

UINavigationController

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Navigation?



Handling stack of views



Push/pop

- ▶ Push to be implemented
- ▶ Pop for free



Brings a «navigation bar»



Integrated in a ViewController

▶ Toolbar like structure



usually contains

▶ Title of the current view

▶ A «pop» command

▶ Possibly some UIBarButtonItem

Install a UINavigationController

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📱 Inside a view controller only!

🔔 Be aware of 

📱 Main steps

1. Create your view controller

```
let vc = UIViewController()
```

2. Create your navigation controller

```
let nvc = UINavigationController(rootViewController: vc)
```

3. Insert the view or the view controller in the navigation controller

▶ In the AppDelegate

```
window!.rootViewController = nvc
```

▶ In a ViewController

```
self.view = nvc.view
```

Push / pop view controllers

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Important

- You stack view controllers only!

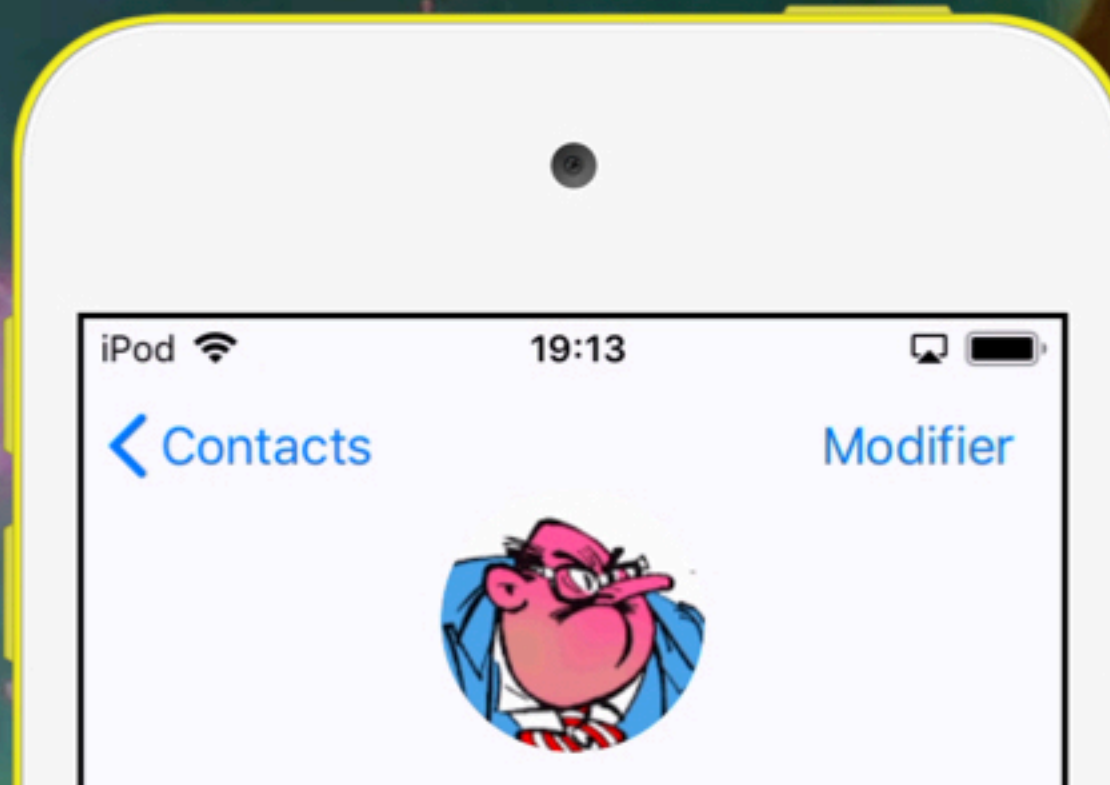
```
func pushViewController(_ viewController: UIViewController,  
                    animated: Bool)
```

- ▶ In Objective-C, be careful if ARC deactivated

Pop a view from the stack

- Usually handled by the Framework
- There also exist a method

```
func popViewController(animated: Bool) -> UIViewController?
```



UINavigationControllerDelegate

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Adapt the behaviour of the navigation controller

🔊 Catch before/after display

```
func navigationController(_ navigationController: UINavigationController,  
willShow viewController: UIViewController,  
animated: Bool)
```

```
func navigationController(_ navigationController: UINavigationController,  
didShow viewController: UIViewController,  
animated: Bool)
```

🔊 Customisation of animations

- ▶ navigationController(_:animationControllerFor:from:to:)
- ▶ navigationController(_:interactionControllerFor:)
- ▶ navigationControllerPreferredInterfaceOrientationForPresentation(_:)
- ▶ navigationControllerSupportedInterfaceOrientations(_:)

UINavigationControllerDelegate

Adapt the behaviour of the navigation controller

Catch before/after display

```
func navigationController(_ navigationController: UINavigationController, willShow viewController: UIViewController, animated: Bool)
```

```
func navigationController(_ navigationController: UINavigationController, didShow viewController: UIViewController, animated: Bool)
```

Customisation of animations

- ▶ navigationController(_:animationContext:from:to:)
- ▶ navigationController(_:interactionContext:from:to:)
- ▶ navigationControllerPreferredInteractionForPresentation(_:)
- ▶ navigationControllerSupportedInterfaceOrientations(_:)




As a conclusion...

Usual coupling

-  UITableViewController & UINavigationController
 - ▶ To navigate between the list and some detailed views

Recommended coupling

-  With any ViewController
 - ▶ Especially in a UITabBar (to be detailed later)
 - ▶ Unless you have a UIToolBar

You must use it too!

