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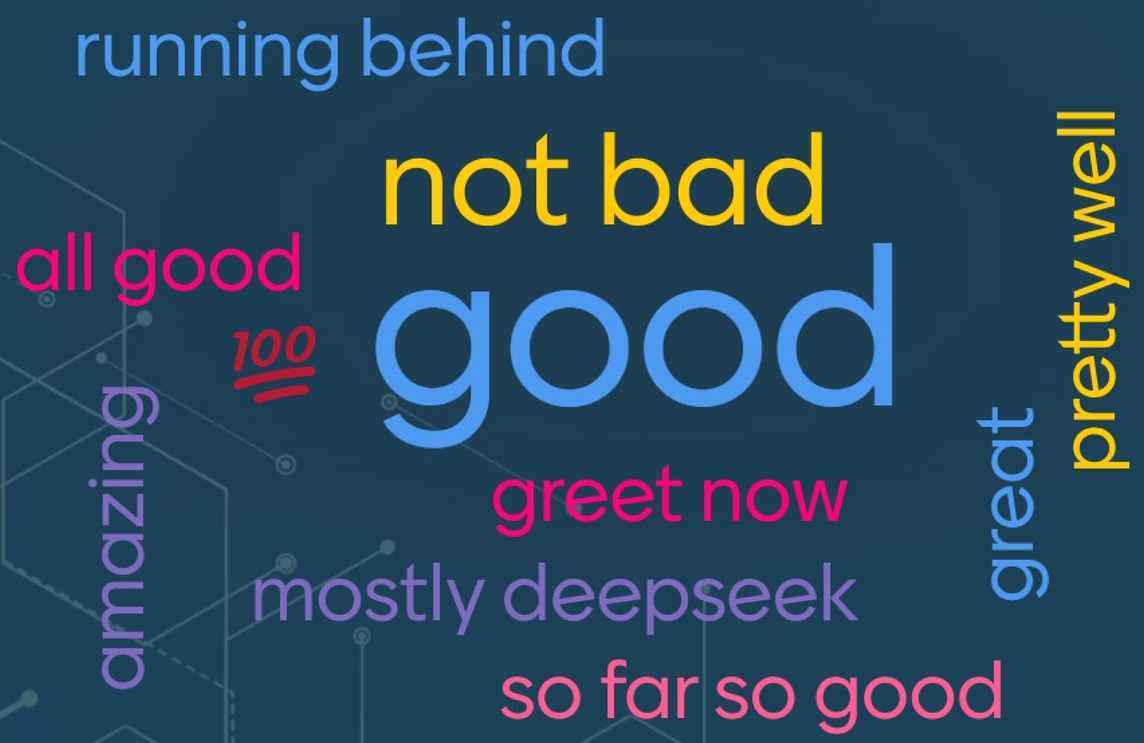
Instructions

How is it going?

17 responses



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Today's agenda

- Recall
- Architectural Patterns
- MVC, MVP, MVVP
- Comparison
- Live coding: MVC with servlet

What do you remember from the last session?

11 responses

we didnt discuss much

agenda of all sessions

java is easy to read

about you

introduction

andrey

java is easy

greeting with you

intoductory course

practice deadline

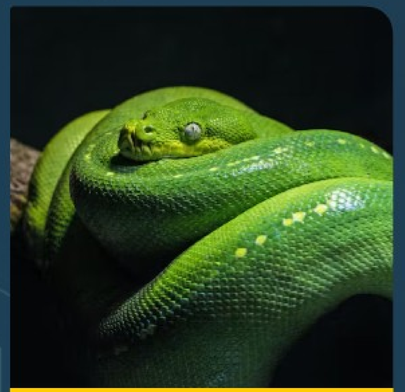
discussed python and java

9

Java | Python | C | Not Found ???

13

7



4

5

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Benefits of Java language in Web Development ?

Rest API

security

Write code once, and used it everywhere

Broadly used

maintainable code, speed

Multithreading Open-Source Advanced Framework OOP based

speed

good salary

Benefits of Java language in Web Development ?

Scalability

flexibility and security

OAuth2, JWT, Microservices

Security Features

Spring boot for easy coding(Otabek)

community

multithreading

Used in banks, shops, and business websites. (Otabek)

Benefits of Java language in Web Development ?

faster than interpreted langs

Scalable, secure, versatile, platform-independent, reliable

Benefits

- Community (Experience)
- Libs \ frameworks (Opensource)
- Huge legacy supported by giants (Demand)

