

# Android MVI Architecture #1

Thuy

Growth Session #13 - March 15-16 2018

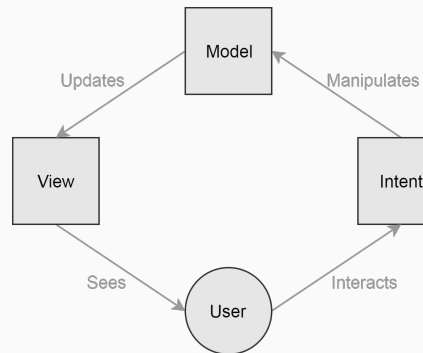
- Explore Model View Intent architecture Android
- Implement this architecture to demo application

# Achievements and progress

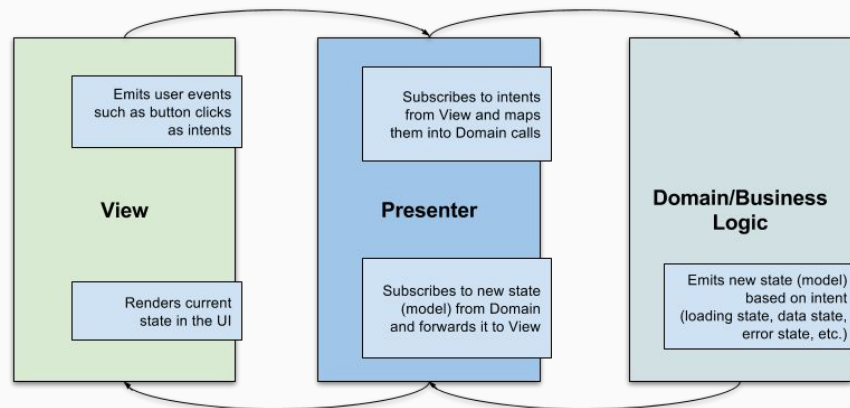
- Completed Tasks
  - Understanding MVI
  - Implement MVI on home screen including testing
  - Setup Firebase
  - Chat screen using firebase realtime chat, MVI, testing not included.
- Work in progress
  - User Registration
  - Write/Read requests list from Firebase
  - App UI
  - Testing chat screen

# Model View Intent Architecture for Android

- Created by André Staltz for the Javascript framework [cycle.js](https://github.com/staltz/cycle.js)
- Suitable for Android or any other UI-based application
- What is MVI
  - Intent (to listen to the user)
  - Model (to process information)
  - View (to output back to the user).



Model-View-Intent at a Glance



# Compare with others architecture

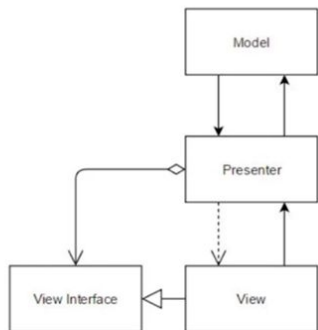
## MVP

**Characteristic element:**

View is hidden behind interface.

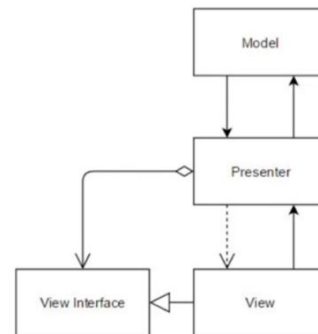
**Idea:**

Make Presenter independent from View



- + High testability of Presenter
- + Higher Presenter reusability
- + Presenters can be used in common modules
- Need to create and maintain interface for views
- Additional boilerplate.

## MVVM



## MVI

Button

Producer

Observable

TextView

Receiver

Consumer

TextEdit

Producer & Receiver

Subject

MVVM and MVI remove  
some of the boilerplate code  
and improve scalability  
**BUT** makes your app  
dependent on the  
RxJava Library

# Demo Application

- A small social network called "Having here" (demo with two users)
- Idea: I need something, I post them (included title, description, price), others can see it, if they can provide what I need, they can submit and starting a chat conversation to get a deal.
- Technology
  - Firebase: storage and real-time firebase chat
  - MVI architecture

## References

- MVI Architecture Android by **Sebastian Harner**
- MVI series blog by Hannes Dorfmann (highly recommend)
- Circle.js MVI
- Firebase chat realtime
- Compare with others architecture by Realm academy



# Thanks!

Contact Nimbl3

[hello@nimbl3.com](mailto:hello@nimbl3.com)

399 Sukhumvit Road, Interchange 21  
Klongtoey nua, Wattana  
Bangkok 10110

20th Floor, Central Tower  
28 Queen's Road  
Central, Hong Kong

[nimbl3.com](http://nimbl3.com)

