巨匠線上真人

iOS行動程式基礎開發上架

swift：結構和類別

本堂教學重點

1. 結構和類別的語法
2. 結構實體和類別實體
3. 存取屬性
4. 結構的智慧型初始化
4. 結構和列舉是值類型
5. 類別是參考類型
6. 識別運算子

1.結構和類別的語法

```
struct SomeStructure {
    // structure definition goes here
}
class SomeClass {
    // class definition goes here
}
```

```
struct Resolution {
    var width = 0
    var height = 0
}
class VideoMode {
    var resolution = Resolution()
    var interlaced = false
    var frameRate = 0.0
    var name: String?
}
```

2.建立結構和類別的實體

- `let someResolution = Resolution()`
- `let someVideoMode = VideoMode()`

3.存取屬性

```
print("The width of someResolution is \(someResolution.width)")
// Prints "The width of someResolution is 0"

print("The width of someVideoMode is \(someVideoMode.resolution.width)")
// Prints "The width of someVideoMode is 0"

someVideoMode.resolution.width = 1280
print("The width of someVideoMode is now \(someVideoMode.resolution.width)")
// Prints "The width of someVideoMode is now 1280"

let vga = Resolution(width: 640, height: 480)
```

4.結構的智慧型初始化

- `let hd = Resolution(width: 1920, height: 1080)`
- `var cinema = hd`

4.結構的智慧型初始化

```
let hd = Resolution(width: 1920, height: 1080)
var cinema = hd

cinema.width = 2048

print("cinema is now \(cinema.width) pixels wide")
// Prints "cinema is now 2048 pixels wide"

print("hd is still \(hd.width) pixels wide")
// Prints "hd is still 1920 pixels wide"
```

4.結構的智慧型初始化

```
enum CompassPoint {
    case north, south, east, west
    mutating func turnNorth() {
        self = .north
    }
}
var currentDirection = CompassPoint.west
let rememberedDirection = currentDirection
currentDirection.turnNorth()

print("The current direction is \(currentDirection)")
print("The remembered direction is \(rememberedDirection)")
// Prints "The current direction is north"
// Prints "The remembered direction is west"

```

5.類別是參考類型

```
let tenEighty = VideoMode()
tenEighty.resolution = hd
tenEighty.interlaced = true
tenEighty.name = "1080i"
tenEighty.frameRate = 25.0

let alsoTenEighty = tenEighty
alsoTenEighty.frameRate = 30.0

print("The frameRate property of tenEighty is now \(tenEighty.frameRate)")
// Prints "The frameRate property of tenEighty is now 30.0"
```

6.識別運算子

```
if tenEighty === alsoTenEighty {
    print("tenEighty and alsoTenEighty refer to the same VideoMode instance.")
}
// Prints "tenEighty and alsoTenEighty refer to the same VideoMode instance."
```