MVC to MVVM

Green @ LangLive

It's for MVVM beginner

- Overview MVC, Apple MVC

- How to Start MVVM

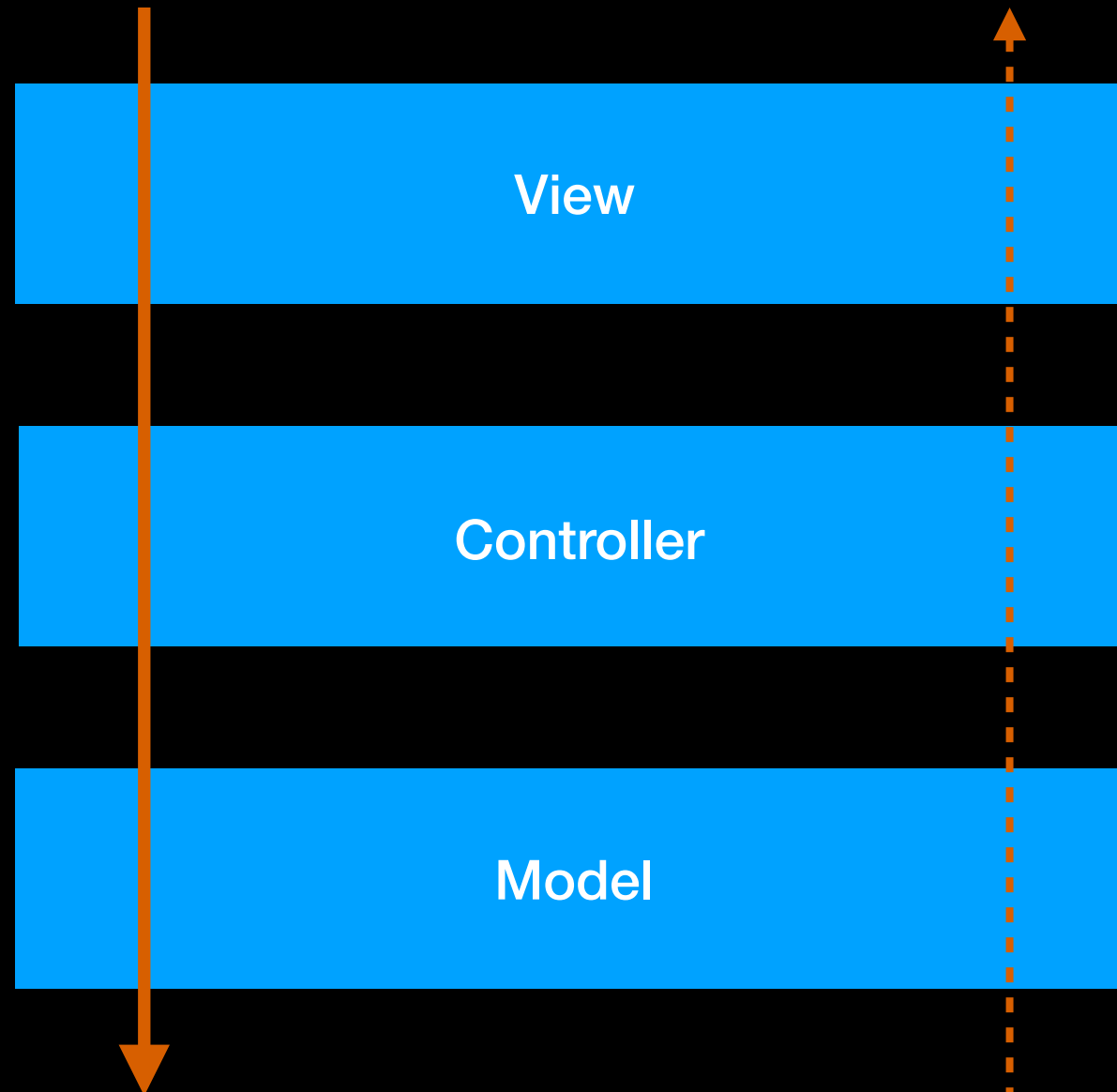- Sample

MVC

View

Controller

Model

MVC

Apple MVC

View | ViewController | Model

Apple MVC

View | ViewController | Model

ViewController is View

Apple MVC

View	ViewController	Model

Duties:

- **Init/Layout Subviews**
- **Navigation**
- **View State**
- **Mutate data**
- **Send API Requests**
- **Handle UIEvents**

