

[new ()]
↓
⊙
⌋

[Spring] → IOC

↳ Inversion of Control

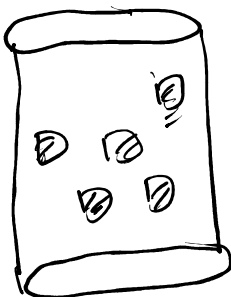
↓
Reverse

object created by spring
↓
Bean

programmer → Spring
control → Control

④ Spring will create the bean of all those classes which have @Component annotation written over them directly or indirectly.

Tomcat → Dispatcher Servlet
↓
Application
↓
Controller



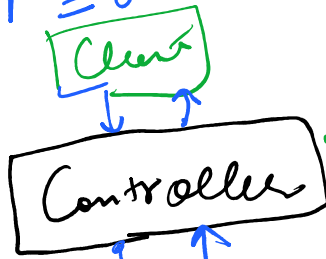
IOC container
Application Context

Layered Architecture of Backend Projects

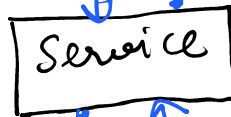
→ Strong coupling

→ Loose coupling

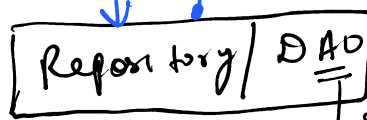
model classes / Entity classes
↓
classes that carry your data
ex student, Teacher, Customer



→ layer which contains all the API endpoints, doesn't contain any logic



→ Business logic



→ interacts with DB
DB operations

↳ Data Access Objects

Dependency Injection

C
S
R

M
E



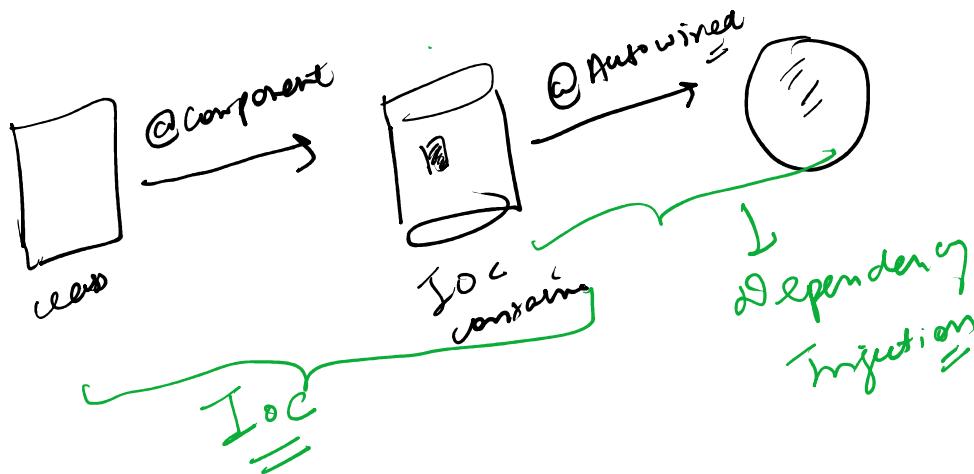
IoC

Controller → Service → Repo

→ @Autowired
↳ have been created by spring

Dependency Injection

→ @Autowired



Scope of a Bean

↓
How many copies
you have for a
bean

Student S1 = new Student();
Student S2 = new Student();

diff → [Student (S1);
Student (S2);

Controller, service, repo

↓
single copy

2 Repo
↓
2 instances



⊛ By default, Spring only creates
one copy of the bean.

↪ singleton scope

⊛ Prototype → DI → new Bean.

→ @Scope("prototype");