

# «MyTableView»

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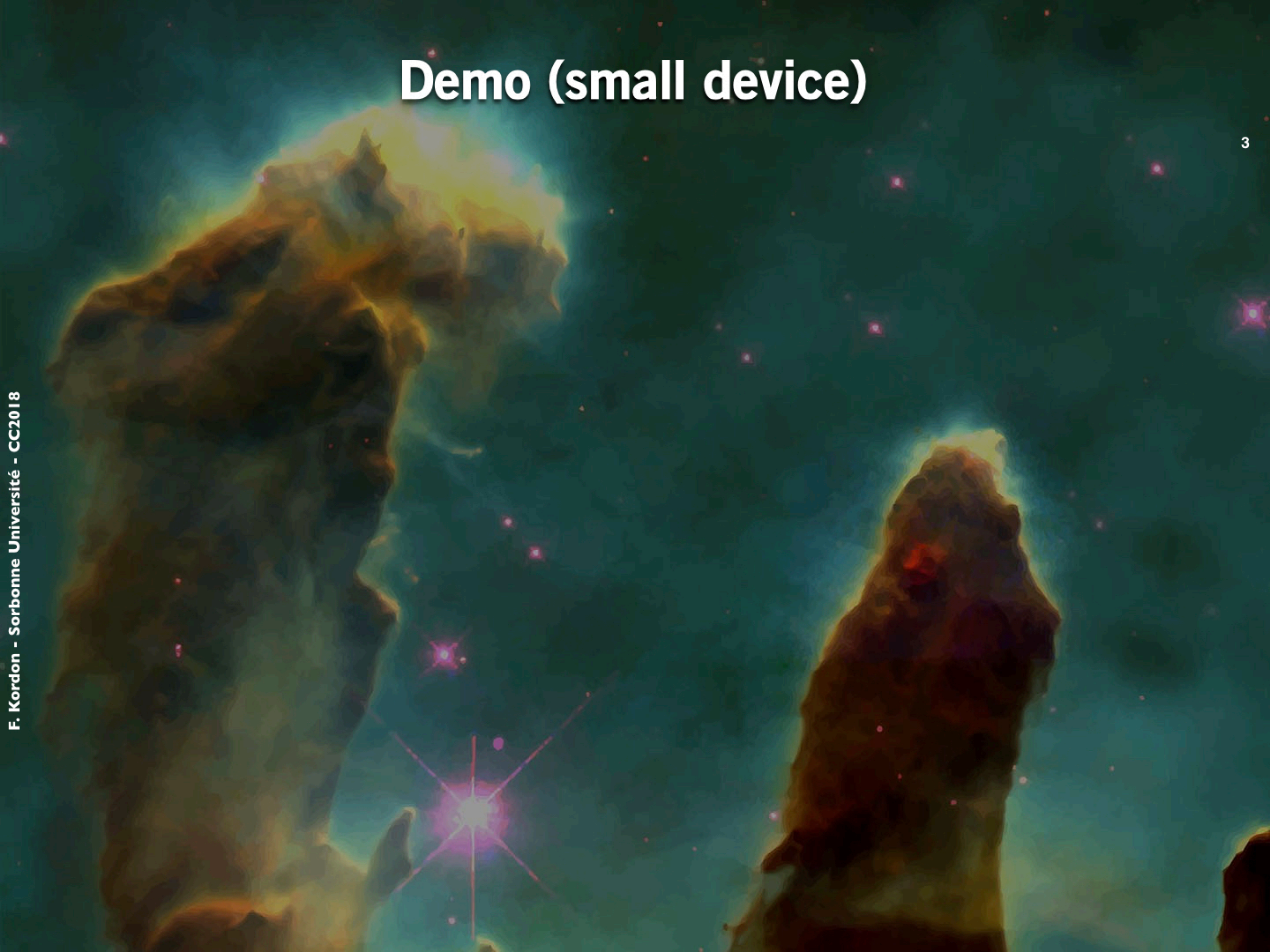


# Goal of the example

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- 📱 **Display a table view**
- 📱 **Handle it**
  - 🔗 Through delegation
    - ▶ **UITableViewDataSource**
    - ▶ **Define its content**
    - ▶ **Appropriately handle its scrolling**

