

## 3.2. Architectural patterns

NGUYEN Thi Thu Trang

1

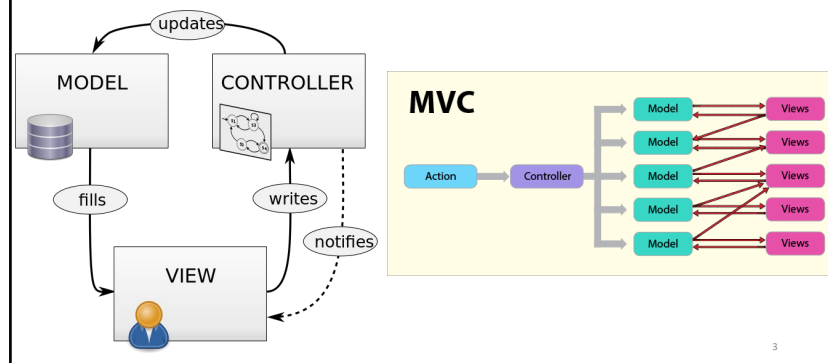
### Architectural pattern

- General, reusable solution to a commonly occurring problem in software architecture within a given context.
  - Performance
  - High availability
- Some architectural patterns have been implemented within software frameworks
  - 3-layer/3-tier pattern: DotNetNuke
  - MVC pattern: Laravel, ASP.NET MVC
  - Microservices: Spring Boot, vert.x

2

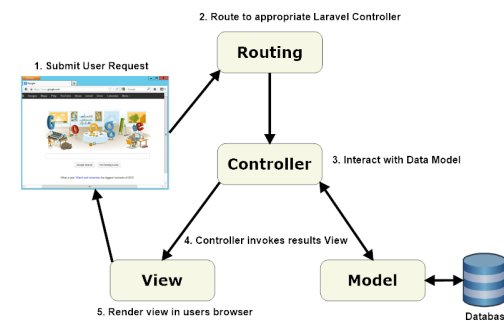
### Classic MVC architecture (active)

Problems?



