



# Team Promotion Alarm Clock

Simple Habits

A photograph of a wooden desk setup. On the left, a white ceramic mug filled with dark coffee sits on a matching saucer. Next to it is an open notebook with a black pen resting on its pages. A black smartphone lies diagonally across the desk. In the background, a portion of a yellow calendar is visible.

# Agenda

- Approach
- Project Management
- Technical
- Architecture
- Testing
- Demo

The diagram features a large Venn diagram set against a background of a sunset over water. The left circle, colored orange, contains four roles: Designer, Business Process Analyst, Process Engineer, and Requirement Specifier. The right circle, colored yellow, contains four roles: System Analyst, Project Manager, Configuration Manager, and Deployment Manager. The overlapping area of the two circles is labeled "Software Architects".

- Designer
- Business Process Analyst
- Process Engineer
- Requirement Specifier

- System Analyst
- Project Manager
- Configuration Manager
- Deployment Manager

**Software Architects**

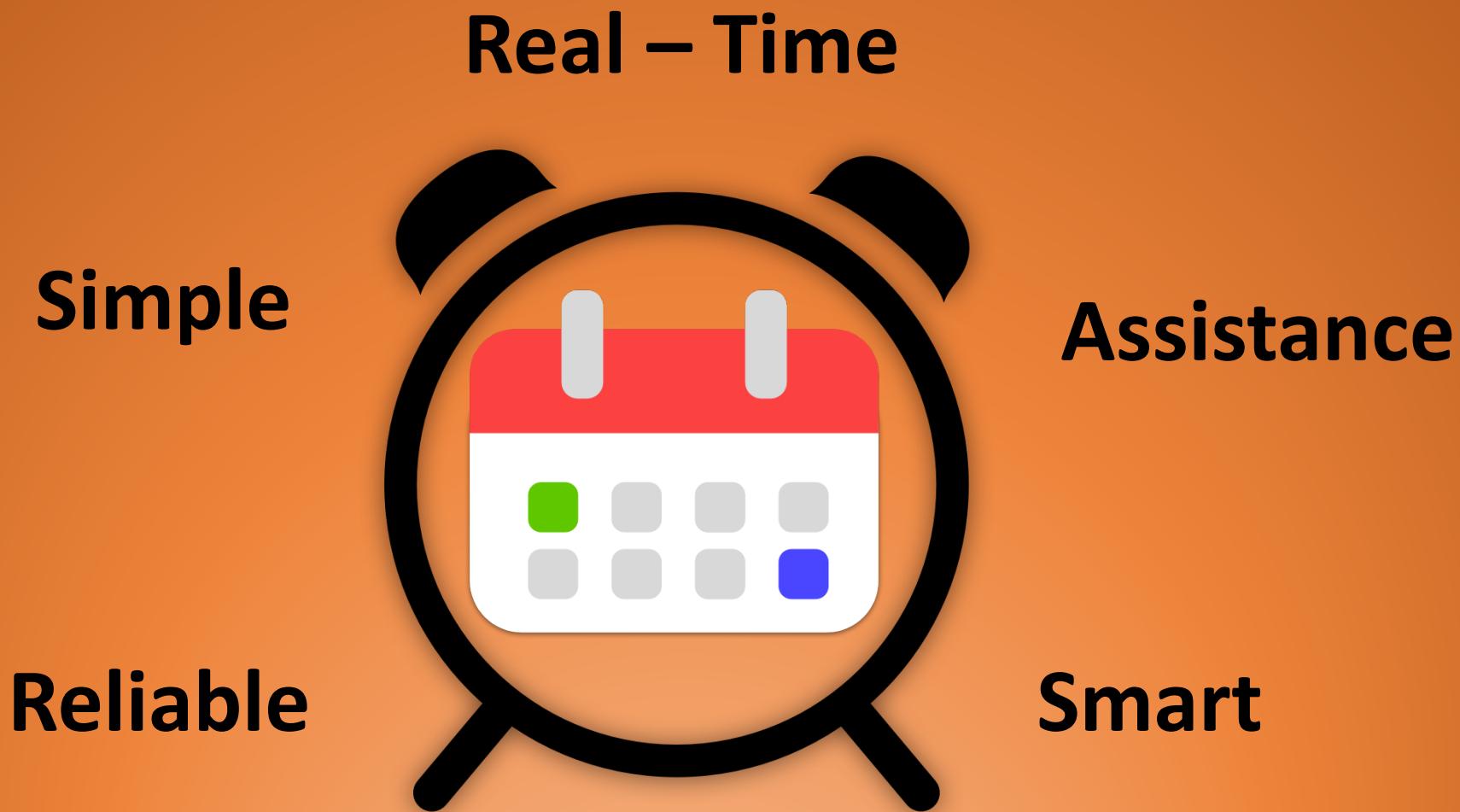


# Team

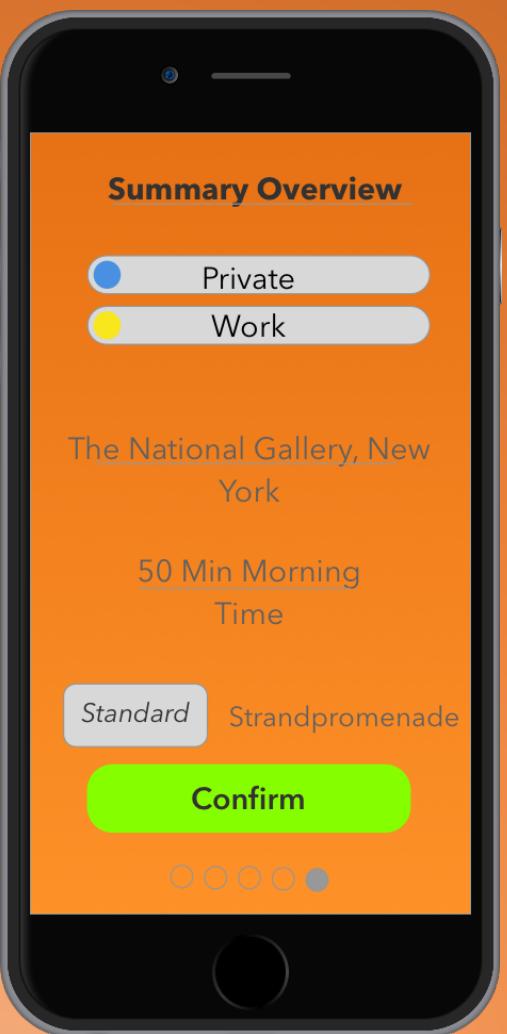
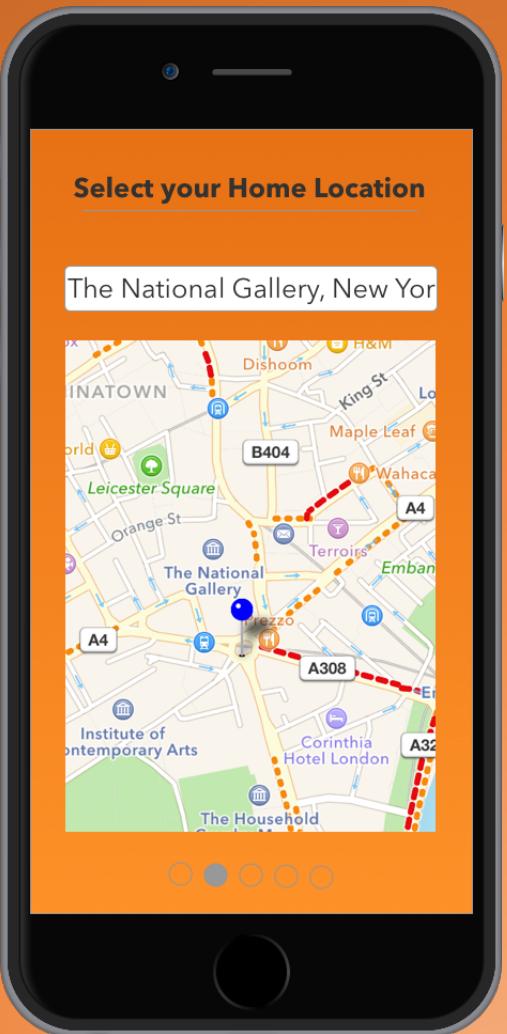
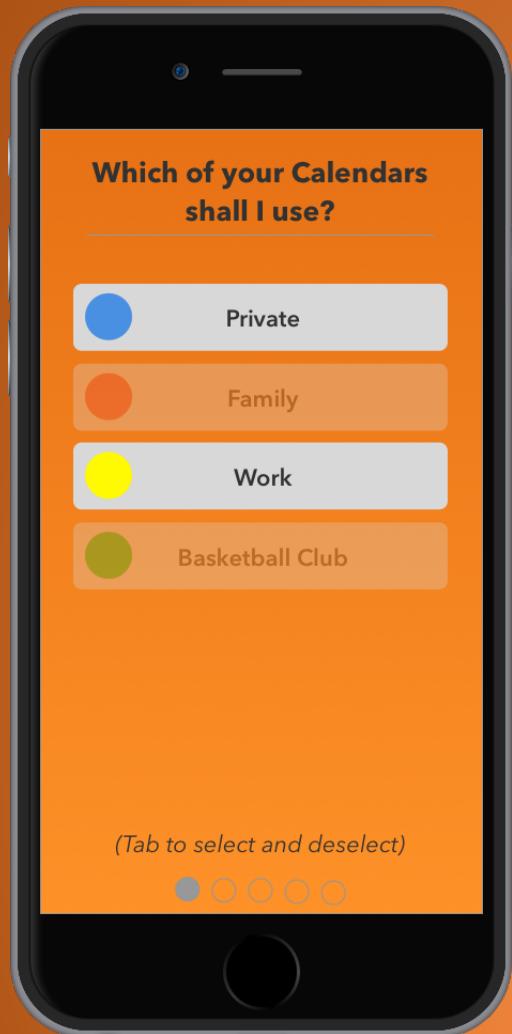
# Approach



# Approach - Vision



# Approach – Mock Ups

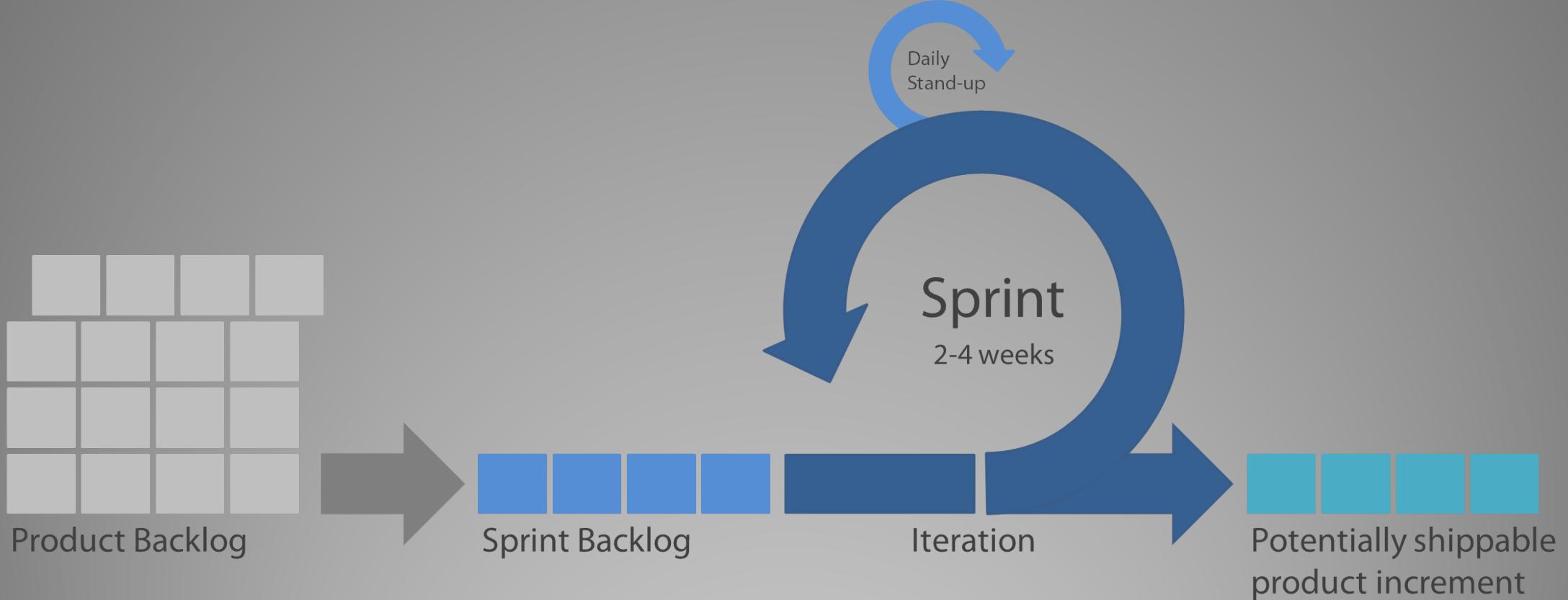


A photograph showing two people's hands and forearms over a table covered with architectural blueprints. One person, wearing a blue shirt and a striped tie, points at a specific part of a grid-based drawing with their index finger. Another person's hand is visible, holding a pen. A calculator and a smartphone are also on the table.