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Architecture Advanced

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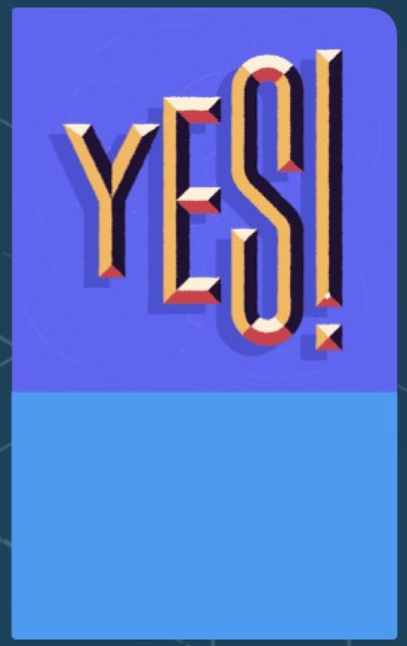
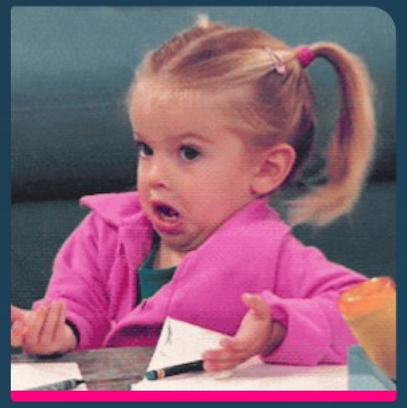
Have you started the theory of architecture advanced?

11



1

0



??????????????????

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Live coding

MVC with servlet

https://github.com/AndreiRohau/itpu-java-web-2025/tree/main/ws-02-architecture-advanced

What is the difference between Architectural pattern and Design patterns?

Architectural patterns shape system structure, while design patterns solve specific problems

hello

hello

Architectural pattern is more of a blueprint of the house while Design patterns are its interior

Architectural Patterns provide a high-level structure for your software, determining how components interact and communicate (e.g., MVC, Microservices). Design Patterns are specific solutions

Design deals with the development of a single component while architectural deals with the overall system development

Architectural patterns .How to organize the system. Design Patterns .How to solve specific coding challenges inside that system.

Design patterns are only applicable in Linux

What is the difference between Architectural pattern and Design patterns?

AP - general structure
DP - modules/classes particularities

Architectural Patterns are concerned with the overall structure and organization of the system, while Design Patterns focus on solving specific, localized problems within that structure

Architecture

- address a myriad of challenges in software engineering, such as computer hardware performance restrictions, high availability, and business risks
- deals with the overall structure of the application

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Design Pattern

- recommended solutions
- best practice

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MVC, MVP, MVVM

Decipher abbreviations MVC, MVP, MVVM

Model-View-Controller

model view controller

Model-View

Model View Controller
Model View Presenter
Model View ModelView

Model view Controller,
Model view presenter,
model view view model

m-model v-view c-controller p-presenter vm-viewmodel

oops, not ModelView -> ViewModel

Model—View—Controller(MVC), Model—View—Presenter(MVP), Model — View — ViewModel (MVVM)