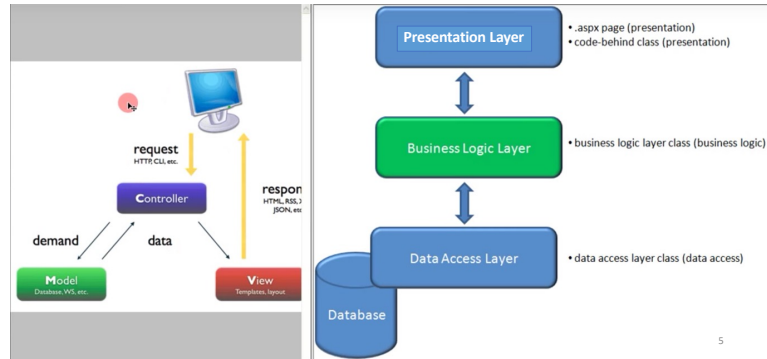
3

### Passive MVC architecture

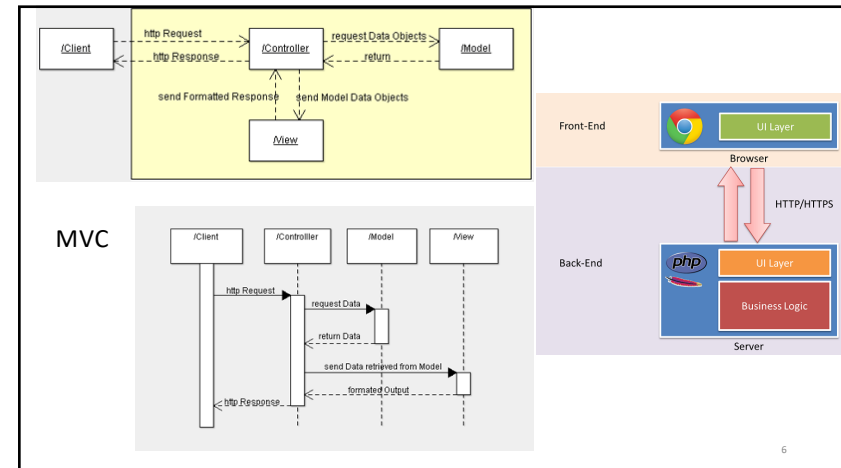


4

## MVC vs 3-tier Architecture

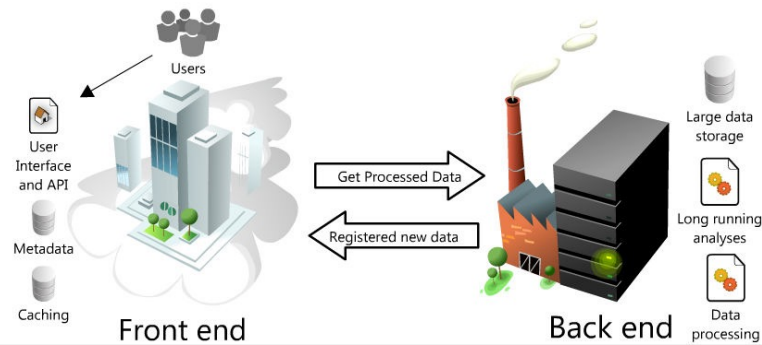


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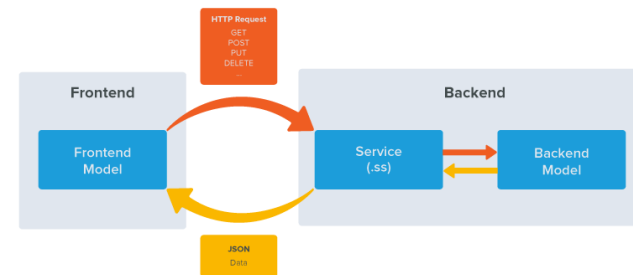
## Front-end and Back-end



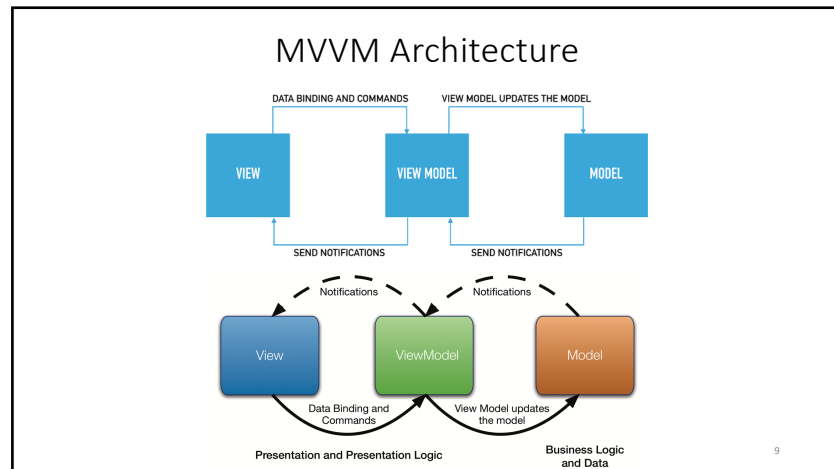
7

## Front end and Back end

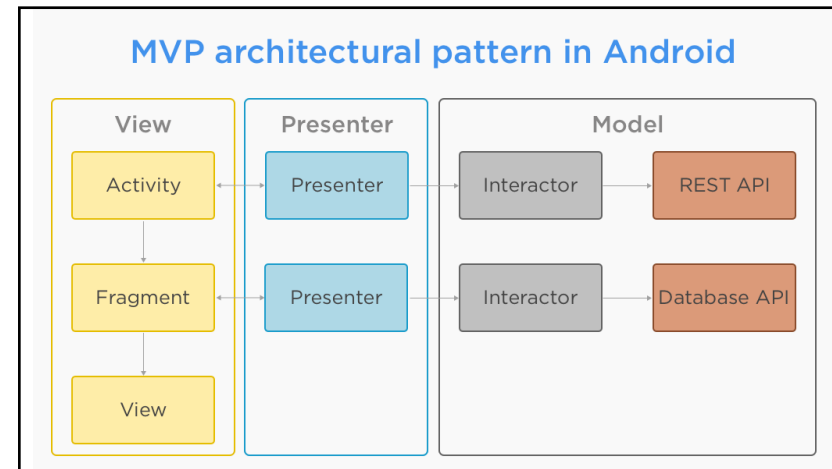
- May have different architectural patterns