… etc

Apple MVC

View	ViewController	Model

Duties:

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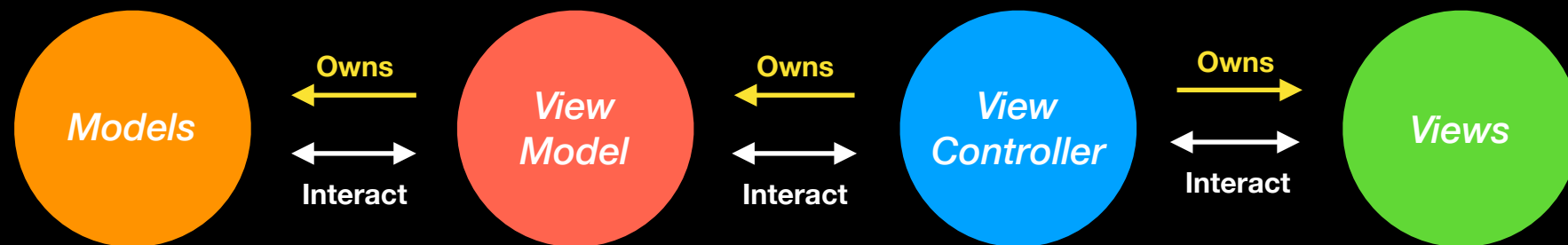- **Handle UIEvents**