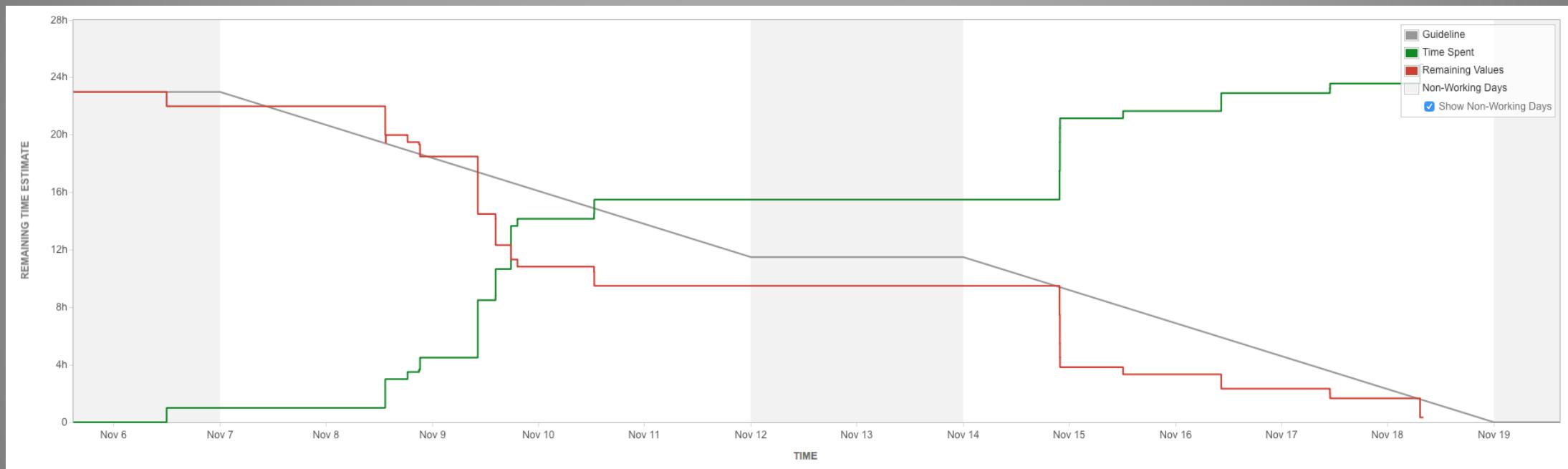
# Project Management

# Project Management – Methodology

Why not Waterfall?

