

Agenda

Product Service

↳ fakestore Service (3rd party)
Partly

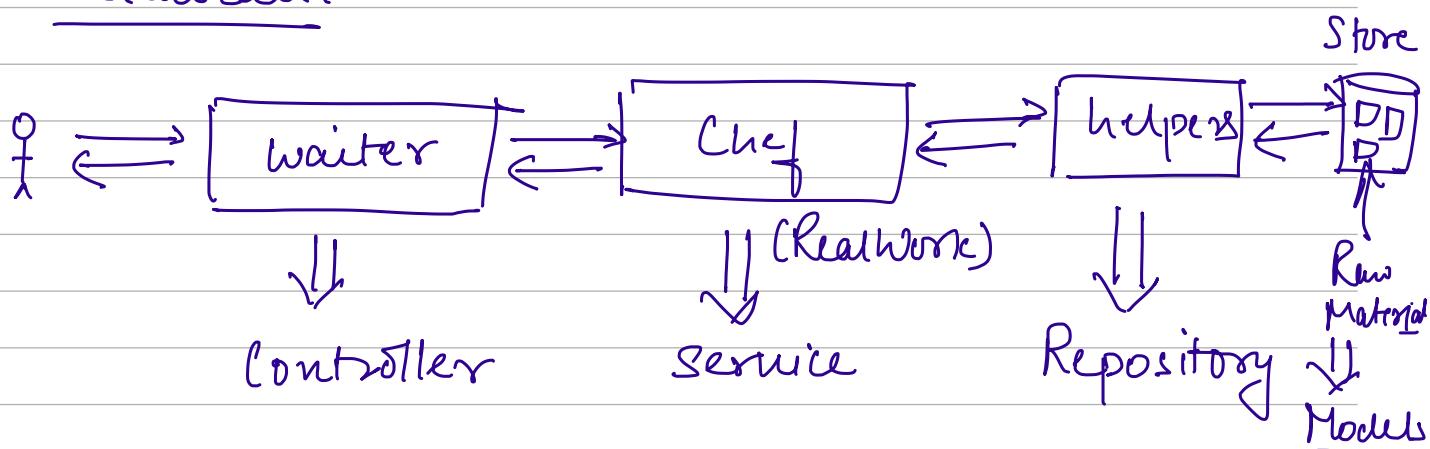
- 1) Build our first API
- 2) MVC Architecture
 - ↳ Package Structure
- 3) Journey of request in spring
- 4) Rest Practices
- 5) (create | Delete) APIs