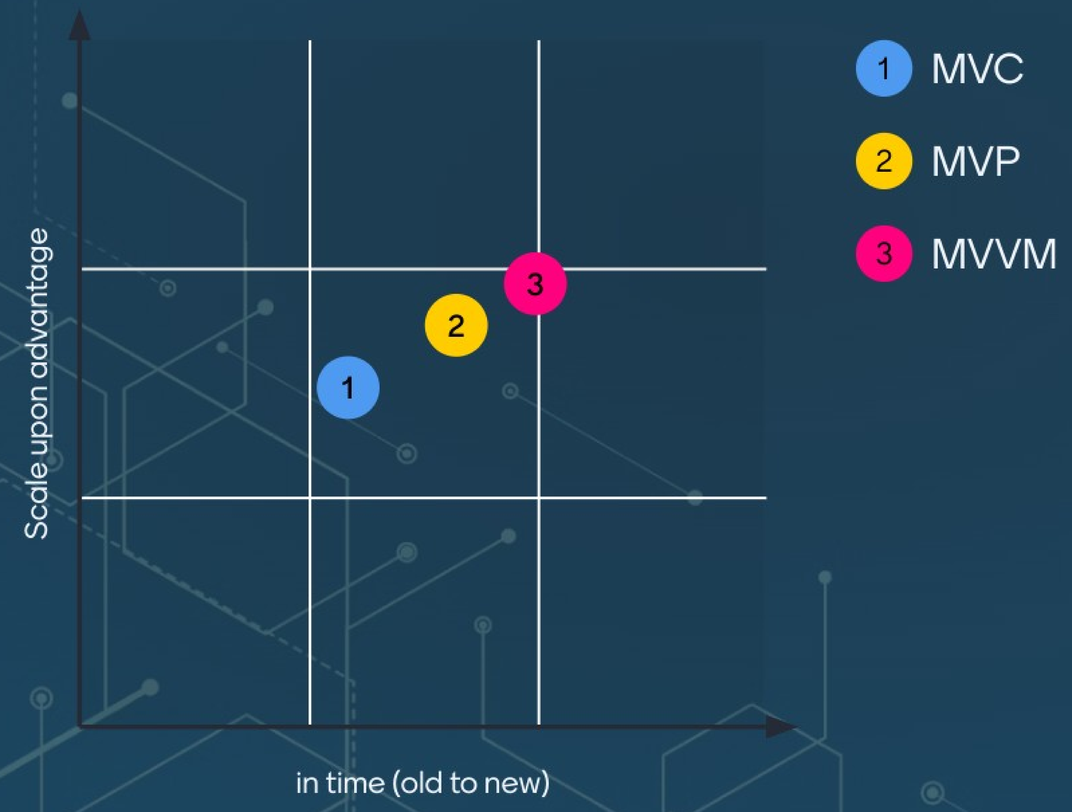
Decipher abbreviations MVC, MVP, MVVM

Module-View-Controller
Module-View-Presenter
Module-View-ViewModule

MVC M - is a model which represents business logic V - represents the view that holds UI for users C - controller that handles requests

MVC - Model-View-Controller MVP - Model-View-Presenter MVVM - Model-View-ViewModel