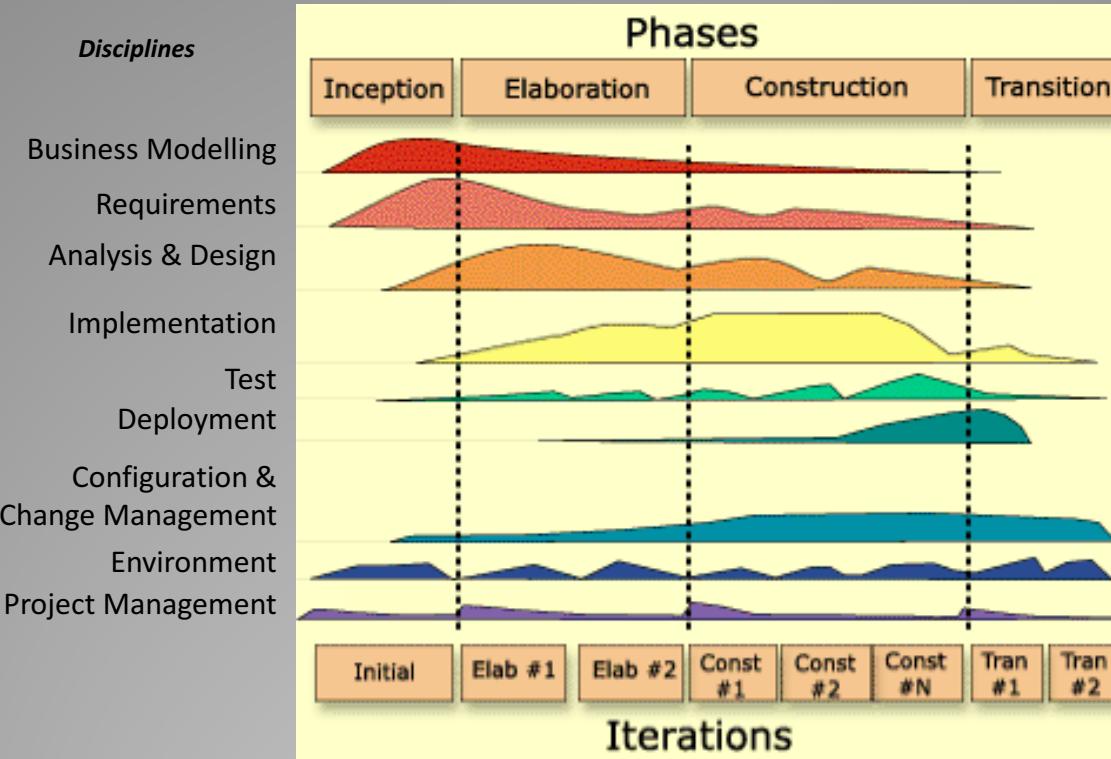


# Project Management – Scrum Tool

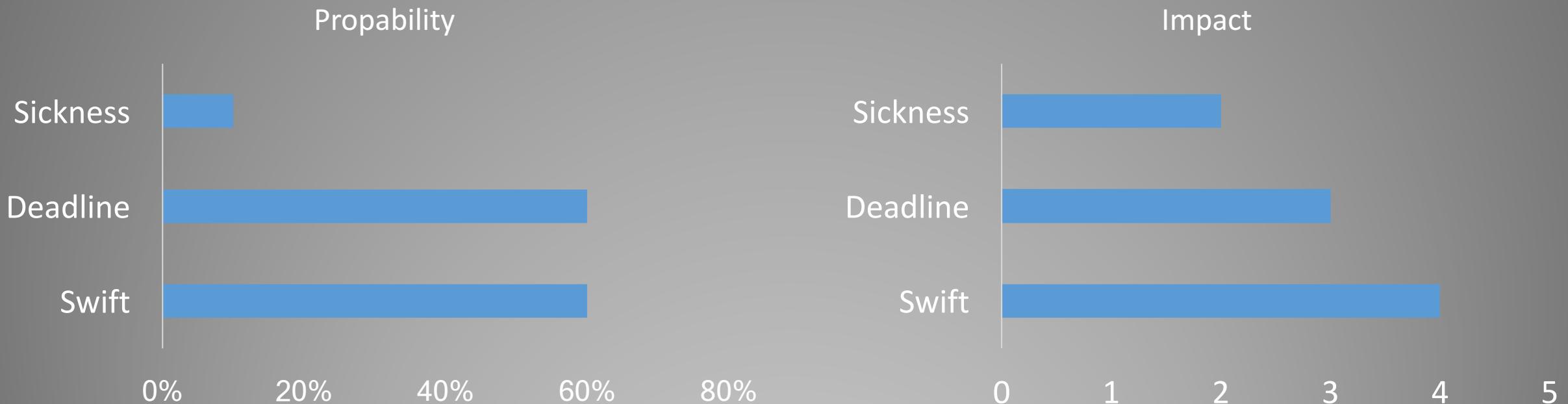


# Project Management – Rational Unified Process

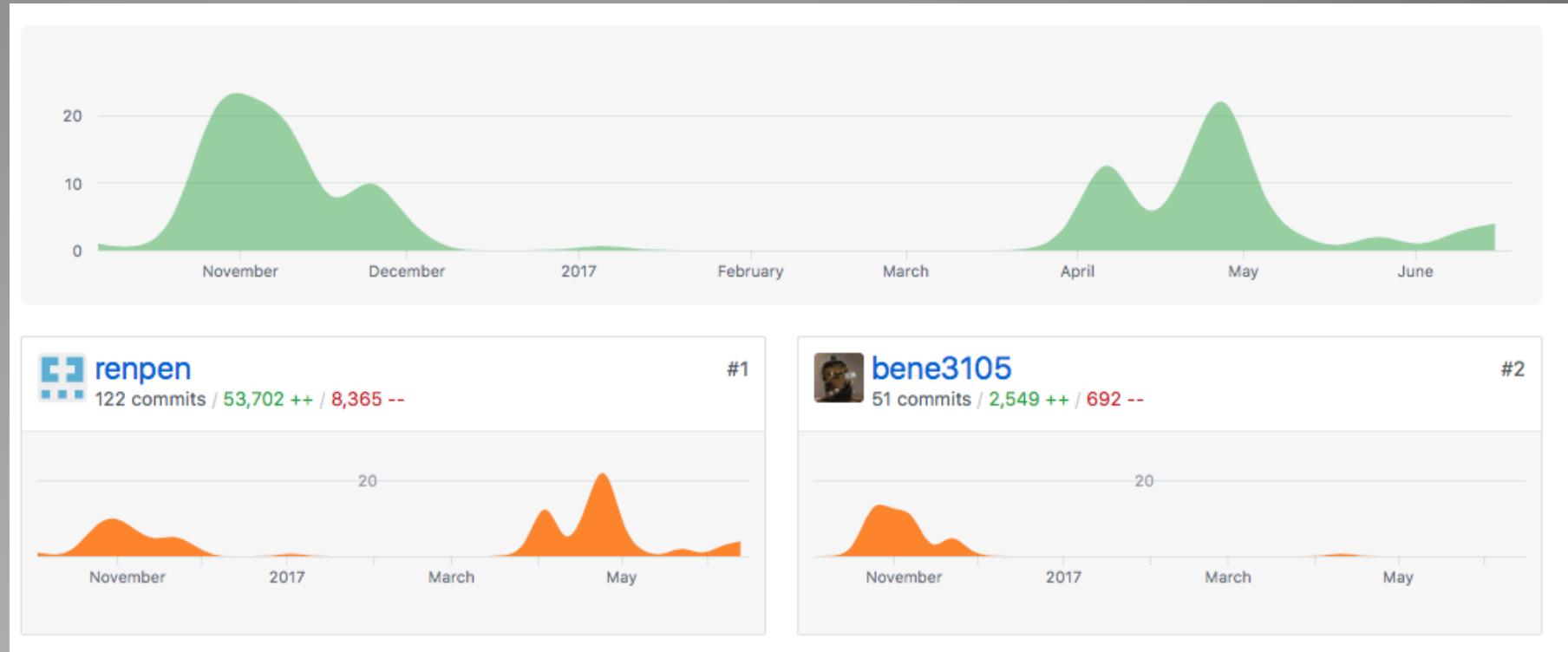