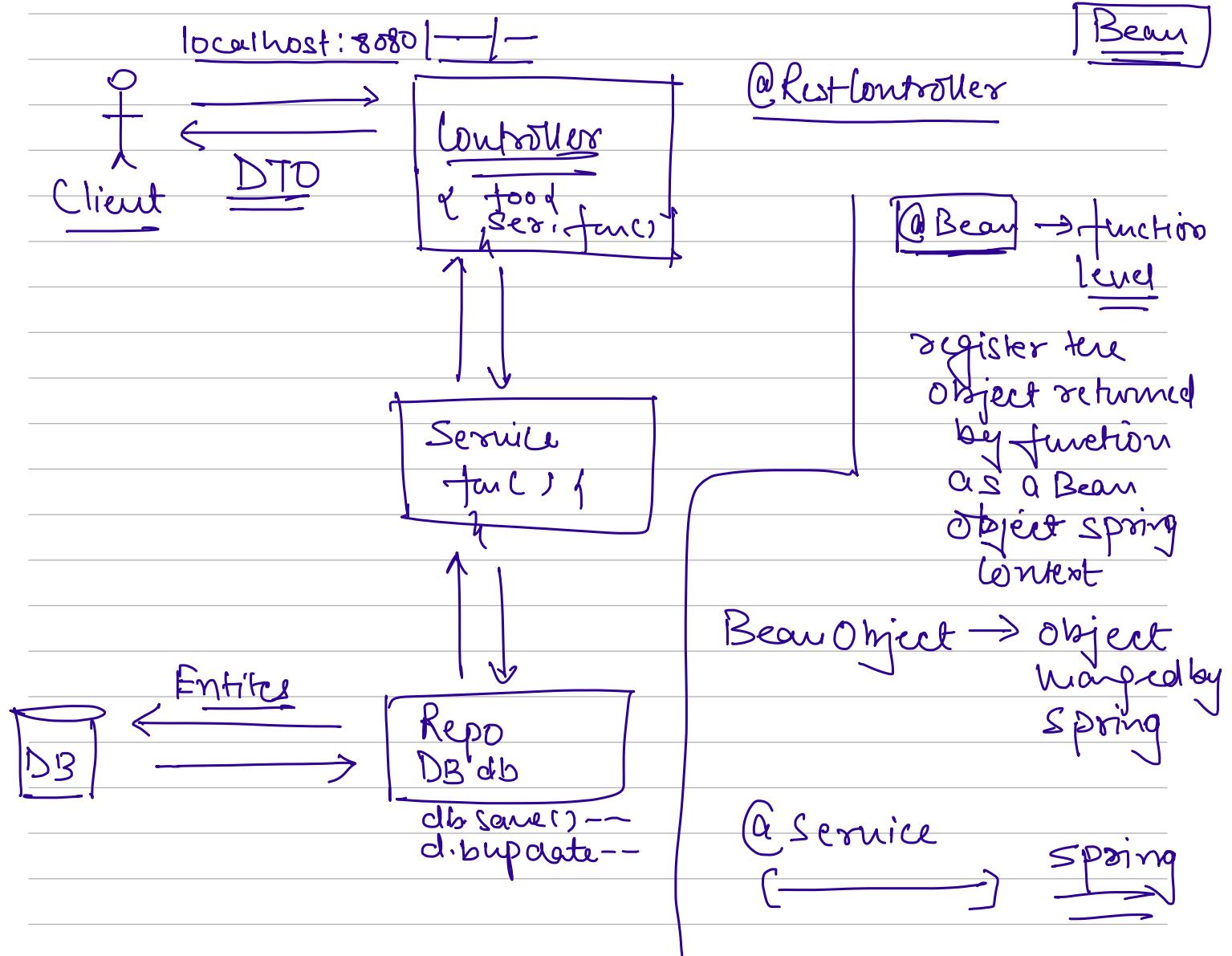
Next Class

- 1) Put | Patch | Post
- 2) Get All Product API (Generic)
- 3) Response Entity
- 4) Response Codes

MVC Architecture

Restaurant





→ } Path Variable → | { | }
 → } Body → JSON Object

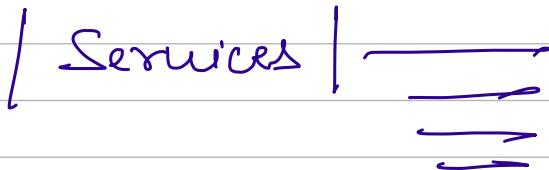
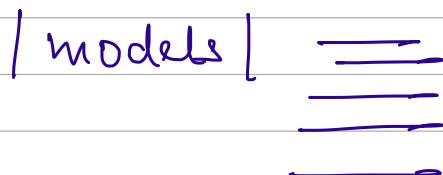
[JSON → JavaScript Object Notation]

XMLE →
text

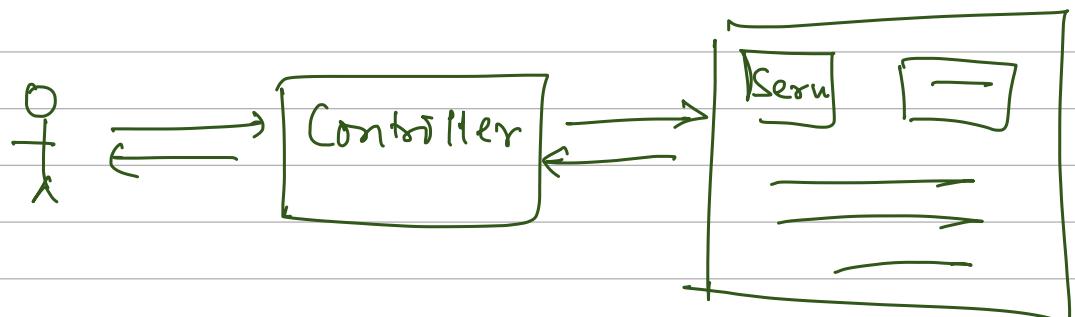
[Query Param]
 ↓
search
 [/{?k=}]

