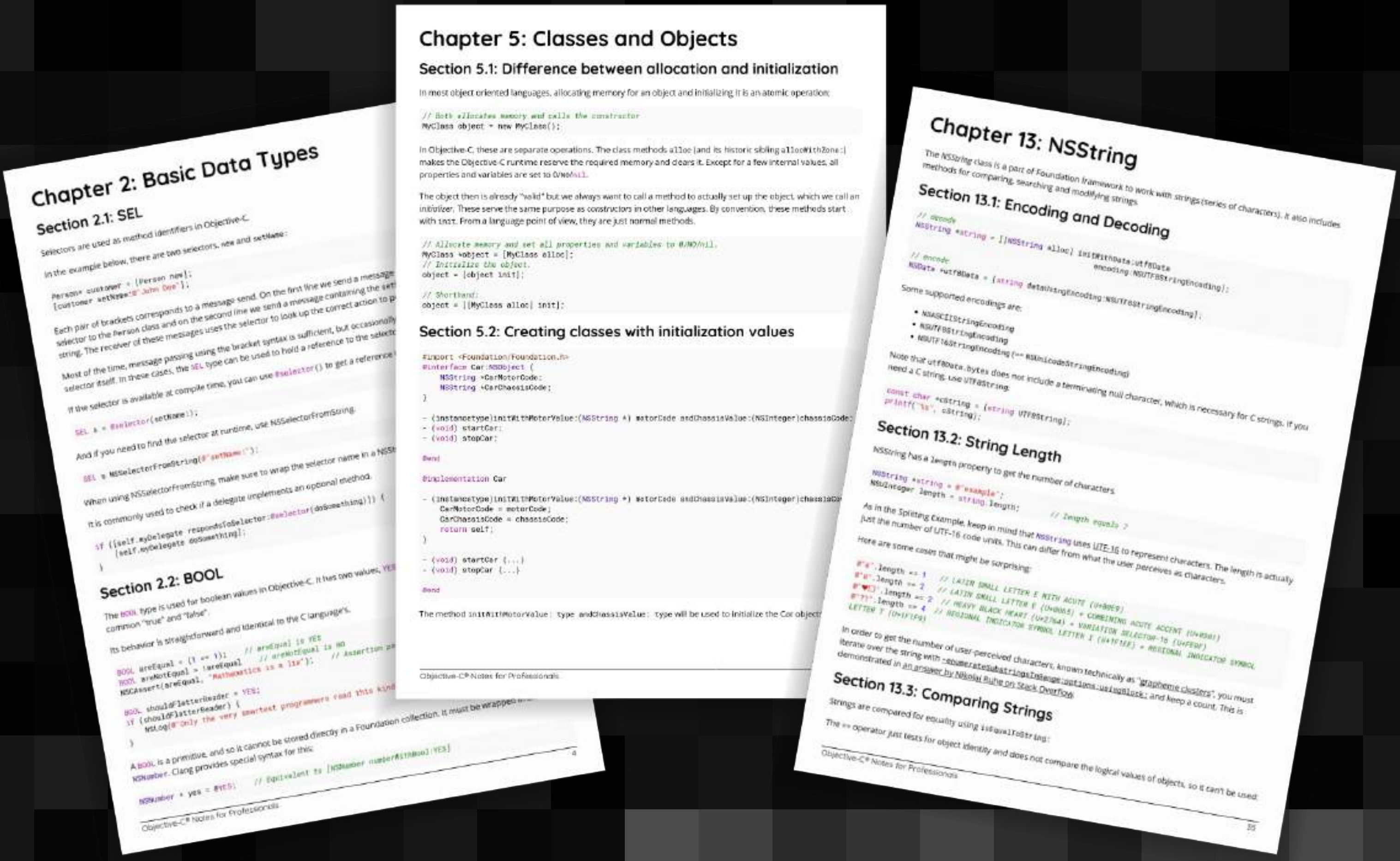
Objective-C®

Notes for Professionals



Chapter 2: Basic Data Types

Section 2.1: SEL

Section 2.2: BOOL

Chapter 5: Classes and Objects

Section 5.1: Difference between allocation and initialization

In most object oriented languages, allocating memory for an object and initializing it is an atomic operation:

```
// Both allocates memory and calls the constructor
MyClass object = new MyClass();
```

In Objective-C, these are separate operations. The class methods alloc (and its historic sibling allocWithZone:) makes the Objective-C runtime reserve the required memory and clears it. Except for a few internal values, all properties and variables are set to 0/NO/nil.

The object then is already "valid" but we always want to call a method to actually set up the object, which we call an initializer. These serve the same purpose as constructors in other languages. By convention, these methods start with init. From a language point of view, they are just normal methods.

```
// Allocate memory and set all properties and variables to 0/NO/nil.
MyClass *object = [MyClass alloc];
// Initialize the object.
object = [object init];

// Shorthand:
object = [[MyClass alloc] init];
```

Section 5.2: Creating classes with initialization values

```
#import <Foundation/Foundation.h>
@interface Car:NSObject {
    NSString *CarMotorCode;
    NSString *CarChassisCode;
}

- (instancetype)initWithMotorValue:(NSString *) motorCode andChassisValue:(NSInteger)chassisCode;
- (void) startCar;
- (void) stopCar;

@end

@implementation Car

- (instancetype)initWithMotorValue:(NSString *) motorCode andChassisValue:(NSInteger)chassisCode
    CarMotorCode = motorCode;
    CarChassisCode = chassisCode;
    return self;
}

- (void) startCar {...}
- (void) stopCar {...}

@end
```

The method initWithMotorValue: type andChassisValue: type will be used to initialize the Car object

Objective-C® Notes for Professionals

Chapter 13: NSString

Section 13.1: Encoding and Decoding

Section 13.2: String Length

Section 13.3: Comparing Strings

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