immutable/mutable.
- Operations:
  - Search
  - Add
  - Remove members (mutable)
  - Comparing
  - Intersection/union

# Example

```
NSMutableSet *mySet = [NSMutableSet setWithObjects: @"test1", @"test2", nil];
```



# #define

- #define allows you to define simple macros identified by precompiler

```
#define TRUE 1 // symbol constant
```

- Mostly used for constants and expressions

```
#define XSQUARE(x) x * x
```

- Store in Constants.h file and use #import "Constants.h"
- Functions like find and replace.
- Define symbol using capital letters

# #pragma

- #pragma defines a special action such as defining a location in code
- Insert in code to create section between methods.

#pragma -

#pragma mark YourSectionName

# Review

- Kochan Chap. 15 Program 15.16
- Categories
- #define
- Enumeration

# Readings

- Chapter 11: Categories
- Finish Kochan Chapter 15: Dictionary and Sets
- Read Chapter 12: Preprocessor
- Read Chapter 17: Memory Management
  
- Quiz on Monday excluding Chap. 17.