MVC : Design Pattern for APIs

Divide the code in multiple set of classes with defined Responsibility



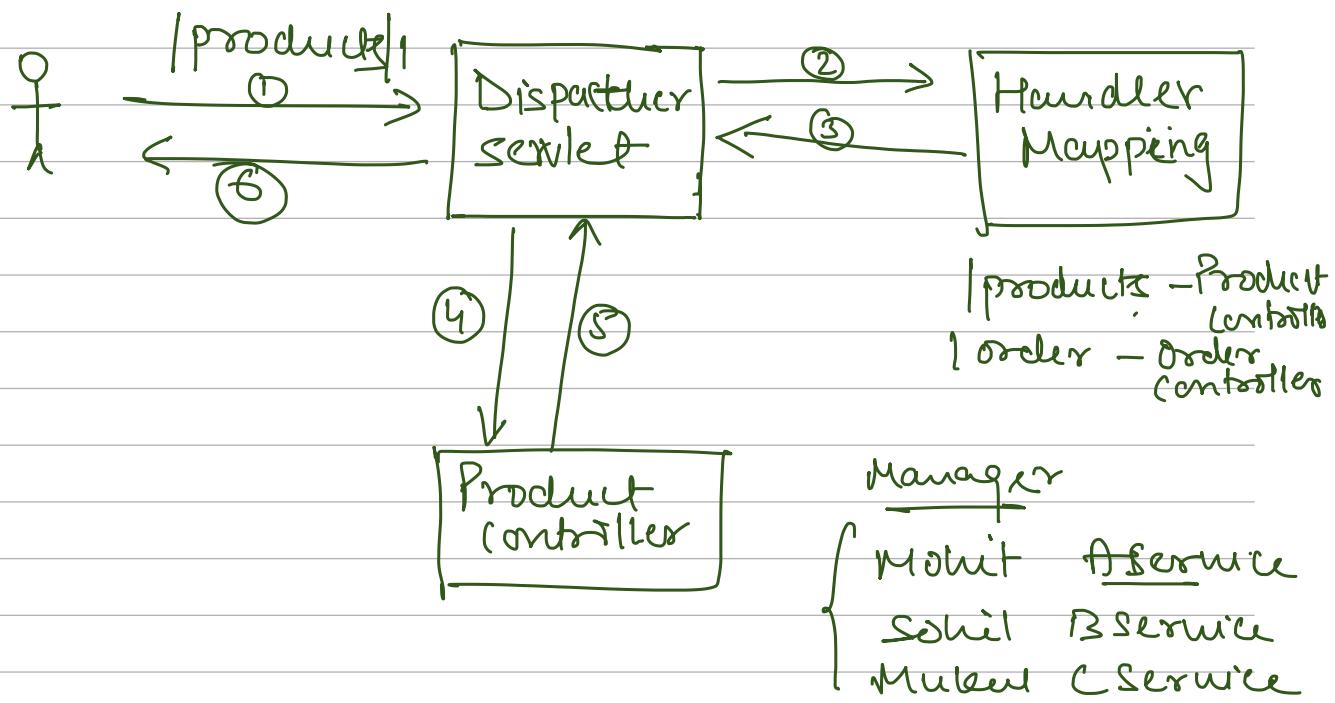
Journey of Request in Spring



Product
 → Product Controller

Order
 → Order Controller

Delegator



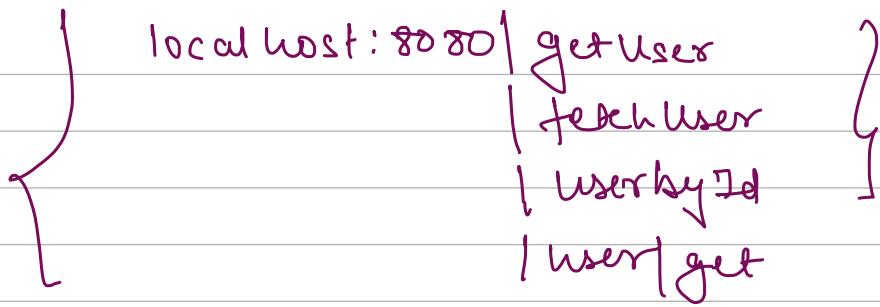
① API request is received by dispatcher
Servlet