Place from old to new and from min benefits to max

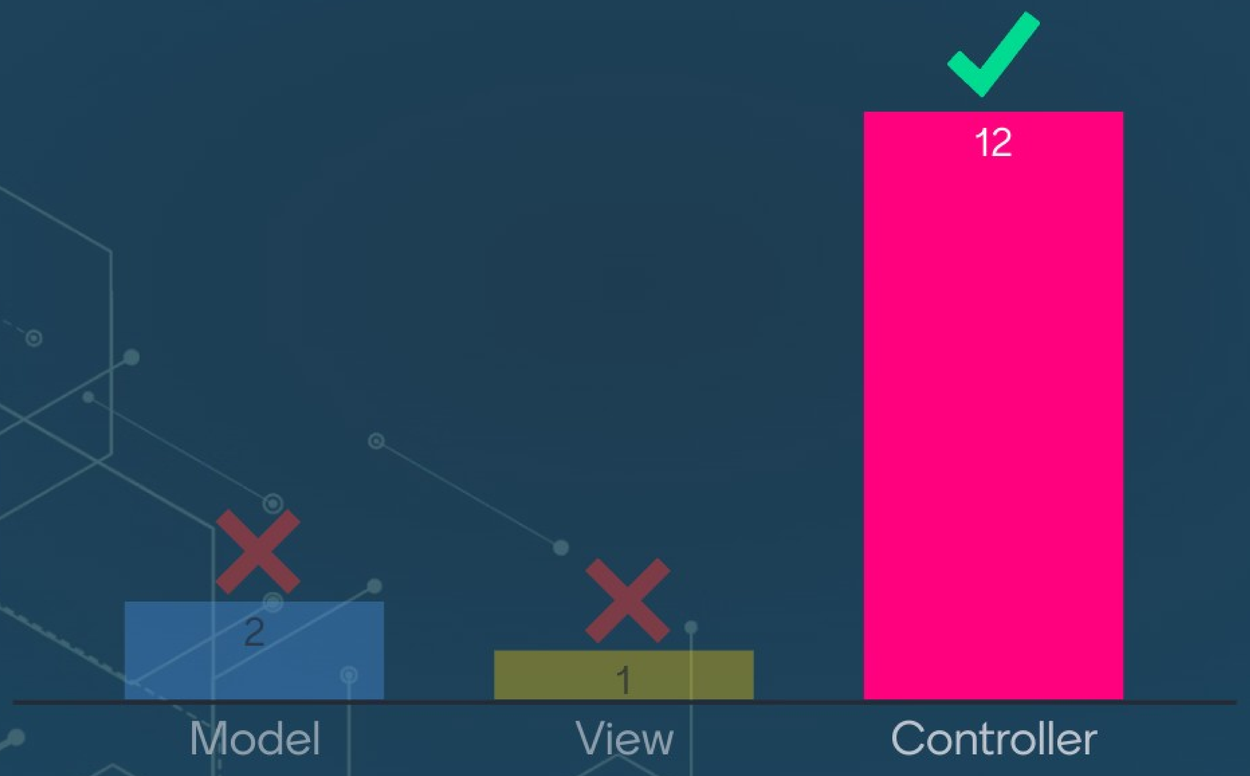


1 MVC

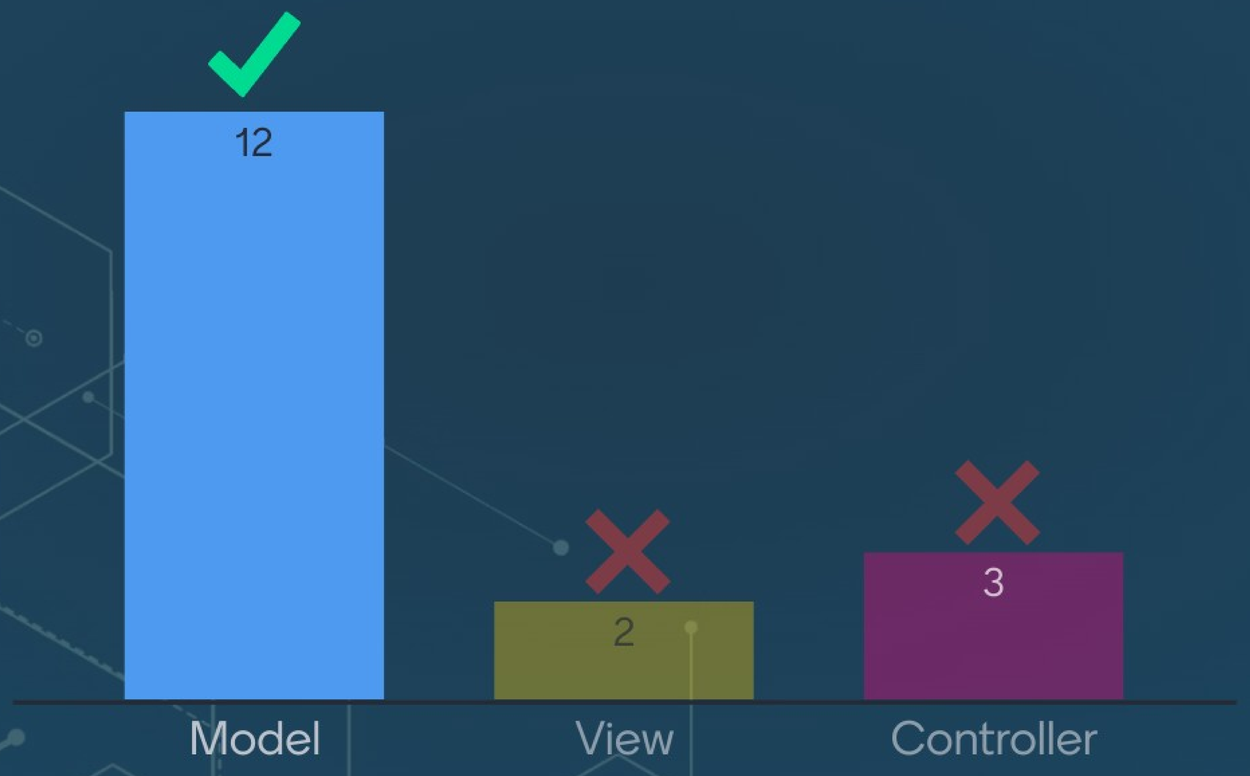
2 MVP

3 MVVM

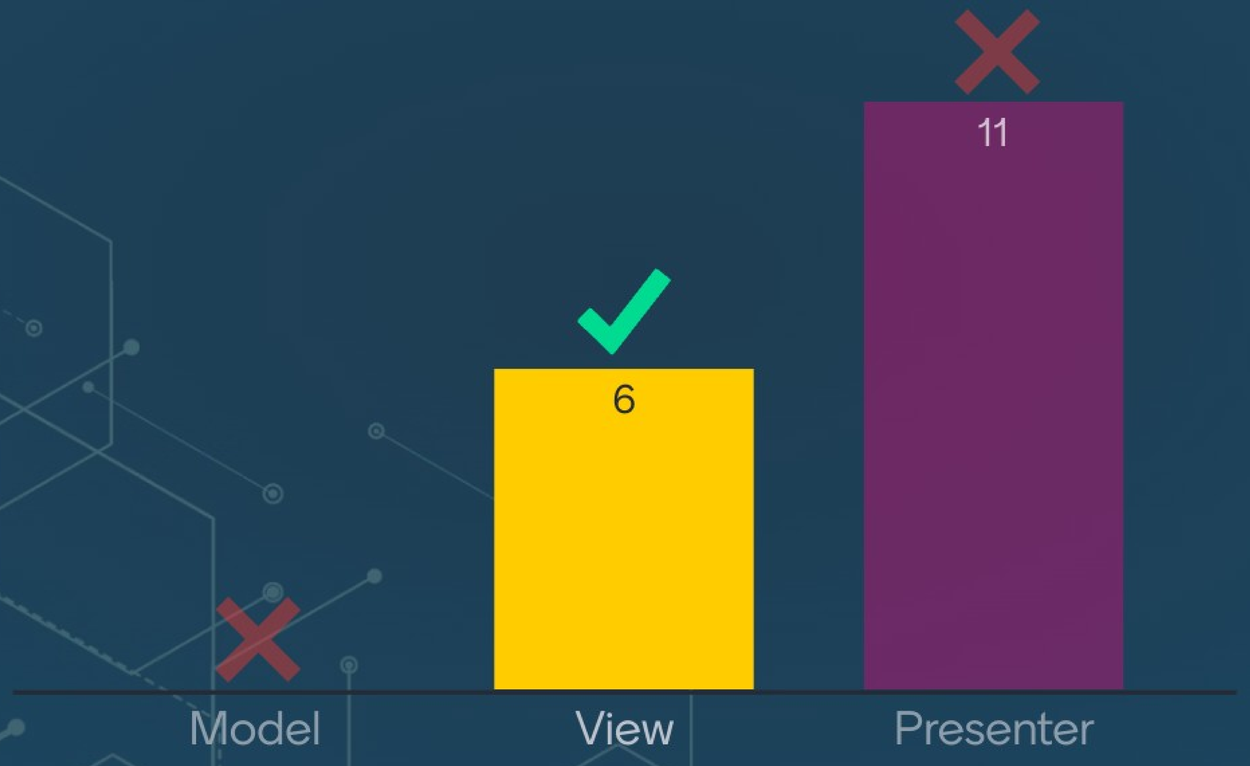
Who is receiving requests in MVC?



