

«NotifyMe»

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Goal of the example



Play with UNNotifications (in the simple way)

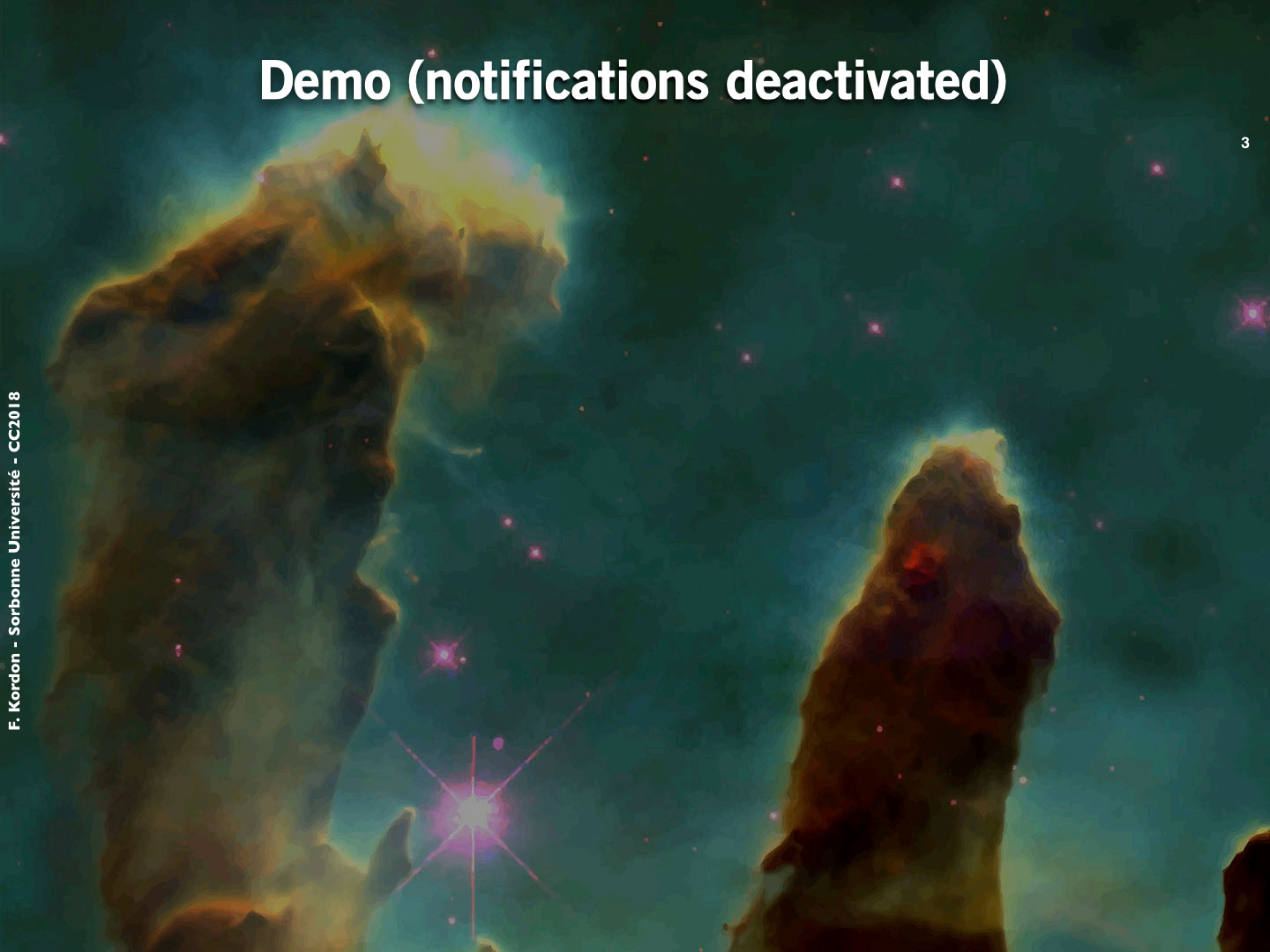
- 🔔 Send an immediate notification
 - ▶ Observe it is lost
- 🔔 Send a delayed notification
- 🔔 Play with the application's badge
 - ▶ And suppress it