② Servlet asks handler mapping for
Correct method to be called for a
given URL

SOLID | Design Pattern: How to structure the
Code

MVC : How to structure the APIs

REST : How to Name the APIs

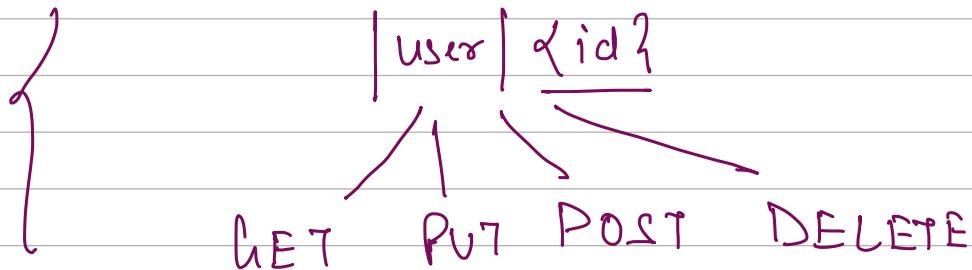


→ All the APIs should be structured around Resource
Entities that API is trying to work on

→ API will be working on some data of
Entity passed as Body | PathVariable

→ The type of action should NOT be part
of API endpoint

↳ instead they are going to be
part of HTTP Method



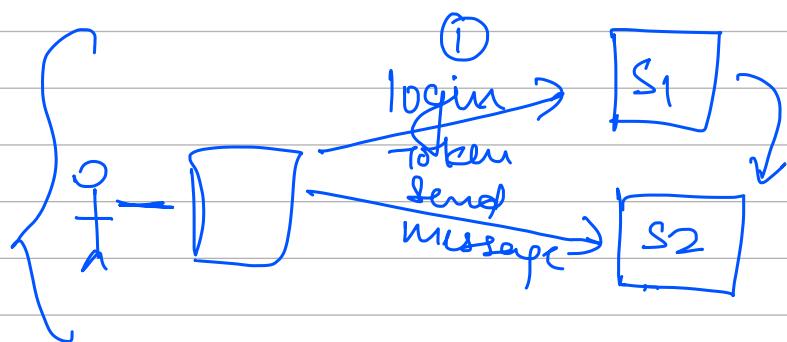
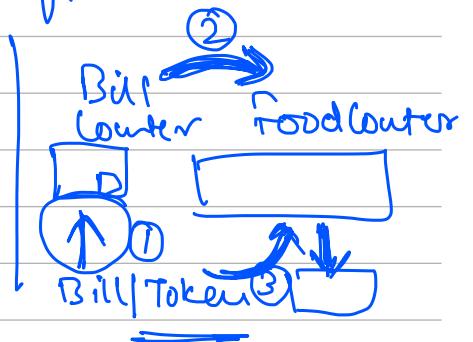
Best Practices of REST API