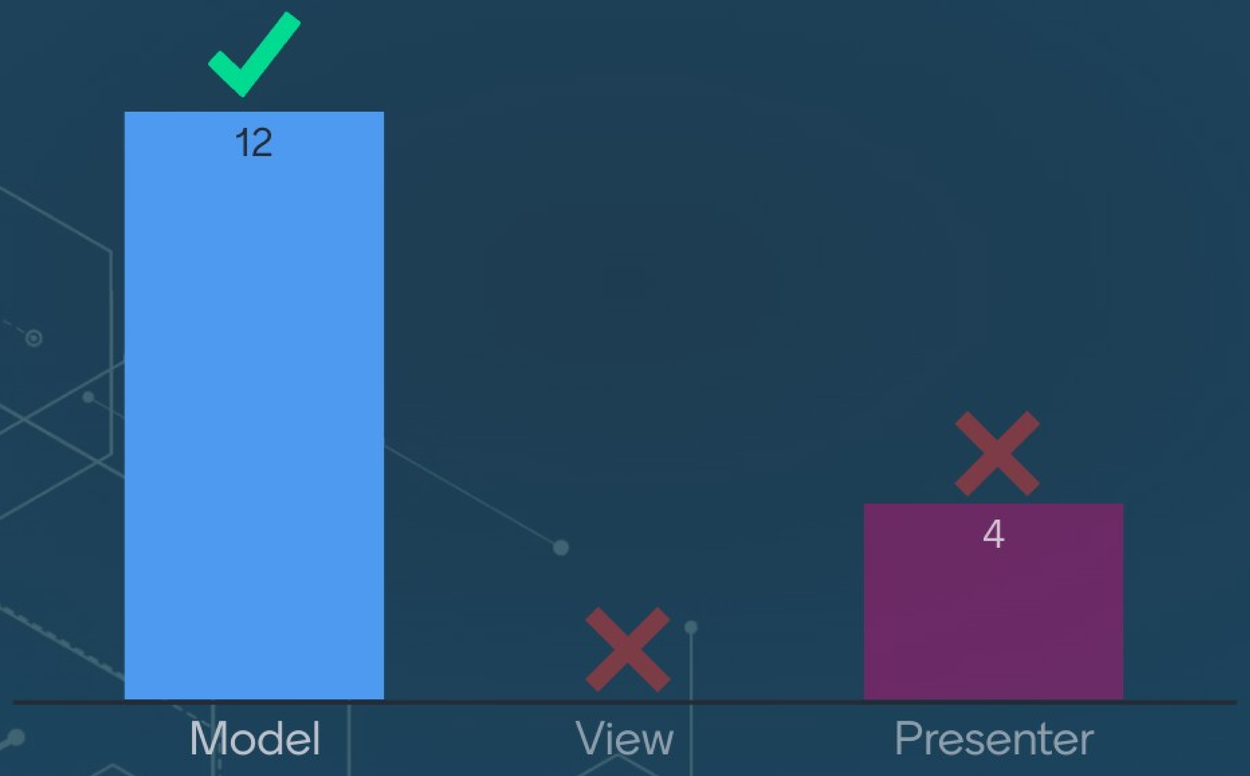
Who is keeping business logic in MVC?



