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⇒ What is the API?

Application Programming Interface is an interface for an application to be used may be remotely or locally

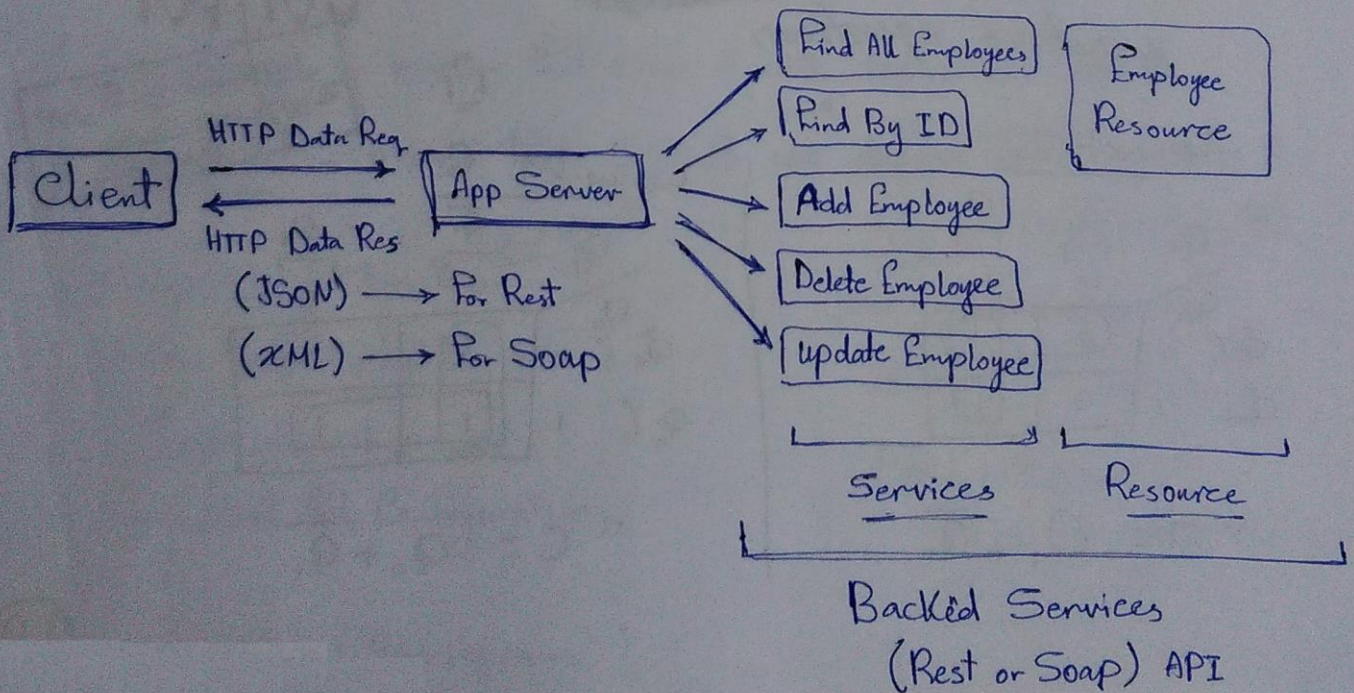
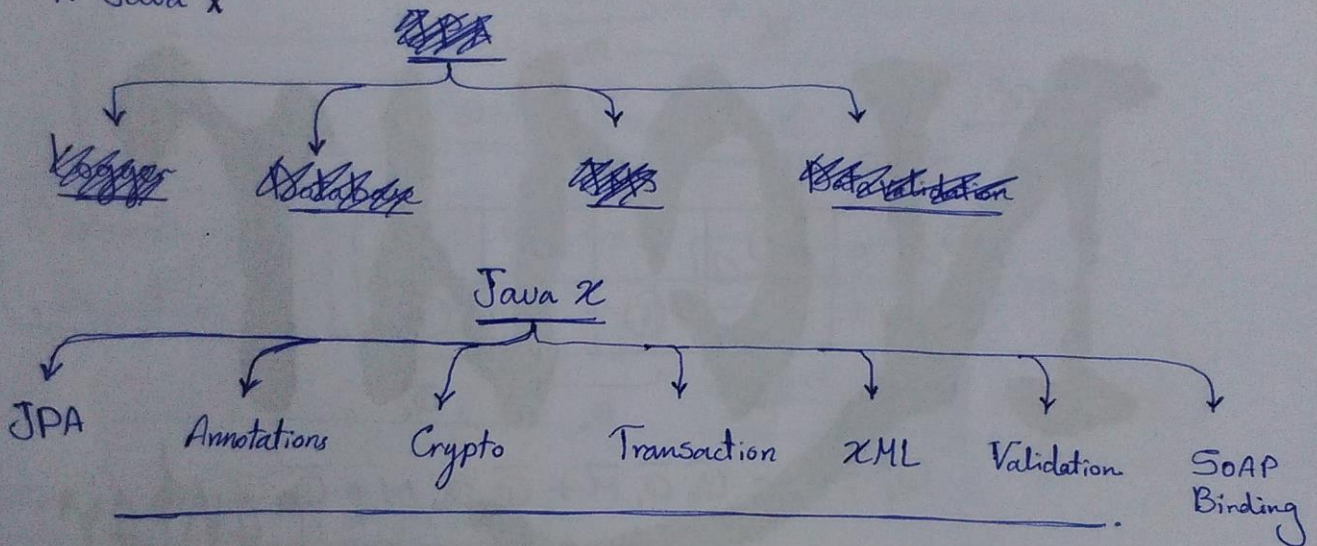
Examples:

1. Web Services → (Rest & Soap) (Remotely)

~~2. JPA~~ (Locally)

3. Java RMI → (Remotely)

4. Java x

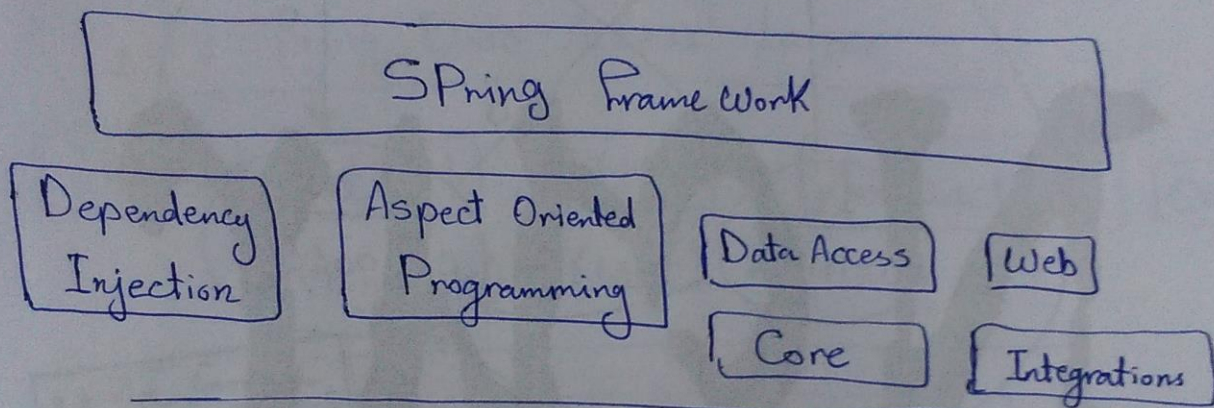


⇒ What is Spring?

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Spring is a development platform used for developing Java Application and There are some extensions for web & Java EE Applications

1. It's lightweight & Simple Compared with EJB
2. It doesn't need a Container (App Server) only Servlet Container
3. Make use of the Java Frameworks
4. Light IoC Containers



⇒ Dependency Injection :-

1. Dependency :- means that Class A will depend on Class B

2. Injection :- means that Class B will ~~depend on~~ ^{be injected} in Class A

Example :- Class B (stand alone)

```
Class PropertyReader {
    Constructor() {
        Read the Configuration
    }
    get value (Property name) {
    }
}
```

Class A (Dependent on B)

```
Class AuthService {
    @Inject B ConfigLoader;
    Public authUser() {
        ConfigLoader. get getValue (-);
    }
}
```


⇒ Aspect - Oriented Programming :-

(3)

1. Cross-Cutting Function : are functions span multiple points of the application Such as: (Logging - Authentication - Authorization - ...)
2. Unlike OOP in which class is the Building Unit of it, in AOP Aspect is the Building Unit of it.
3. It separate the Functional Tasks than the Business Logic.

Spring Data Access Layer

JDBC

ORM

JMS

Transactions

OXM

(Hibernate) (Queue)

Spring Web Layer

Rest

SOAP

Web
Sockets

MVC

★ Spring also Support using of more other Frameworks Such as:
(Quartz - Log4j2 - JDK Timers - ORM - Jersey)

What is Maven, npm, Gradle, bower, Ant, Yarn?

1. Apache Maven : It's a Software Project Management tool used for (Building - Reporting - Packaging) & act as a lib Repository

2. What is npm ?

(4)

↳ It's a Package Manager for the JS Runtime Environment Node JS & act as a library Repository

⇒ What is Spring Boot ?

It provides a Simpler & Faster way to Setup, Configure and run both Simple & web Based Application

↳ Provide a web Server for deployment

↳ Simplify the Configurations