… etc

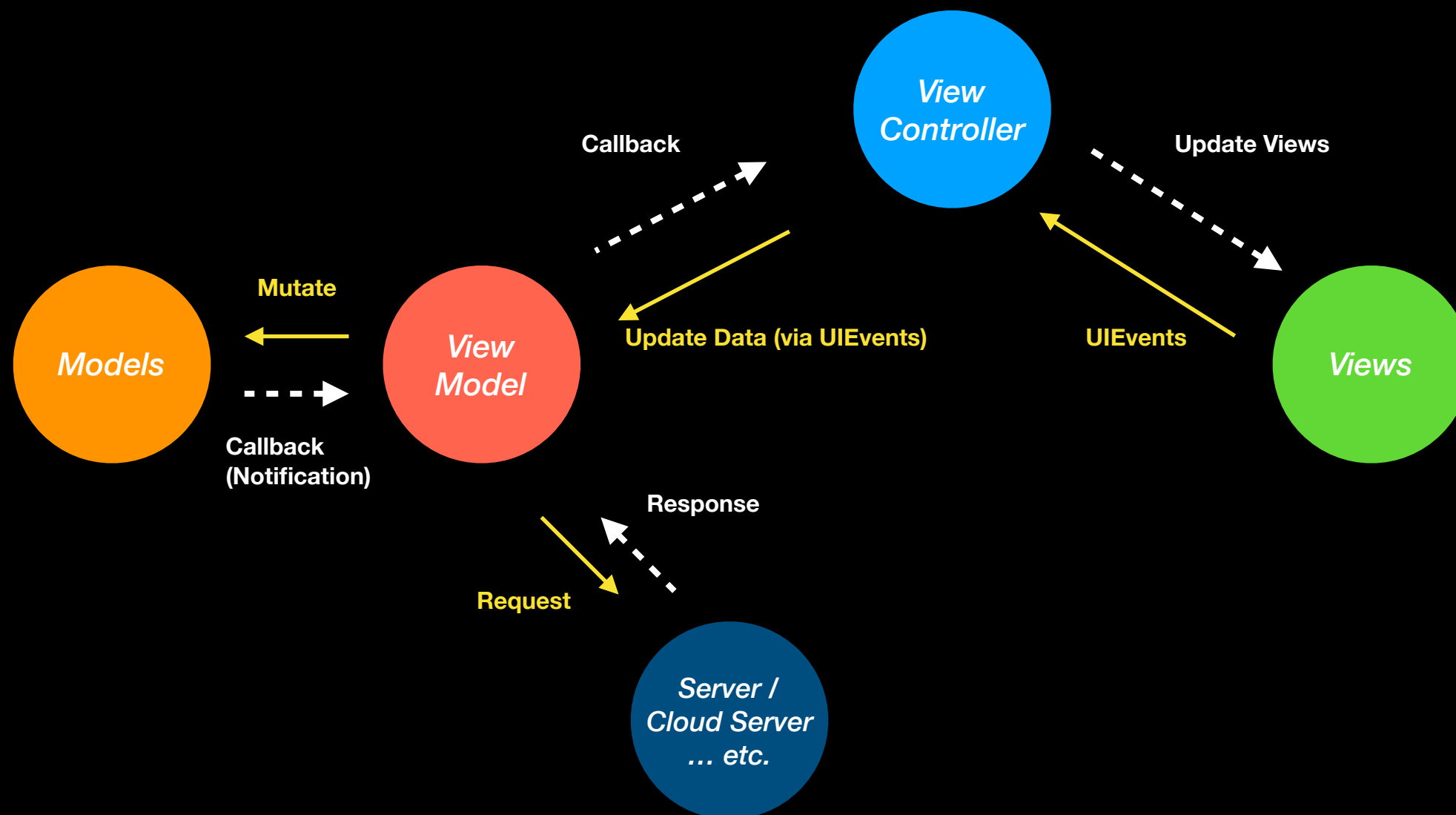**Massive ViewController**

MVVM
Model-View-ViewModel

MVVM

- Reduce the responsibilities of VC

- Reduce the coupling

- Testable

Ownerships

Models ←*Owns* **View Model** ←*Owns* **View Controller** *Owns*→ **Views**

Interact ↔ Interact ↔ Interact ↔

Interactions

MVVM is similar with MVC

Principles

ViewModel (VM) is responsable for

- **The content of view**

- **The handling for behavior of view**

Principles

Move the content *that is non-related to UI* into VM.

- Logic

- Data struct

- API and other data manager.

- Notifications

Principles

- One VM vs One VC

- Sub-VM for subview if necessary

ViewModel

ViewController

| Navigation | Init Views | Handle UIEvent |

| Cooperate other components | API Request | Models/Data Storage |

| Mutate Models/Data | View State | Allocate subviews of views' | Layouts |

View

ViewModel

ViewController

Navigation	Init Views	Handle UIEvent
Cooperate other components	API Request	Models/Data Storage
Mutate Models/Data	View State	Allocate subviews of views'	Layouts

View

ViewModel

ViewController

Navigation	Init Views

Cooperate other components	API Request	Models/Data Storage

Mutate Models/Data	View State

View

Allocate subviews of views'	Layouts	Handle UIEvent

ViewModel

ViewController

Navigation

Init Views

Cooperate other components

API Request

Models/Data Storage

Mutate Models/Data

View State

View

Allocate subviews of views'

Layouts

Handle UIEvent

ViewModel

| Cooperate other components | API Request | Models/Data Storage |

| Mutate Models/Data | View State |

ViewController

| Navigation | Init Views |

View

| Allocate subviews of views' | Layouts | Handle UIEvent |

ViewModel

Cooperate other components	API Request	Models/Data Storage

Mutate Models/Data	View State

ViewController

Navigation	Init Views	Init VM	View Delegate

VM Delegate

View

Allocate subviews of views'	Layouts	Handle UIEvent

ViewModel

- Cooperate other components
- API Request
- Models/Data Storage
- Mutate Models/Data
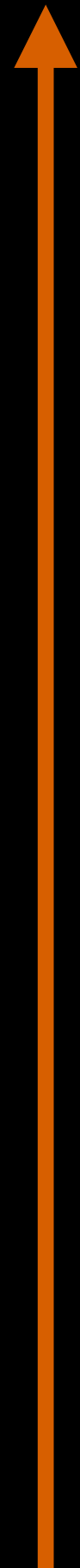- View State

ViewController

- Navigation
- Init Views

View

- Allocate subviews of views'
- Layouts
- Handle UIEvent

ViewModel

Cooperate other components

API Request

Models/Data Storage

Interaction

Mutate Models/Data

View State

ViewController

Navigation

Init Views

View

Allocate subviews of views'

Layouts

Handle UIEvent

ViewModel

Interaction

Cooperate other components

API Request

Models/Data Storage
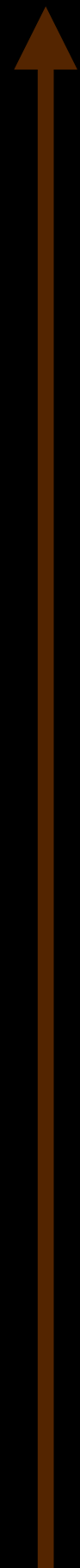
Mutate Models/Data

View State

ViewController

Naviga**Update View State**ws

View

Allocate subviews of views'