## Long Term Planning



# Project Management – Risk Management



# Project Management – Version Control

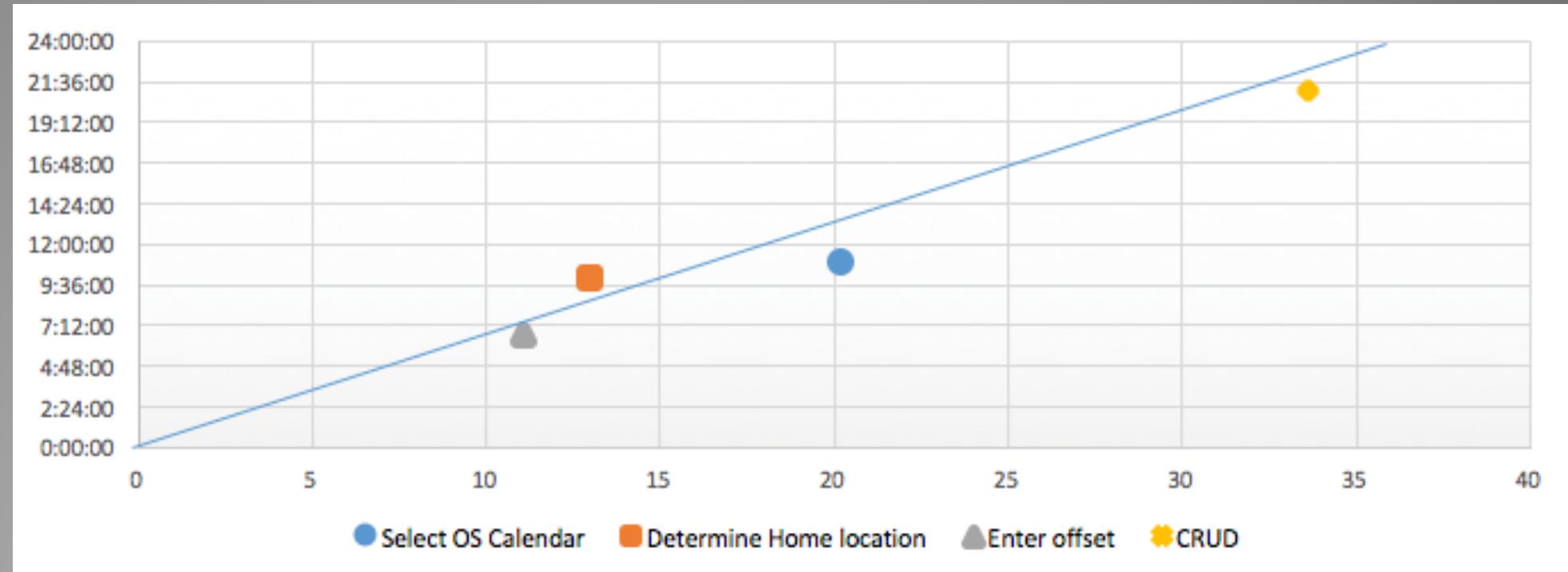


# Project Management – Overall Use Case Diagram



# Project Management – Time Estimation

Based on Function Points Calculation