Idempotent

① Rest API should be stateless

Every request should be self sufficient

Current request should not depend on the previous request



② Newton ← User

Users

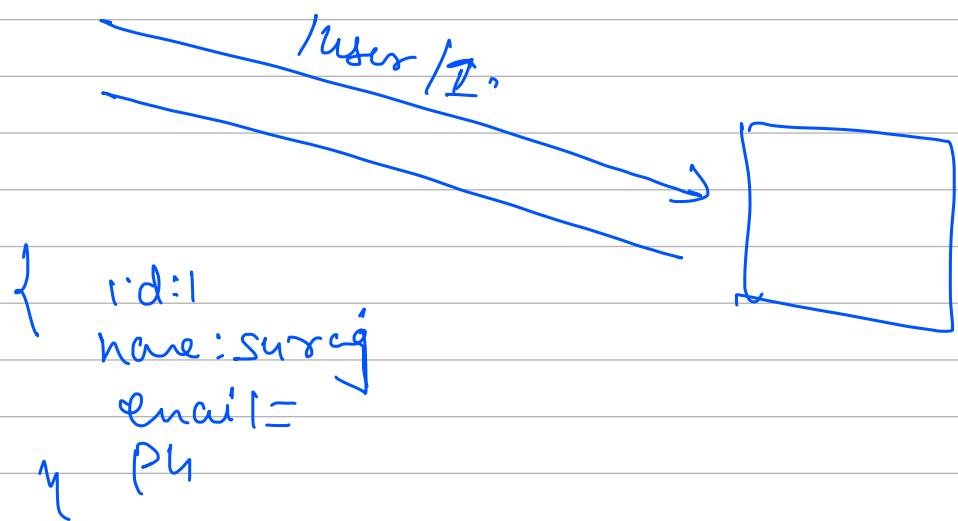
| ID | Name | Email | Ph |
|----|-------|----------|-----|
| 1 | Surya | surya@-- | xyz |

Metric

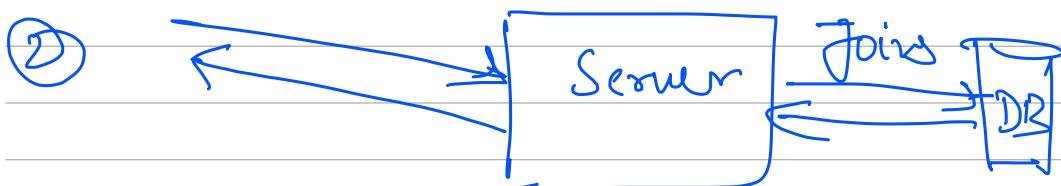
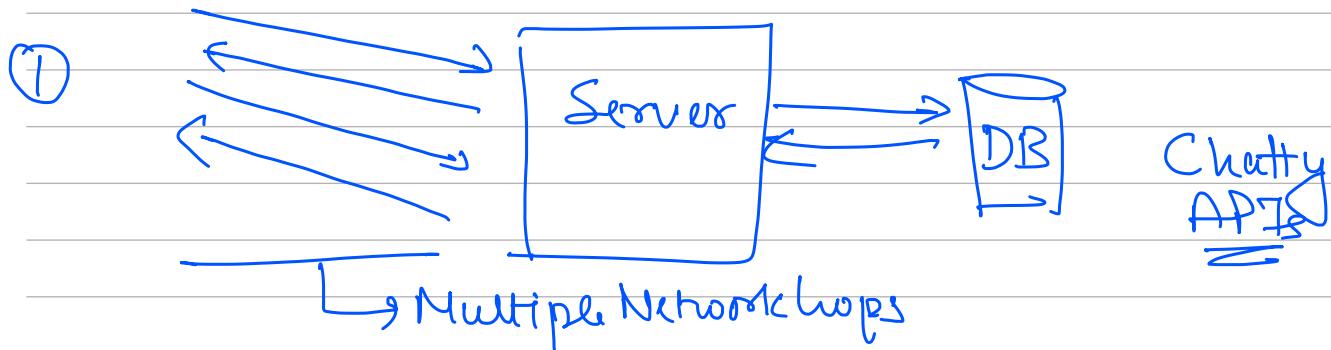
| id | compName | userId |
|----|----------|--------|
| 1 | Google | 1 |



```
{
  id: 1
  comp-name: Google
  user-id: 1
}
```



```
{
  id: 1
  name: suraj
  email =
  ph
```



Chatty APIs : APIs which doesn't return all the relevant data in one go

⇒ May require client to make multiple API Calls

⇒ SLOW

Q1P = ? mentorId = 1

Comp-name : Google

User { id = 1

Name: Suraj

Email -

Ph -



[Try not to have chatty APIs in System]