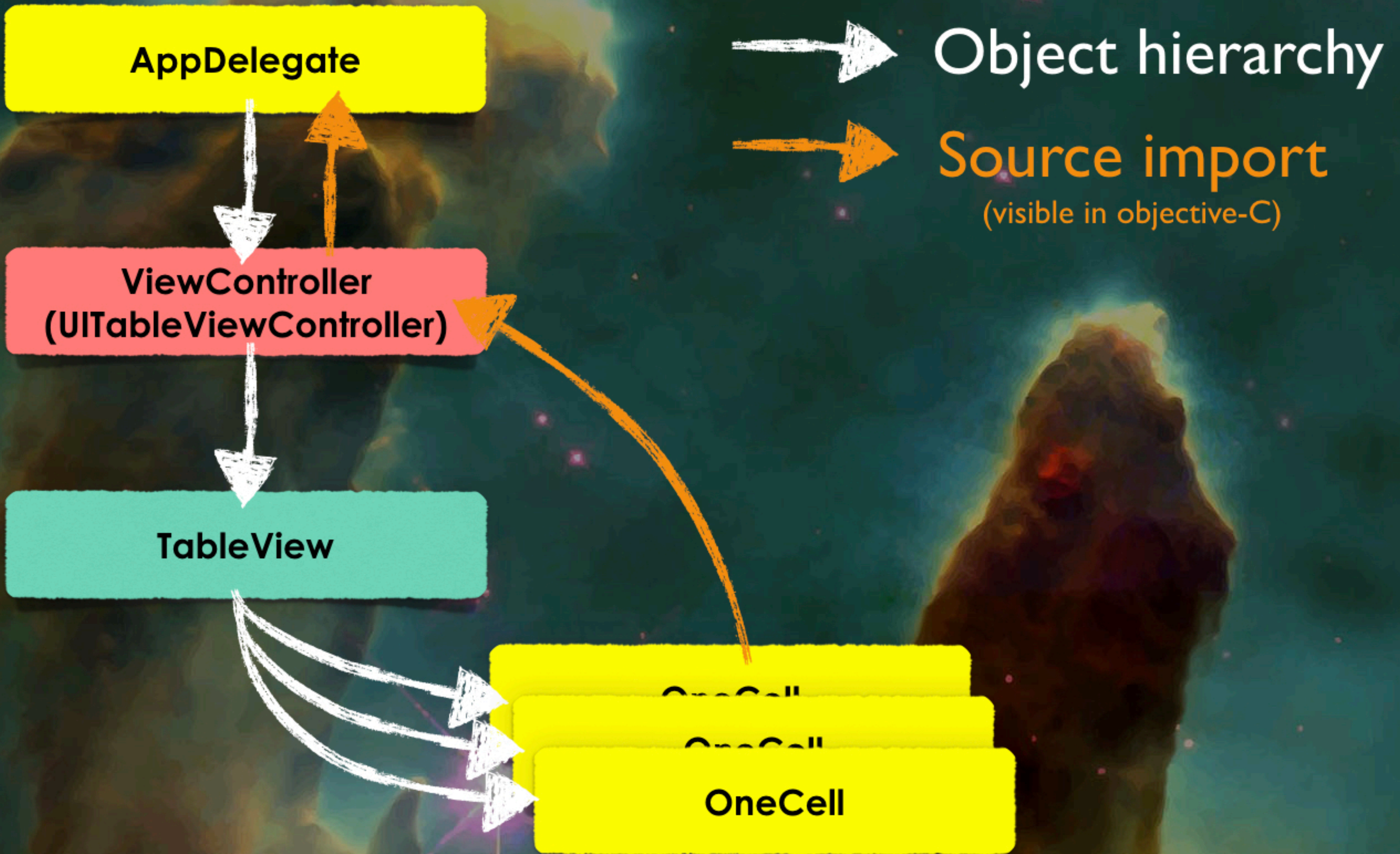
# Demo (small device)