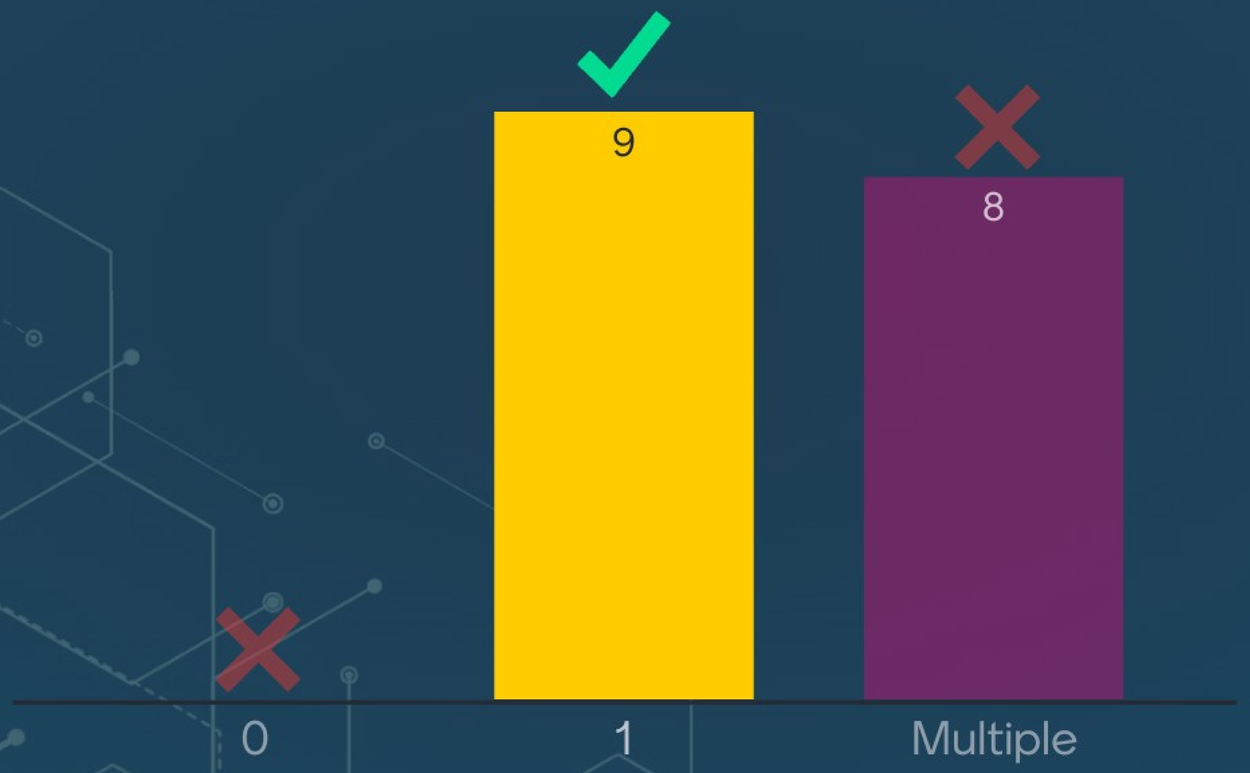
Who is receiving requests in MVP?



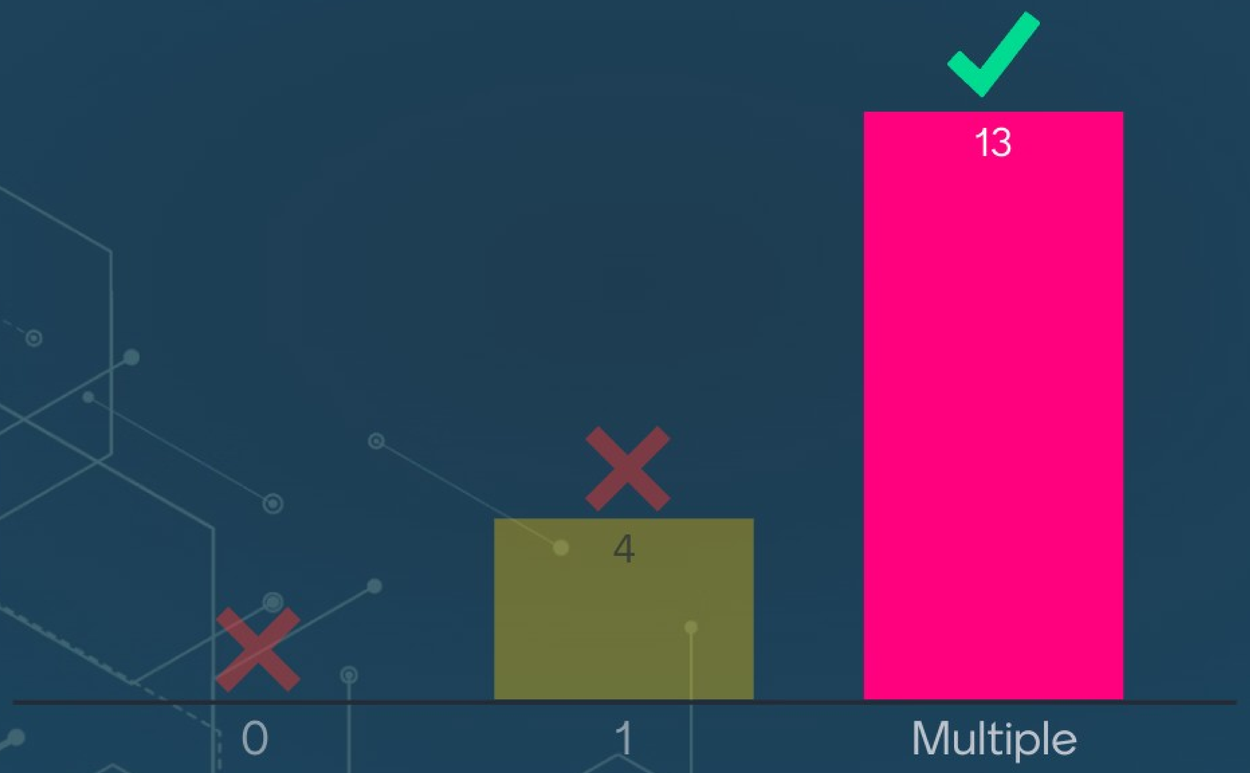
Who is keeping business logic in MVP?



