

Objective-C, creating your own classes

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As an introduction...

Structure of a class = interface + implementation

- interface in «.h» file
- implementation in «.m» file

About classes

- Any class should inherit from NSObject
- Description of instance variables (attributes)
- Behavior defined in methods

Keyword

- Interface : `@interface @end`
- Implementation: `@implementation @end`

Example, Student (interface)

```
#import <Foundation/Foundation.h>

@interface Student : NSObject {
    // instance variables
    int number;
    NSString *name;
}

// methods
- (int) myNumber;
- (NSString*) myName;
- (NSString*) identity;

- (void) setNumber:(int)aNumber;
- (void) setName:(NSString*)aName;
@end
```

Example, Student (implementation)

```
@implementation Student
```

```
- (int) myNumber {  
    return number;  
}
```

```
- (NSString*) myName {  
    return [NSString stringWithFormat:@"%@", name];  
}
```

```
- (NSString*) identity {  
    return [NSString stringWithFormat:@"%@ (%d)", name, number];  
}
```

```
- (void) setNumber:(int)aNumber {  
    number = aNumber;  
}
```

```
- (void) setName:(NSString*)aName {  
    name = [aName copy];  
}
```

```
@end
```

Object creation

Two steps

- alloc
 - ▶ Class method
- init
 - ▶ instance method
- These methods are inherited from NSObject
- The «mythic creation code» is

```
Student *s= [[Student alloc] init];
```

Overload of init?

- As much as you want...
... as long as there are distinct signatures

As a conclusion...

- Easy, isn't it?
- You need to get used to the «[dest msg]» notation