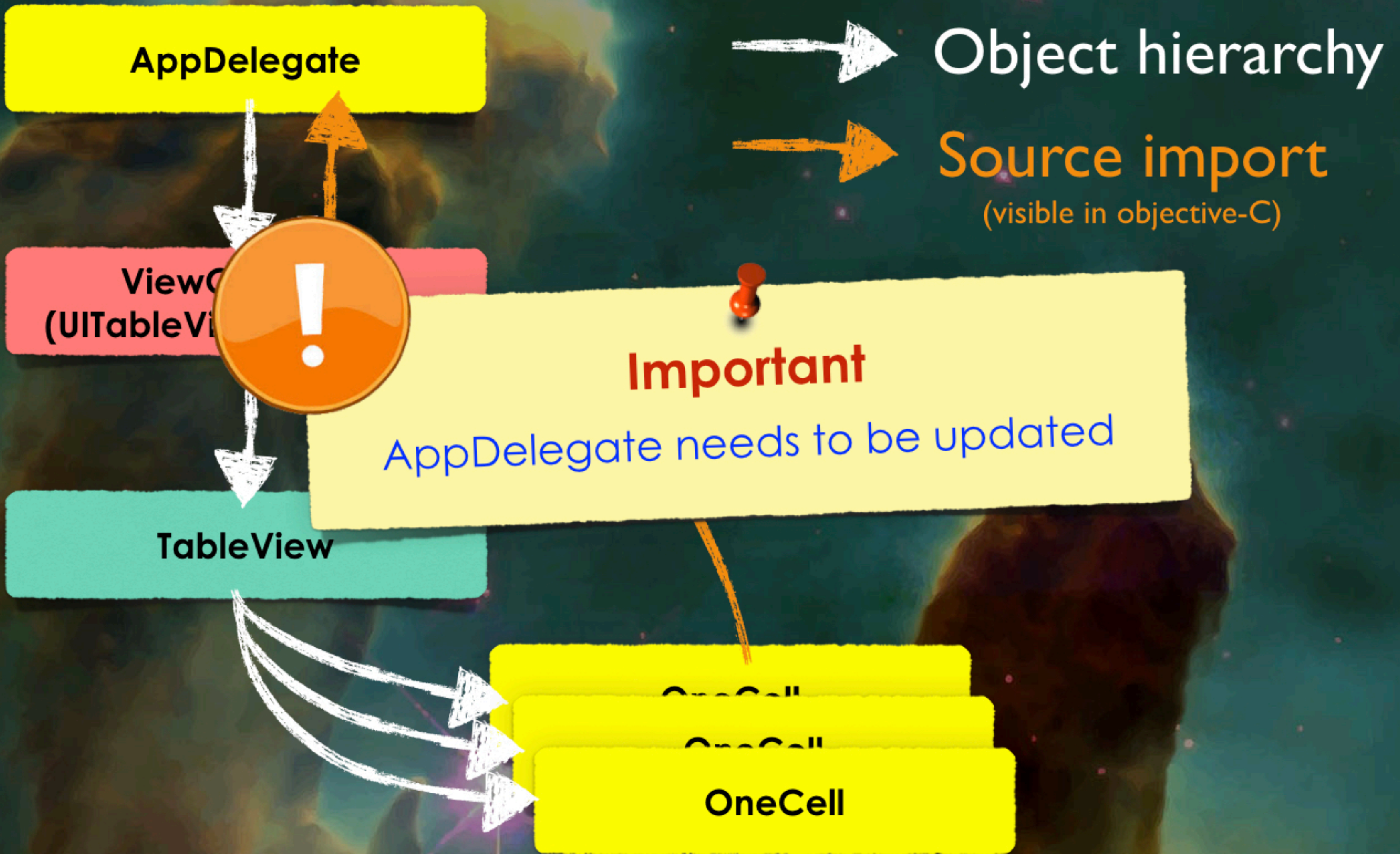
# Demo (large device)



# Application's architecture



# Application's architecture



# AppDelegate

```
import UIKit

@UIApplicationMain
class AppDelegate: UIResponder, UIApplicationDelegate {

    var window: UIWindow?

    func application(_ application: UIApplication,
                    didFinishLaunchingWithOptions
                    launchOptions: [UIApplication.LaunchOptionsKey: Any]?) -> Bool {
        // Override point for customization after application launch.
        let tvc = ViewController(style: .plain)
        let nvc = UINavigationController(rootViewController: tvc) // to be see later
        window!.rootViewController = nvc
        window!.makeKeyAndVisible()
        return true
    }

    func applicationWillResignActive(_ application: UIApplication) {...}

    func applicationDidEnterBackground(_ application: UIApplication) {...}

    func applicationWillEnterForeground(_ application: UIApplication) {...}

    func applicationDidBecomeActive(_ application: UIApplication) {...}

    func applicationWillTerminate(_ application: UIApplication) {...}
}
```