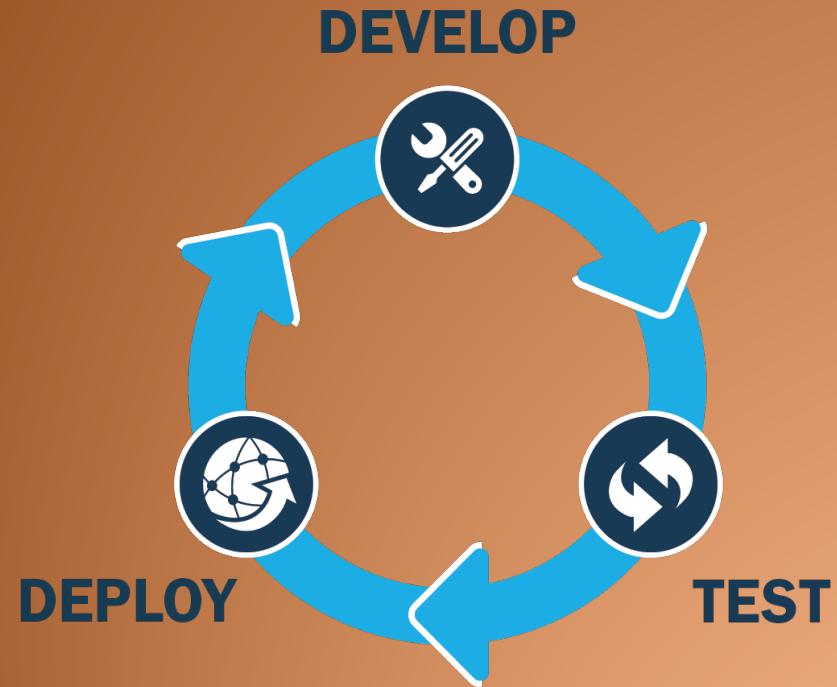
# Technical Environment

# Technical Environment – iOS

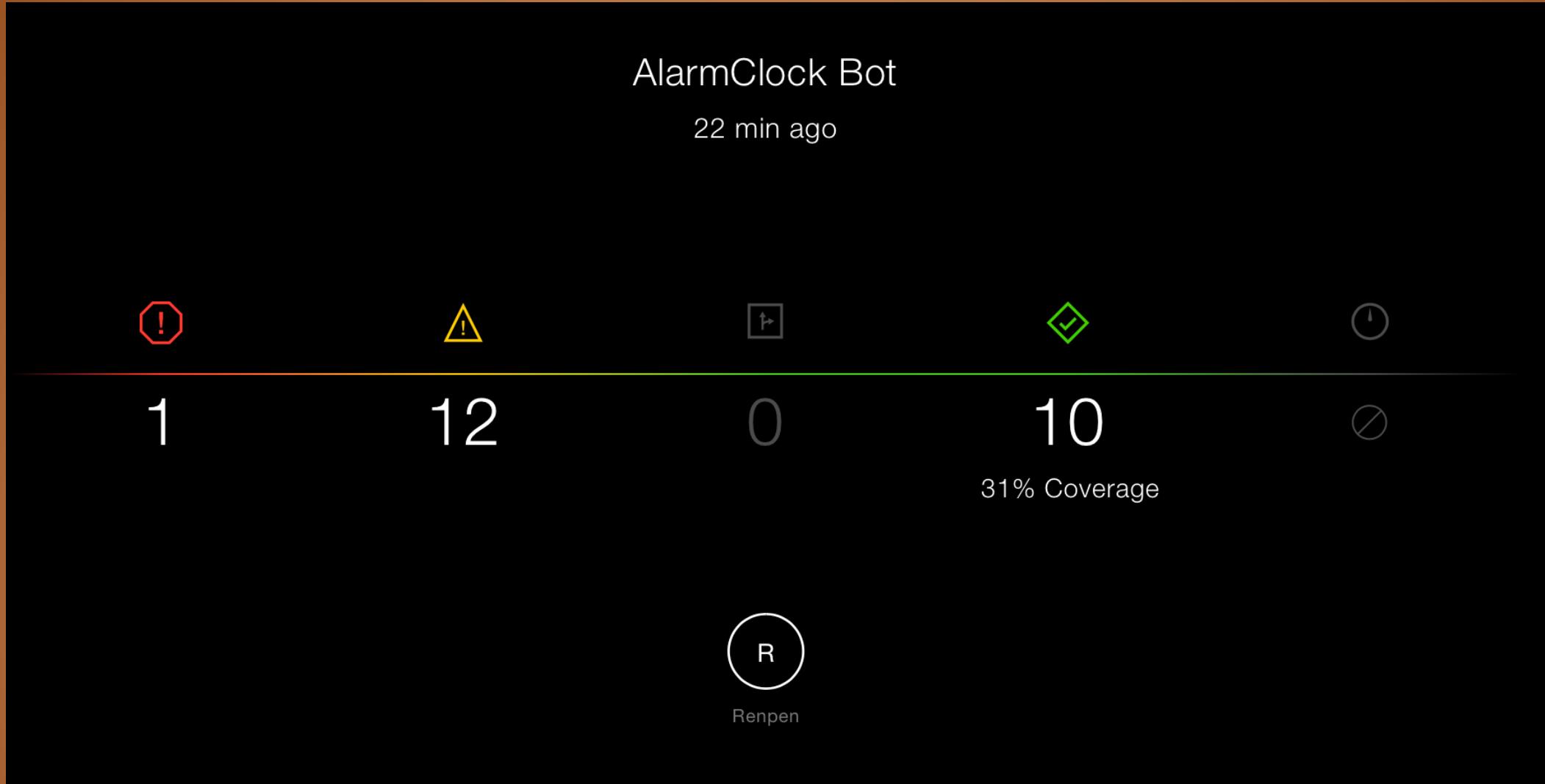


# Swift

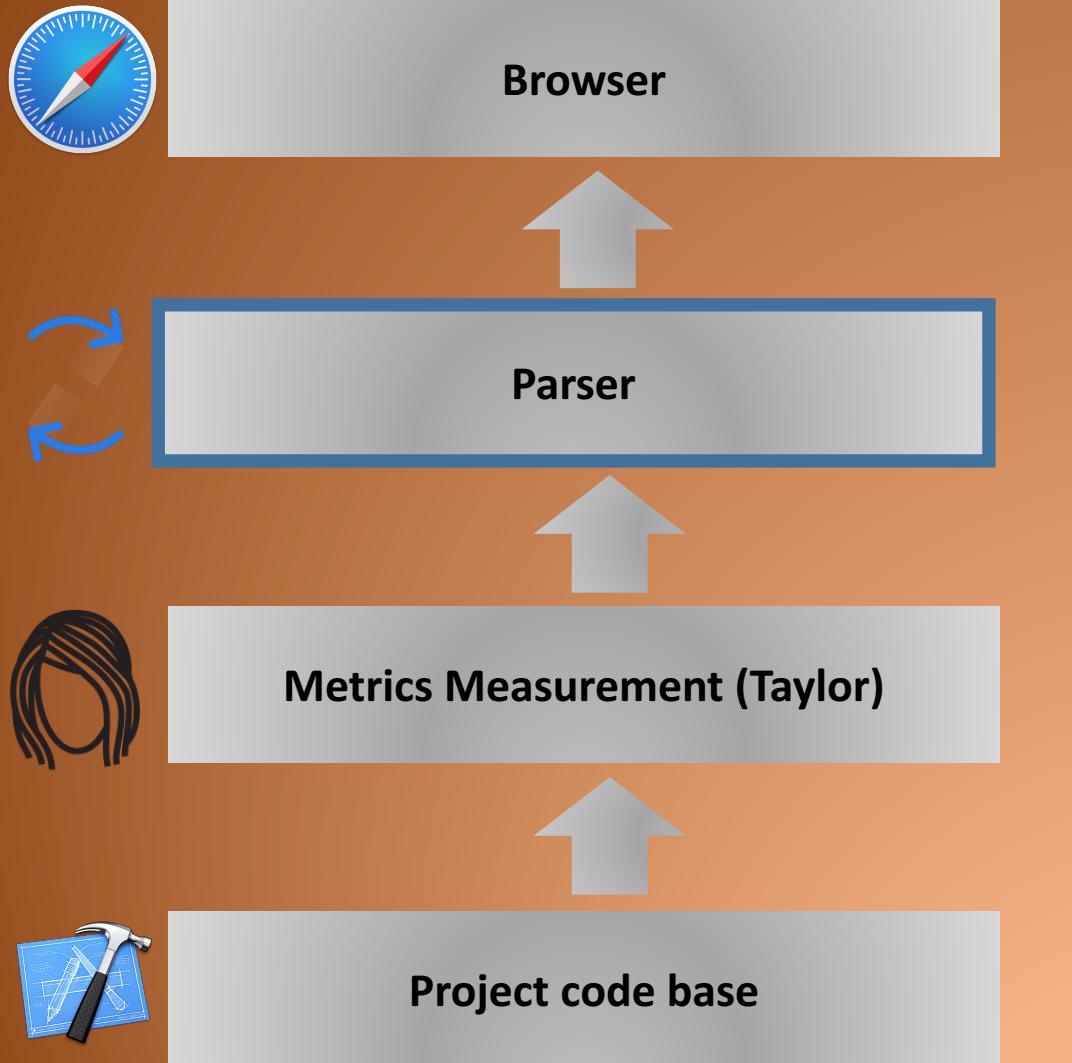
# Technical Environment – Continuous Integration