How many views can be refered to Presenter in MVP



How many views can be refered to ViewModel in MVVM



Summary

In MVC the Controller handles events, manipulates the Model, which contains business logic, and the View displays data from the Model. One Controller supports several Views.

In MVP, the data from the Model is passed to the Presenter and not directly to the View, and the Presenter passes it to the View. One presenter can refer to one View.

In MVVM, the data from the Model is passed to the ViewModel, which can support multiple Views. The View knows nothing about the ViewModel, it only requires the data you need.

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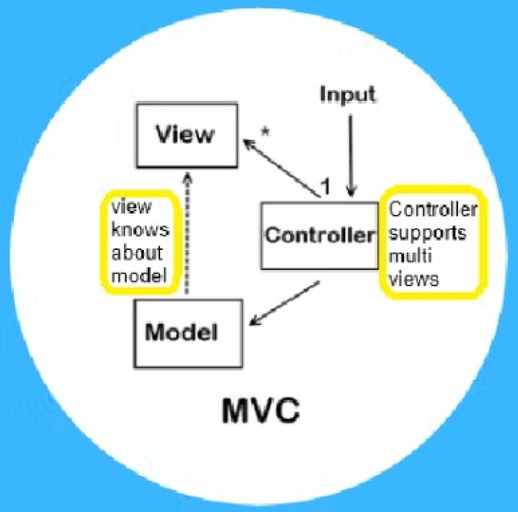
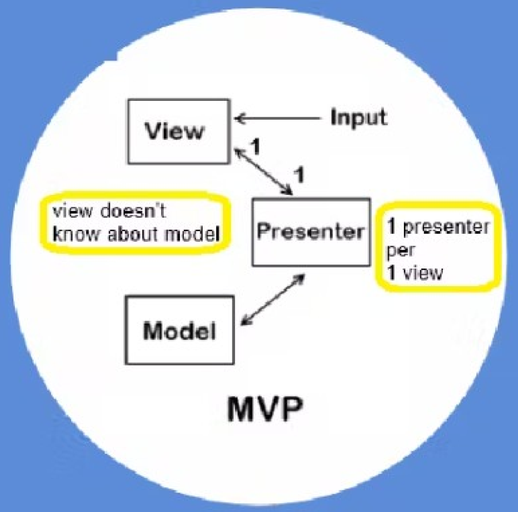
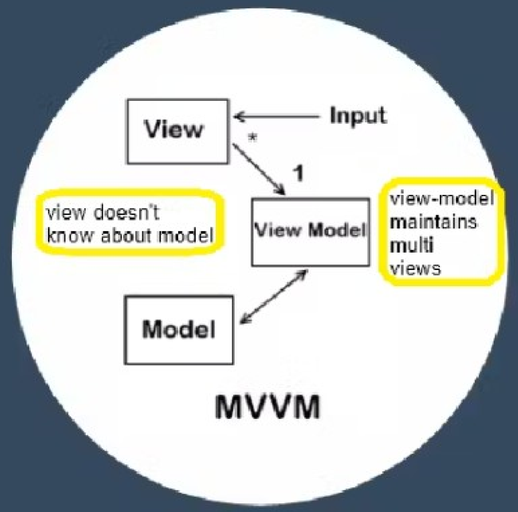
MVC VS MVP VS MVVM







Additional explanation

https://itcraftapps.com/blog/mvc-mvp-and-mvvm-architecture-pattern-introduction/#:~:text=In%20MVP%2C%20the%20data%20from,which%20can%20support%20multiple%20Views.