# OneCell

```
//  
// OneCell.swift  
// MyTableView  
//  
// Created by Fabrice Kordon on 23/10/2018.  
// Copyright © 2018 Sorbonne Université. All rights reserved.  
//  
  
import UIKit  
  
class OneCell: NSObject {  
  
    var label = ""  
    var detail = ""  
  
    init(l : String, d : String) {  
        label = l  
        detail = d  
    }  
}
```



# ViewController

```
import UIKit

class ViewController: UITableViewController { // Inherits from UITableViewController

    private var count = 1
    private var content = [[OneCell]]()

    override init(style: UITableView.Style) {
        super.init(style: style)
        self.tableView.sectionHeaderHeight = 80.0
        self.tableView.separatorColor = .blue
        self.tableView.separatorStyle = .singleLine
        for _ in 1...2 { // _ because index unused
            var inSection = [OneCell]()
            for _ in 1...10 { // _ because index unused
                inSection += [OneCell(l: "Cell #\(count)",
                                     d: "detail #\(count)")]
                count += 1
            }
            content += [inSection]
        }
        self.tableView.dataSource = self
        self.tableView.delegate = self
        self.title = "My elements"
    }

    required init?(coder aDecoder: NSCoder) {
        // There is nothing else to do there in fact
        super.init(coder: aDecoder)
    }
}
```

# ViewController

```
// UITableViewDataSource protocol

override func numberOfSections(in tableView: UITableView) -> Int {
    return content.count
}

override func tableView(_ tableView: UITableView,
                        numberOfRowsInSection section: Int) -> Int {
    return content[section].count
}

override func tableView(_ tableView: UITableView,
                        titleForHeaderInSection section: Int) -> String? {
    return "Section \(section + 1)"
}

override func tableView(_ tableView: UITableView,
                        titleForFooterInSection section: Int) -> String? {
    return "End section \(section + 1)"
}
```

# ViewController

```
override func tableView(_ tableView: UITableView,
                        cellForRowAt indexPath: IndexPath) -> UITableViewCell {

    var cellId = ""
    if (indexPath as NSIndexPath).row % 2 == 1 {
        cellId = "odd"
    } else {
        cellId = "even"
    }
    var cell = tableView.dequeueReusableCell(withIdentifier: cellId)
    if cell == nil {
        cell = UITableViewCell(style: .subtitle, reuseIdentifier: cellId)
        if (indexPath as NSIndexPath).row % 2 == 1 {
            cell!.textLabel?.textColor = UIColor.red
        } else {
            cell!.textLabel?.textColor = UIColor.blue
        }
    }
    let cont = content[indexPath.section][indexPath.row]
    cell!.textLabel?.text = cont.label
    cell!.detailTextLabel?.text = cont.detail
    return cell!
}
}
```






# ViewController

```
override func tableView(_ tableView: UITableView,
                        cellForRowAt indexPath: IndexPath) -> UITableViewCell {
    var cellId = ""
    if (indexPath as NSIndexPath).row % 2 == 1 {
        cellId = "odd"
    } else {
        cellId = "even"
    }
    var cell = tableView.dequeueReusableCell(withIdentifier: cellId)
    if cell == nil {
        cell = UITableViewCellStyleDefault.dequeueReusableCell(withIdentifier: cellId)
        if (indexPath.section % 2 == 1) {
            cell!.textLabel?.text = "odd"
        } else {
            cell!.textLabel?.text = "even"
        }
    }
    let cont = content[indexPath.section][indexPath.row]
    cell!.textLabel?.text = cont.label
    cell!.detailTextLabel?.text = cont.detail
    return cell!
}
```



**Did you noticed?**  
no viewDidLoad!!!

# As a conclusion...

-  **Nice is'n't it?**
-  **Remind that «all is included»**
  -  Device type (small, large, etc.)
  -  Device orientation
-  **You must use it if needed**