# Technical Environment – CI Insights



# Technical Environment – Metrics

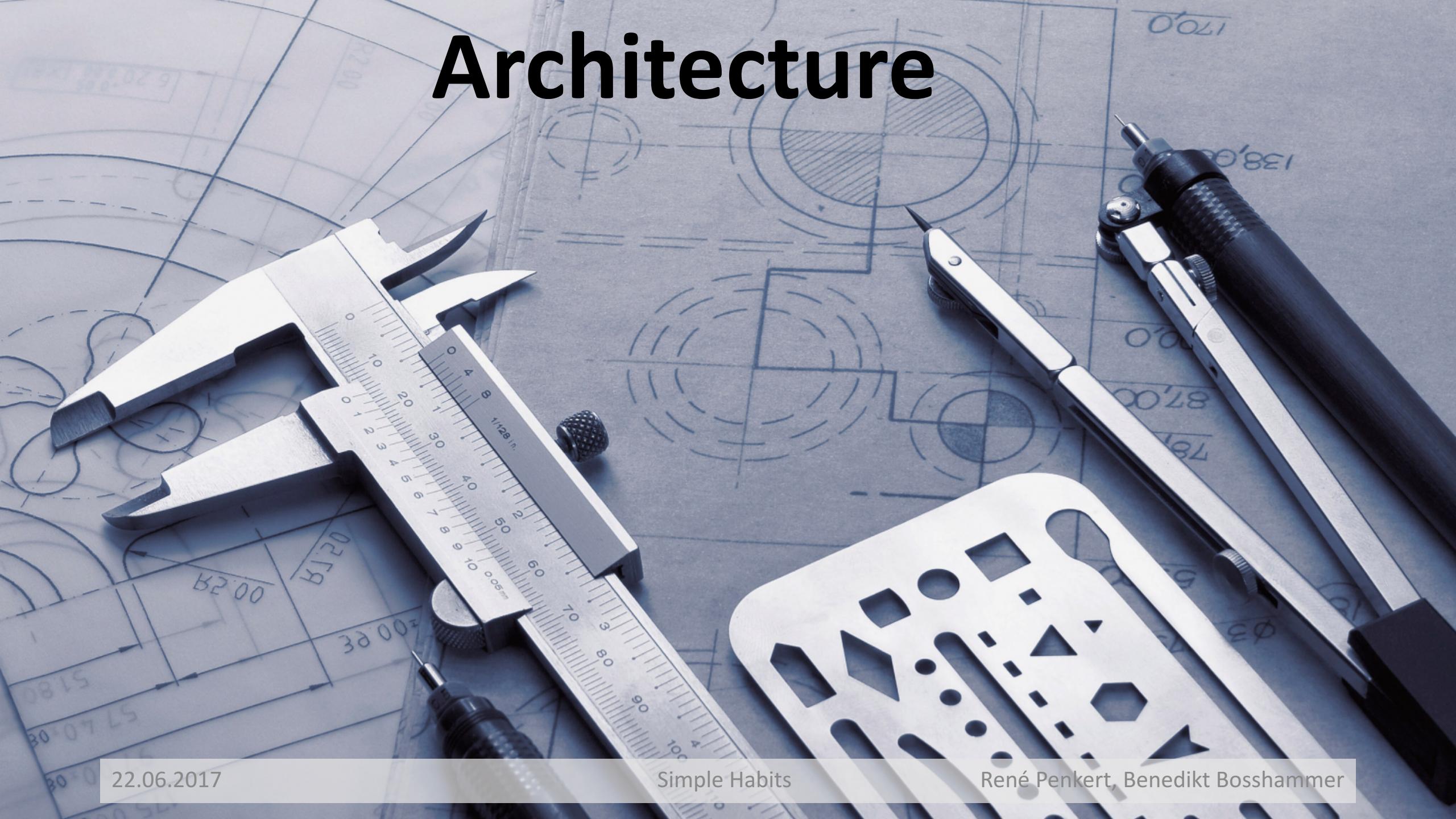


This is your result

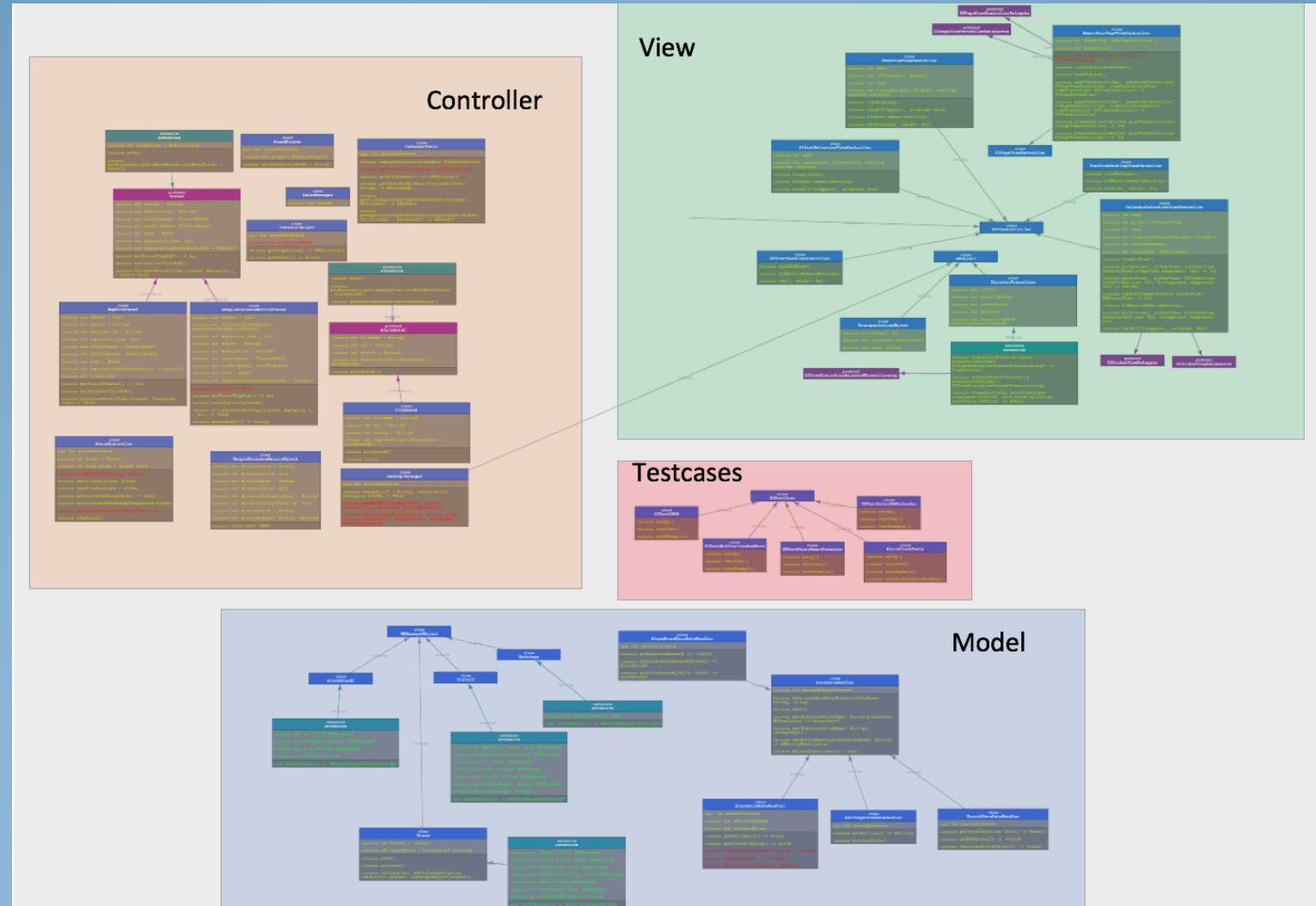
33 Violations!

| Rule                     | Violations |
|--------------------------|------------|
| Excessive Class Length   | 0          |
| Excessive Method Length  | 7          |
| Too Many Methods         | 3          |
| Cyclomatic Complexity    | 19         |
| Nested Block Depth       | 2          |
| N-Path Complexity        | 1          |
| Excessive Parameter List | 1          |