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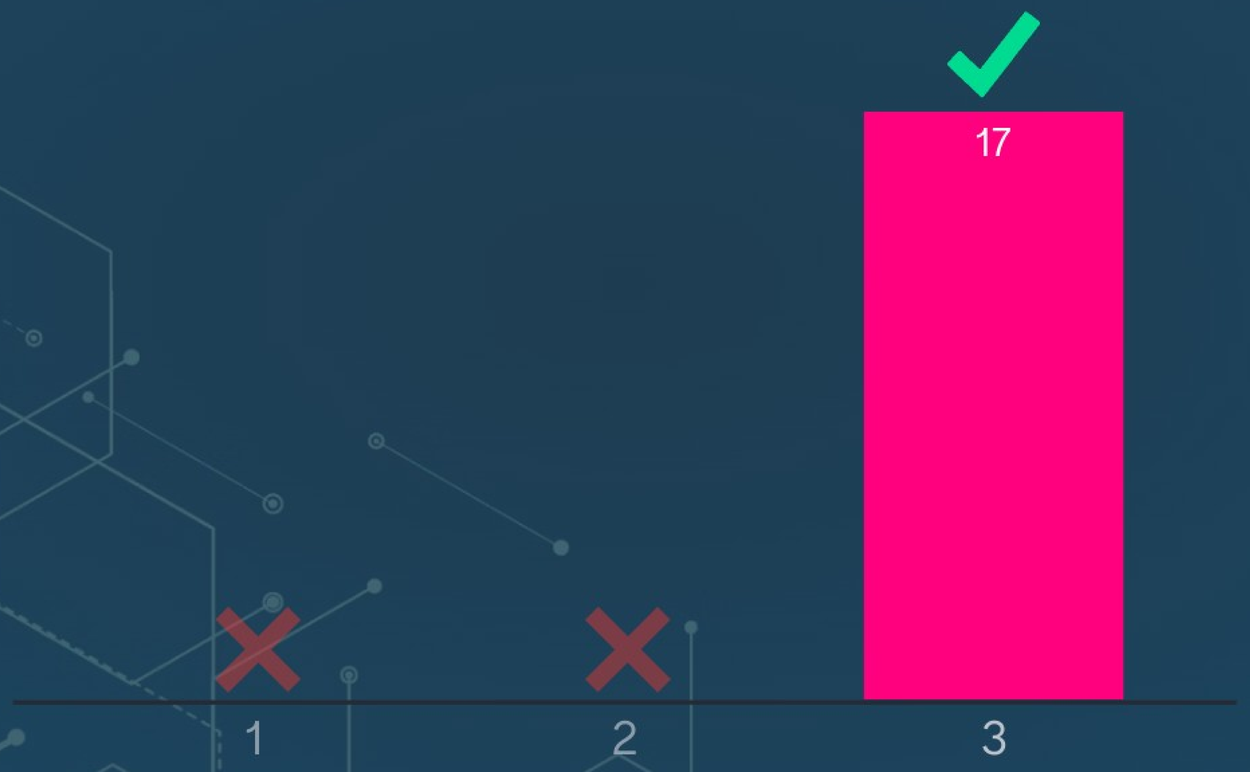
Layered architecture pattern

How many structural layers in 'Layered Design' ?



What are the layers in Layer Design ???

skip

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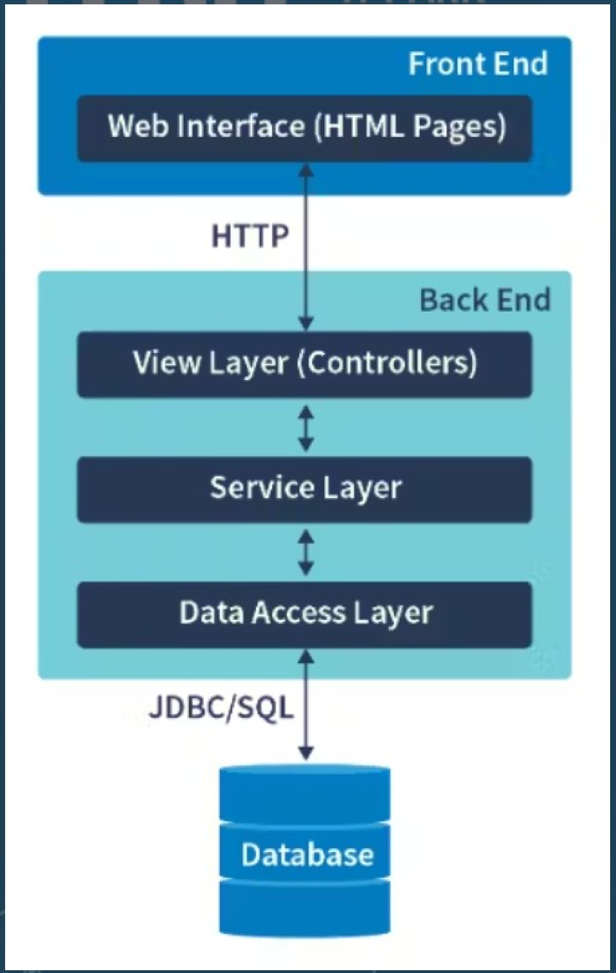
Front End
Web Interface (HTML Pages)
HTTP
Back End
View Layer (Controllers)
Service Layer
Data Access Layer
JDBC/SQL
Database

Next time: Database Layer Design

Quiz leaderboard

Questions?

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thanks