Layouts

Handle UIEvent

ViewModel

Cooperate other components

API Request

Models/Data Storage

Interaction

Mutate Models/Data

View State

ViewController

Async Callback

Navigate **Update View State** ws

View

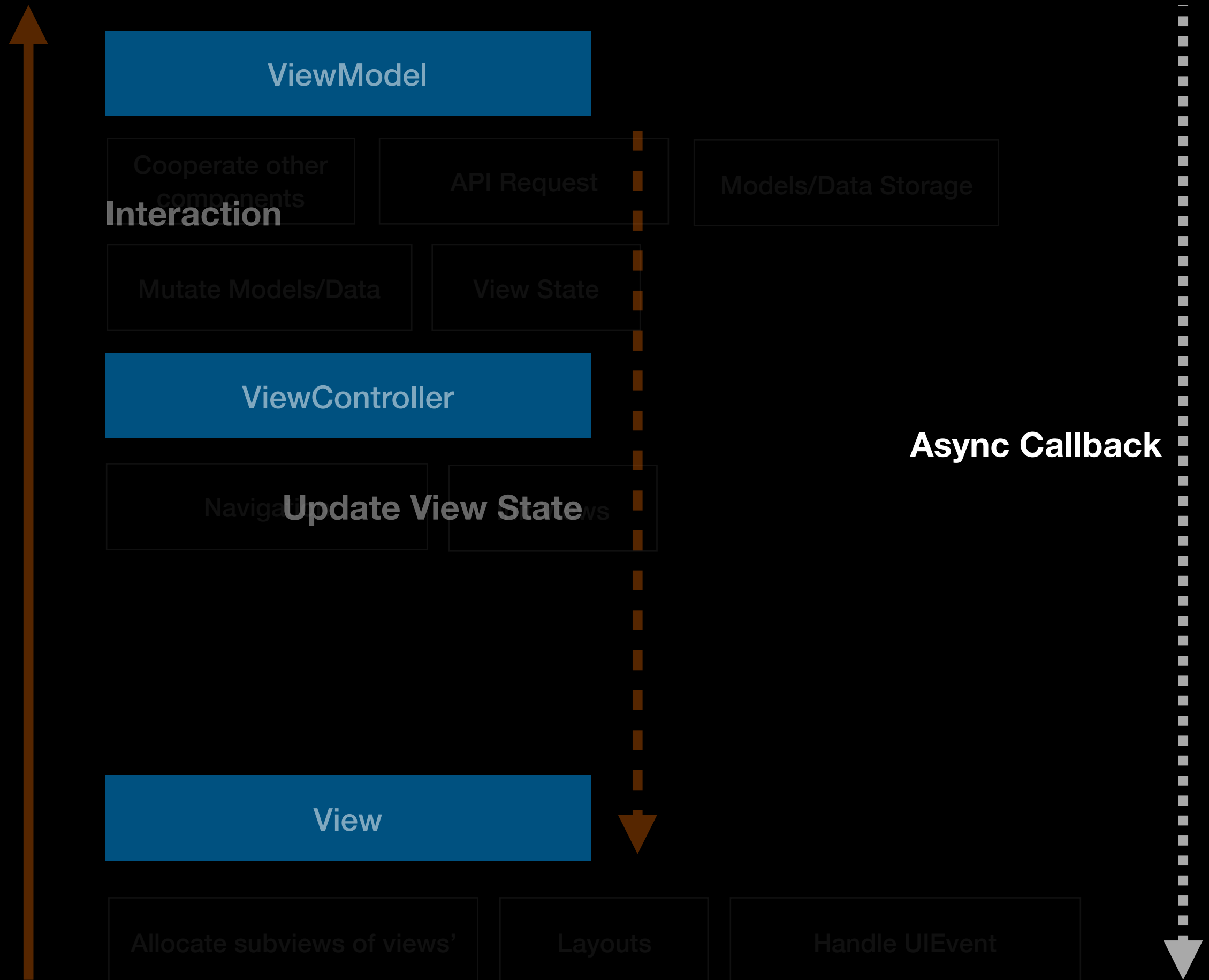Allocate subviews of views'

Layouts

Handle UIEvent

Sample

Q & A

Next

- TDD / ATDD

- MVVM-C