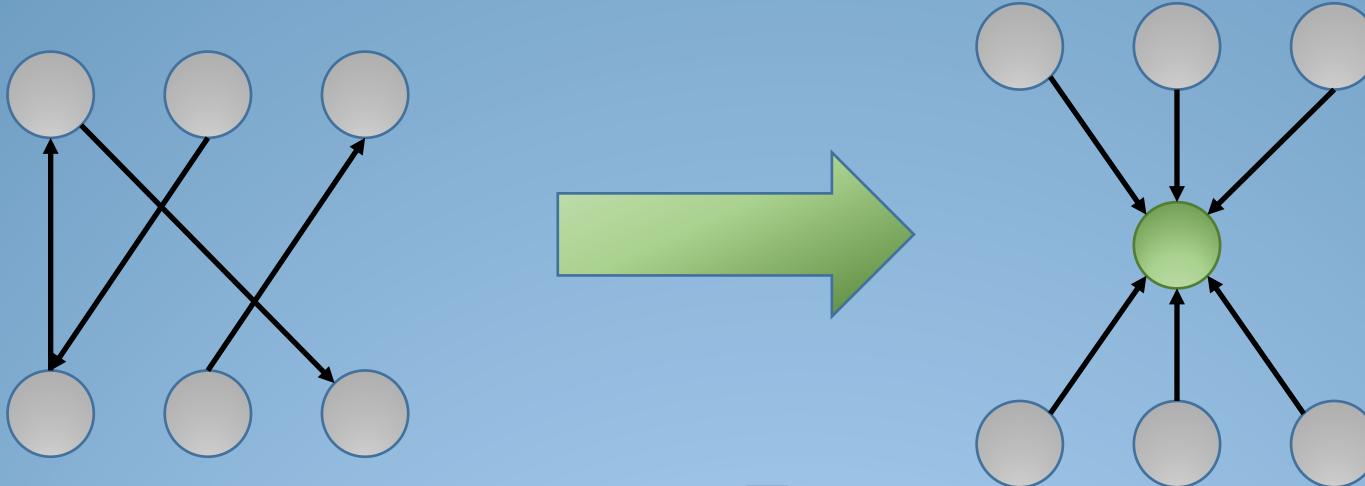
# Architecture



# Architecture – Class Diagram



# Architecture – Patterns

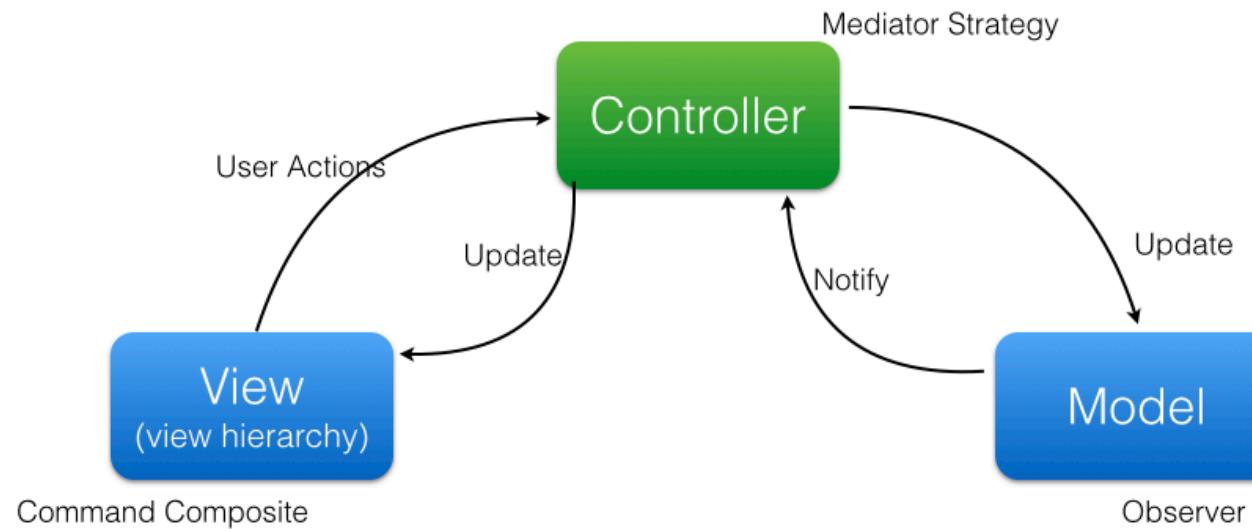


Decorator  
Visitor  
Factory  
Singleton  
Observer  
State  
Iterator

# Architecture – MVC Pattern

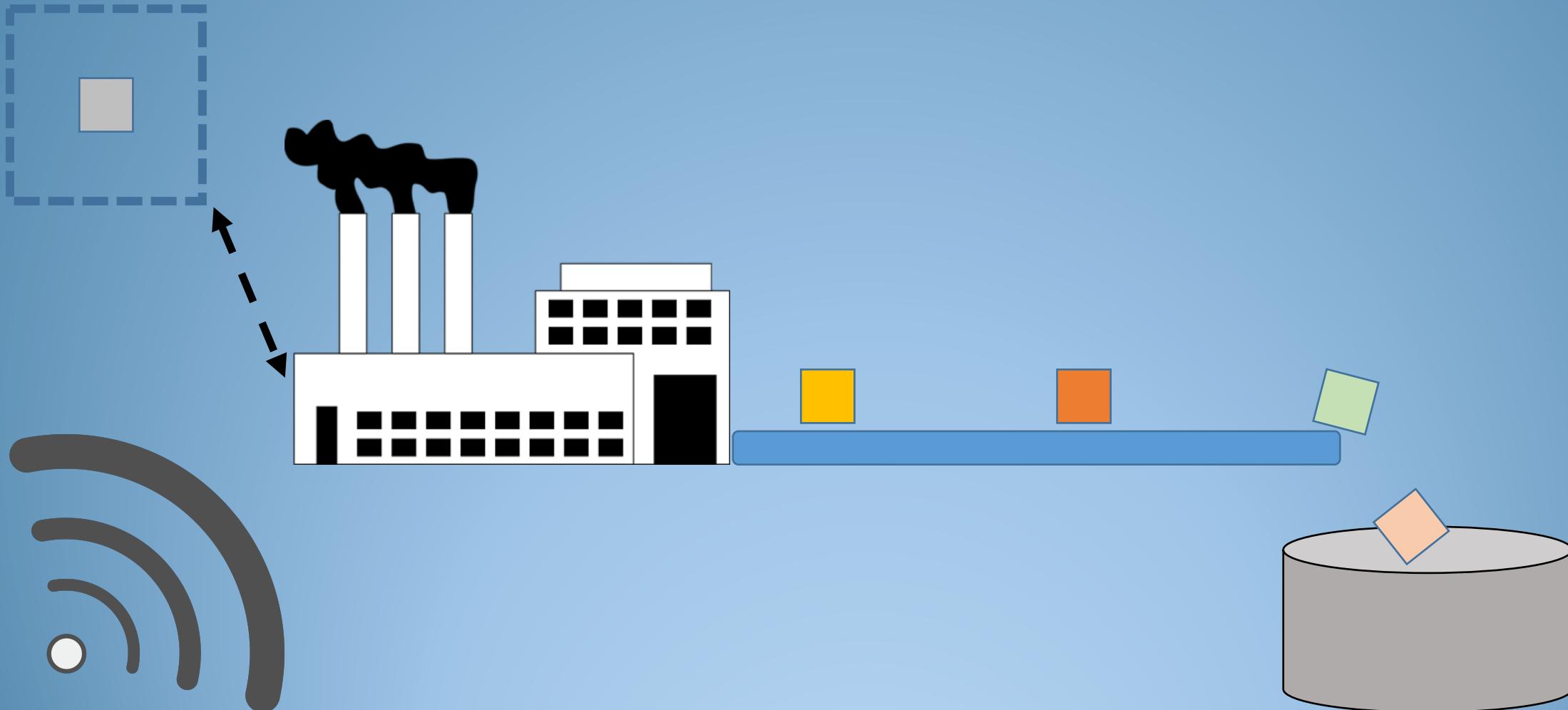
In Context of Swift

## Cocoa Version of MVC Design Pattern



Note: There is no direct communication  
between Model and View

# Architecture – Fabricate Pattern



# Testing Infrastructure

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Simple Habits

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# Testing Infrastructure – Xcode Unit- & UI-Testing



| AlarmClockTests 10 tests             |   |   |
|--------------------------------------|---|---|
| ▼                                    | T | AlarmCoreData   |
|                                      | t | testPerformanceExample() <span style="color: green;">✓</span>       |
|                                      | t | testAlarmCreationAndSaving() <span style="color: green;">✓</span>   |
|                                      | t | testAlarmDeletion() <span style="color: green;">✓</span>            |
| ▼                                    | T | TravelCalculation   |
|                                      | t | testPerformanceExample() <span style="color: green;">✓</span>       |
|                                      | t | testTravelCalculation() <span style="color: green;">✓</span>        |
| ▼                                    | T | TravelCoreData  |
|                                      | t | testPerformanceExample() <span style="color: green;">✓</span>       |
|                                      | t | testTravelCreationAndSaving() <span style="color: green;">✓</span>  |
|                                      | t | testTravelDeletion() <span style="color: green;">✓</span>           |
| ▼                                    | T | WeatherTesting  |
|                                      | t | testWeatherAp...lsruheCoords() <span style="color: green;">✓</span> |
|                                      | t | testPerformanceExample() <span style="color: green;">✓</span>       |
| AlarmClockUITests 2 tests, 1 failing |   |   |
| ▼                                    | T | CreateAlarm   |
|                                      | t | testCreateAlarm() <span style="color: red;">✖</span>                |
| ▼                                    | T | WeatherTest   |
|                                      | t | testWeather() <span style="color: green;">✓</span>                  |

# Demo



# Questions

How  
much info  
can you  
Process?