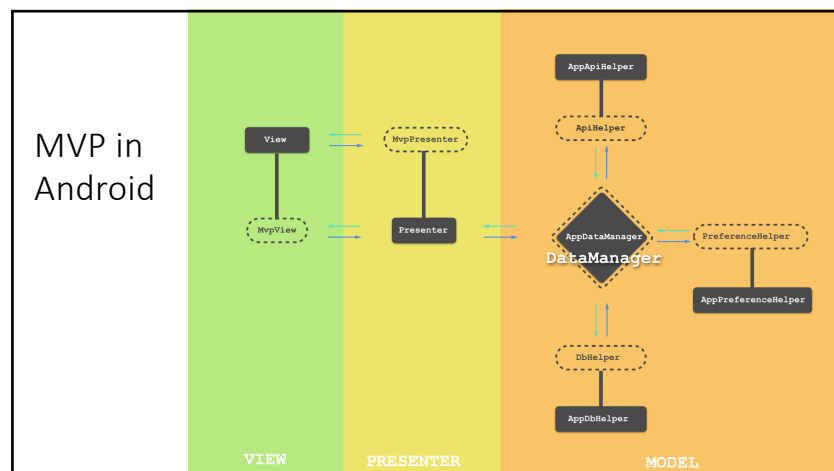
8



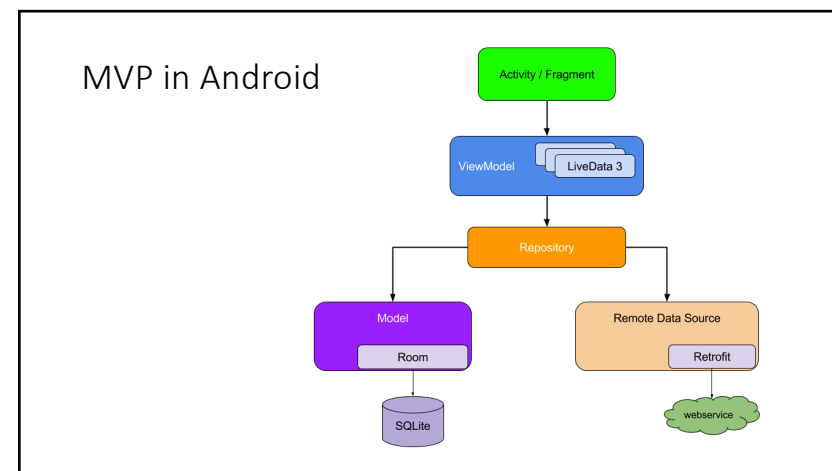
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10

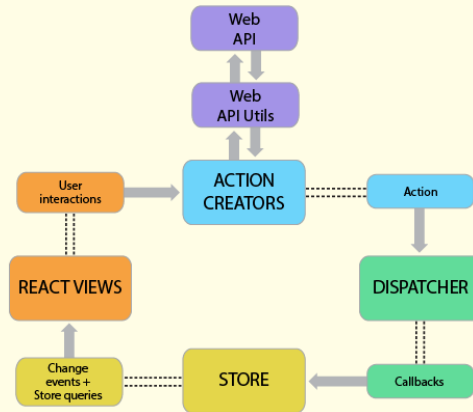


11



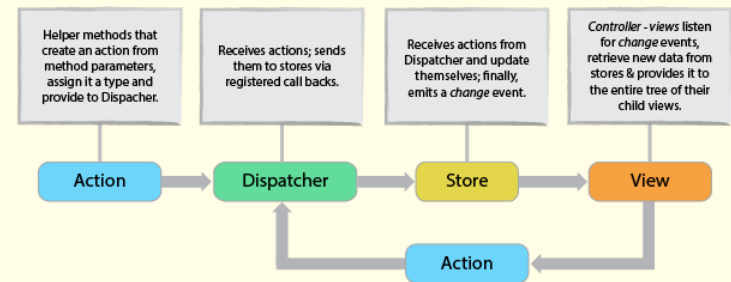
12

### Flux architecture (React)



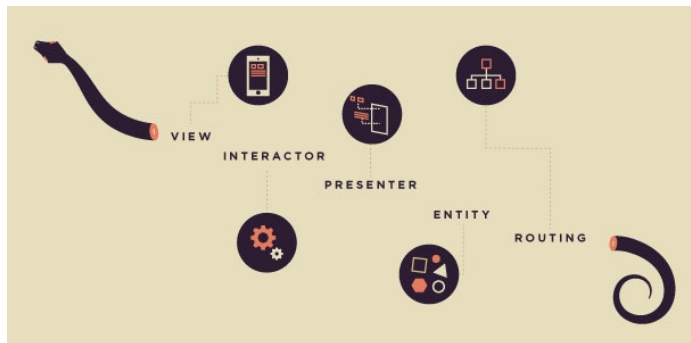
13

### Flux architecture (React)



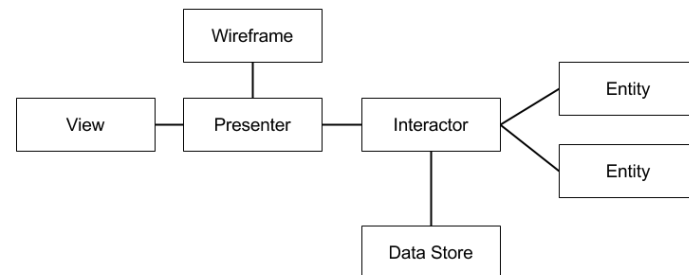
14

### VIPER architecture (iOS)



15

### VIPER architecture (iOS)



16