THE COMPOSABLE ARCHITECTURE
A BLUEPRINT FOR BUILDING BETTER iOS APPS

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About Me

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🙏 Acknowledgments

📝 Agenda

- TCA: The what
- TCA main components
- TCA Pros & Cons
- Practical example
- Conclusion
- Q&A

📖 TCA: The What

- TCA is a library for building iOS apps that emphasises a functional and reactive programming style.
- TCA was inspired by Elm & Redux (a popular state management library for web apps.)
- TCA was created by Brandon Williams & Stephen Celis, who publish weekly FRP content at pointfree.co

🧩 TCA Main Components

- The State
- The Actions
- The Reducers

🧩 TCA Main Components

The STATE

It is a value type representing the current state of your app's UI and business logic.

🧩 TCA Main Components

The ACTIONS

Actions are a way to represent user input or other events that trigger updates to state.

🧩 TCA Main Components

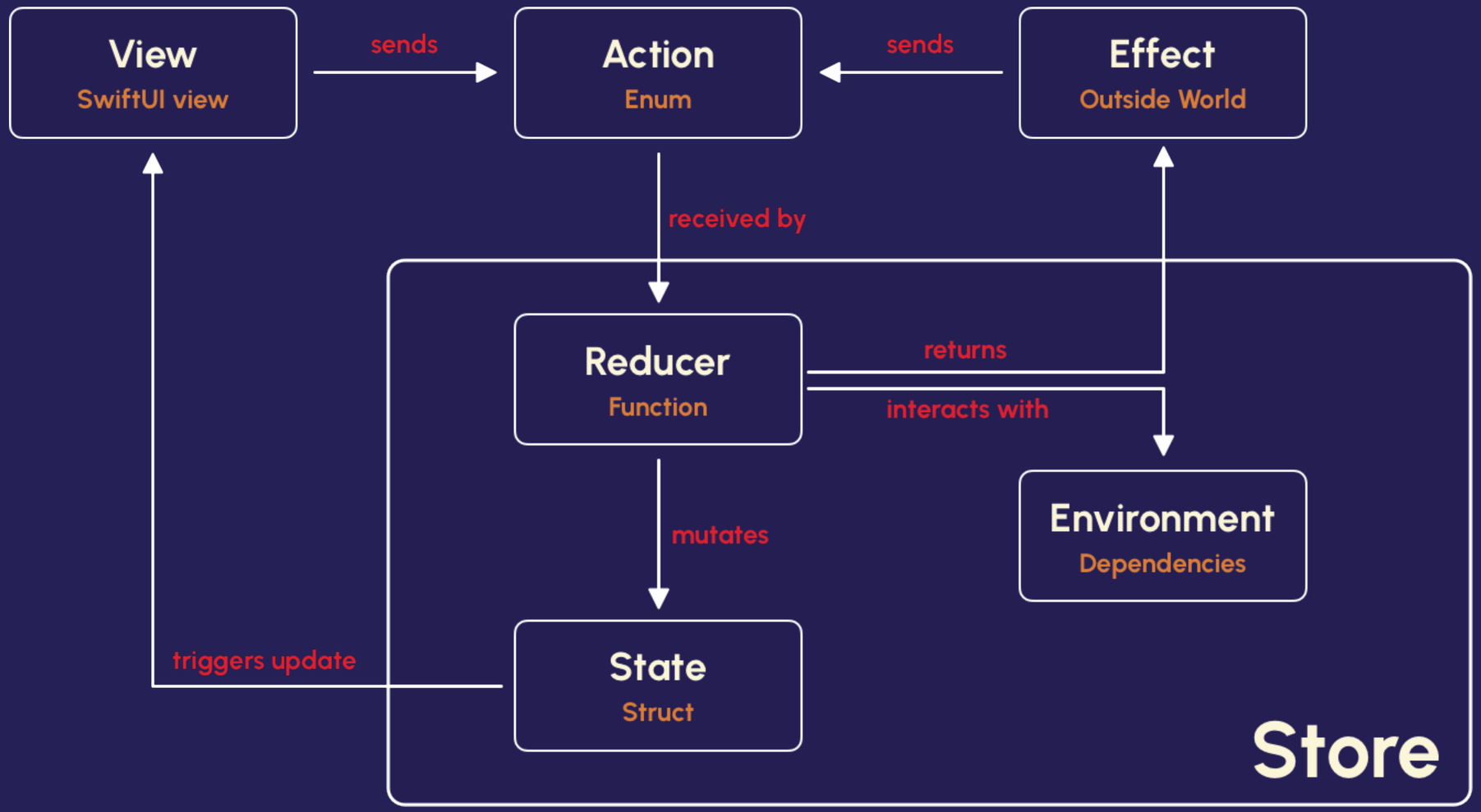
The REDUCERS

Reducers are pure functions that take in an action and the current state of the app, and return a new state.

🛠️ TCA Tools & Utilities

- Effects
- ViewStore
- Dependencies management
- Debugging tools

TCA Main Components: The Big Picture



Credits: Pedro Rojas from Swift & Tips

🦾 TCA Pros

- Predictable state management
- Modular and composable architecture
- Testability
- Expressiveness
- Debugging

😩 TCA Cons

- Steep learning curve
- Some boilerplate code to set up
- Overkill for simple apps

👨‍💻 Live-coding

https://github.com/Bionik6/appdevcon-tca

✅ What we've learned today

- What is TCA and the problems it solves
- The main components of the library
- How to use it and compose views
- How to execute side-effects
- Its main dependency management tool

🤔 Should you use TCA?

It depends 🤷‍♂️

📚 Ressources

Pointree: pointfree.co

TCA Github: github.com/pointfreeco/swift-composable-architecture

Awesome TCA: https://github.com/antranapp/awesome-tca

📮 Contacts

Follow me on twitter.com/bionik6

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🙏 Thank you

🎤 Questions