



Computing & Information Sciences
FLORIDA INTERNATIONAL UNIVERSITY

Mobile Application Development

lecture7

Fall 2011 - COP 4655 U1

T/R 5:00 - 6:15pm – ECS 134

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Agenda

- NSNumber, NSString, NSArray
- Lab Assignment: Address Book



NSNumber

- For each basic data type, a class method exists that allocates an NSNumber object and sets it to a specified value.
- `numberWith...` `numberWithLong:`
- signed or unsigned char, short int, int, long int, long long int, float, or double or as a BOOL
- See table 15.1 for Creation and Retrieval Methods

numberWith vs. initWith

- numberWith is a class method that creates the object ... no alloc needed, no release needed.
- initWith is an instance method that initializes the NSNumber object with the value. You must alloc and release the object when you are done.
- Note: you cannot change the value to an NSNumber object once assigned.

NSString

@”Hello World”

- Constant or literal string object
- The string is immutable, cannot be change.
- NSString type is immutable vs. NSMutableString which is mutable (change value of object)

```
NSString *str = @”Hello World”;
```

```
NSLog (@”%@”, str);
```

Description method

- Use %@ to display arrays, sets and dictionaries.
- Override description instance method to display your object values, eg.

- (NSString *) description

{

return [NSString stringWithFormat: @"%i/%i", num, den];

}

[...]

NSLog(@"The value of the fraction is %@", f1);

[...]

The value of the fraction is 1/2

NSMutableString

- Subclass of NSString, all methods inherited: compare, length, stringByAppendingString, isEqualToString, uppercaseString, substringToIndex, substringFromIndex, ...
- NSMutableString *str = [NSMutableString stringWithString: @"HelloWord"];
- [str insertString: @"mutable" atIndex: [str length]];

Array Objects

- Ordered collection of objects
- NSArray is immutable vs. NSMutableArray is mutable

```
NSArray *numbers= [NSArray arrayWithObjects:  
@"one", @"two", @"three", nil];
```

```
NSLog(@" %@", [numbers objectAtIndex: 0]);
```

“one”

NSMutableArray

```
NSMutableArray *numbers= [NSMutableArray  
 arrayWithObjects: @"one", @"two", @"three",  
 nil];
```

```
[numbers addObject: @"four"];
```

```
NSLog(@" %@ ", [numbers objectAtIndex: 3]);  
"four"
```

```
NSLog(@"%@ ", numbers);
```

Lab Assignment #2

- Implement the Address Book on page 332-349 in Kochan– See Appendix B
- Include synthesized address card methods
- NSArray to store multiple cards
- Lookup method
- Remove card method
- Implement the test program to exercise all methods.