Observe what's going on the device

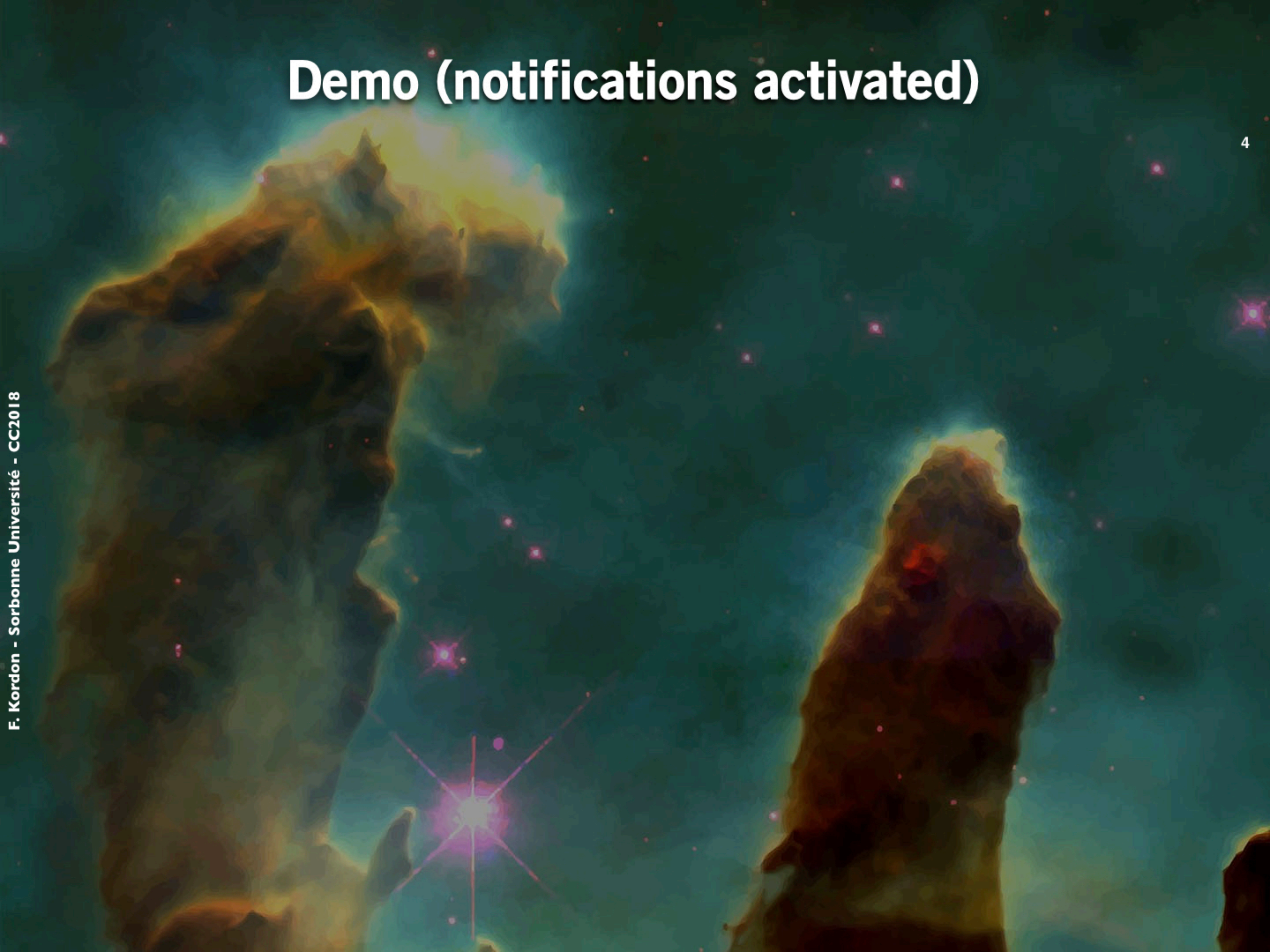
Demo (notifications deactivated)

3



Demo (notifications activated)

4



AppDelegate

```
import UIKit
import UserNotifications // Do not forget it!

@UIApplicationMain
class AppDelegate: UIResponder, UIApplicationDelegate {

    var window: UIWindow?
```

AppDelegate

```
func application(_ application: UIApplication,
                didFinishLaunchingWithOptions
                launchOptions: [UIApplication.LaunchOptionsKey: Any]?) -> Bool {
    // Override point for customization after application launch.
    let center = UNUserNotificationCenter.current()
    let rvc = ViewController()
    self.window?.rootViewController = rvc
    center.requestAuthorization(options:[.badge, .alert, .sound]) { (ok, err) in
        if !ok {
            rvc.deactivate()
            let a = UIAlertController(title: "Problem",
                                     message: "Notification are deactivated",
                                     preferredStyle: .alert)
            a.addAction(UIAlertAction(title: "OK",
                                     style: .default,
                                     handler: nil))
            self.window?.rootViewController?.present(a,
                                                      animated: true,
                                                      completion: nil)
        }
    }
    window?.makeKeyAndVisible()
    return true
}
```

