巨匠線上真人

iOS行動程式基礎開發上架

swift：subscripts

本堂教學重點

1. subscript語法
2. subscript使用
3. 可nil的subscript

1.subscript語法

```
subscript(index: Int) -> Int {
    get {
        // return an appropriate subscript value here
    }
    set(newValue) {
        // perform a suitable setting action here
    }
}
```

```
subscript(index: Int) -> Int {
    // return an appropriate subscript value here
}
```

```
struct TimesTable {
    let multiplier: Int
    subscript(index: Int) -> Int {
        return multiplier * index
    }
}
let threeTimesTable = TimesTable(multiplier: 3)
print("six times three is \(threeTimesTable[6])")
// Prints "six times three is 18"
```

2.subscript使用

- `var numberOfLegs = ["spider": 8, "ant": 6, "cat": 4]`
- `numberOfLegs["bird"] = 2`

3.可nil的subscript

```
struct Matrix {
    let rows: Int, columns: Int
    var grid: [Double]
    init(rows: Int, columns: Int) {
        self.rows = rows
        self.columns = columns
        grid = Array(repeating: 0.0, count: rows * columns)
    }
    func indexIsValid(row: Int, column: Int) -> Bool {
        return row >= 0 && row < rows && column >= 0 && column < columns
    }
    subscript(row: Int, column: Int) -> Double {
        get {
            assert(indexIsValid(row: row, column: column), "Index out of range")
            return grid[(row * columns) + column]
        }
        set {
            assert(indexIsValid(row: row, column: column), "Index out of range")
            grid[(row * columns) + column] = newValue
        }
    }
}
```

3.可nil的subscript

- `matrix[0, 1] = 1.5`
- `matrix[1, 0] = 3.2`

- `let someValue = matrix[2, 2]`