AppDelegate

```
// No change then  
func applicationWillResignActive(_ application: UIApplication) {}  
func applicationDidEnterBackground(_ application: UIApplication) {}  
func applicationWillEnterForeground(_ application: UIApplication) {}  
func applicationDidBecomeActive(_ application: UIApplication) {}  
func applicationWillTerminate(_ application: UIApplication) {}  
}
```

ViewController

```
import UIKit
import UserNotifications

class ViewController: UIViewController {

    private let b1 = UIButton(type : .system)
    private let b2 = UIButton(type : .system)
    private let b3 = UIButton(type : .system)

    private var answer : UITextField?
    private var count = 1
```


ViewController

```
override func viewDidLoad() {
    super.viewDidLoad()
    let largeur = UIScreen.main.bounds.size.width
    self.view = UIView(frame: UIScreen.main.bounds)
    self.view.backgroundColor = UIColor.white

    b1.setTitle("Send an alert", for: .normal)
    b1.frame = CGRect(x: largeur / 2 - 80, y: 140,
                     width: 160, height: 40)
    b1.addTarget(self, action: #selector(newNotification),
                 for: .touchDown)

    b2.setTitle("Suppress alerts", for: .normal)
    b2.frame = CGRect(x: largeur / 2 - 80, y: 180,
                     width: 160, height: 40)
    b2.addTarget(self, action: #selector(suppressAnnotations),
                 for: .touchDown)

    b3.setTitle("Suppress the badge", for: .normal)
    b3.frame = CGRect(x: largeur / 2 - 80, y: 220,
                     width: 160, height: 40)
    b3.addTarget(self, action: #selector(resetBadge),
                 for: .touchDown)

    self.view.addSubview(b1)
    self.view.addSubview(b2)
    self.view.addSubview(b3)
}
```

ViewController

```
func deactivate() {
    b1.removeFromSuperview()
    b2.removeFromSuperview()
    b3.removeFromSuperview()
}

@objc func newNotification () {
    let a = UIAlertController(title: "Create an alert",
                             message: "Please enter the message",
                             preferredStyle: .alert)
    a.addAction(configurationHandler: {textField -> Void in
        textField.text = "My message \(self.count)"
        self.count += 1
        self.answer = textField
    })
    a.addAction(UIAlertAction(title: "Cancel",
                              style: .cancel,
                              handler: nil))
    a.addAction(UIAlertAction(title: "Send now",
                              style: .default,
                              handler: activateNow(a:)))
    a.addAction(UIAlertAction(title: "Send in 10 seconds",
                              style: .default,
                              handler: activateIn10Secs(a:)))
    self.present(a, animated: true, completion: nil)
}
```

ViewController

```
func activateNow (a : UIAlertAction) {  
    self.activateNotification(delay: false)  
}  
  
func activateIn10Secs (a : UIAlertAction) {  
    self.activateNotification(delay: true)  
}
```

ViewController

```
func activateNotification (delay : Bool) {
    let centre = UNUserNotificationCenter.current()
    let n = UNMutableNotificationContent()
    n.title = "Listen everybody!"
    if answer?.text != nil {
        n.body = (answer?.text!)!
    }
    n.categoryIdentifier = "NotifyMe-Alert"
    n.sound = UNNotificationSound.default
    n.badge = NSNumber(value: UIApplication.shared.applicationIconBadgeNumber + 1)
    // Another way to change notifications
    // UIApplication.shared.applicationIconBadgeNumber += 1
    var t : UNTimeIntervalNotificationTrigger?
    if delay {
        t = UNTimeIntervalNotificationTrigger(timeInterval: 5,
                                             repeats: false)
    } else {
        t = UNTimeIntervalNotificationTrigger(timeInterval: 0.1,
                                             repeats: false)
    }
    // UUID -> to retrieve unique identifiers (otherwise, messages are lost)
    let nr = UNNotificationRequest(identifier: UUID().uuidString,
                                   content: n, trigger: t!)
    centre.add(nr, withCompletionHandler: nil)
}
```

ViewController

```
@objc func suppressAnnotations () {  
    let centre = UNUserNotificationCenter.current()  
    centre.removeAllDeliveredNotifications()  
}  
  
@objc func resetBadge () {  
    UIApplication.shared.applicationIconBadgeNumber = 0  
}
```

As a conclusion...

Simple is'n't it?

- You may add some interactivity to you Apps
 - ▶ Typically task managers...

Remember, you may have repeated events

- Alarm clock (every day)
- Pay you bills (every month)
- Birthdays (every year)



At this stage...

- No notification when the App is running + no action associated to notifications
 - ▶ have a look at the next video