Spring:

IOC container 🡺

* It will create a bean object 🡺 It configures that bean 🡺 it will manages till its end of usage
* So, by default bean will be singleton object
* It will read data directly from Property files and config files.

Dependency Injection:

2 types:

1. Setter injection
2. Constructor injection

A 🡺 B 🡺 C 🡺 D 🡺 E 🡺 tightly coupled

New keyword

Class College

@Autowired

Private Student student;

Student.method();

Springboot:

@EnableAutoConfiguration

Web dependency

* Auto configuration 🡺 application
* Embedded tomcat server
* Maven build tool
* Dependency management
* Starter pom

Dependencies 🡺 versions 🡺 starter web dependency

Tomcat

Maven build

Spring context

4 or 5

Controller layer: All URLS related code

Service Layer: entire business logic

Repository/DAO(Data access Object) layer: Database related

Entity/model class: POJO class 🡺Student

Exception’s layer

Configuration

Util

A picture containing text, sky

Description automatically generated

@RestController

@Controller🡪 controller layer

@ResponseBody 🡺 Java object to Json object 🡺 HttpResponse

@RequestBody 🡺 Json data to Java object

@RequestMapping(value=”/api”)

@PostMapping(“/student”) 🡺 Saving data

@GetMapping(“/”) 🡺 Fetching data

@PutMapping 🡺 Updating data

@DeleteMapping 🡺 Deleting data

@SpringbootApplication 🡺 main method

@EnableAutoconfiguration, @SpringbootConfiguration, @ComponantScan

@Component 🡺 which makes entire class as a bean(object)

@Bean

@Service(“abc”)

@Transactional

@Repository

@Autowired

@Qualifier(“abc”)

@Primary

@ControllerAdvice

@ResponseBody

@RestControllerAdvice

@ExceptionalHandler

ResponseEntity<List<Student>>

@Value(“$(key)”)

@PathVariable 🡺 http://localhost:8080/api/student/1/64/name

@RequestParam 🡺 http://localhost:8080/api/student?studentId=1

Private String variable;

@RestController+@Controller+@service+@Repository+@Component 🡺 Stereotype annotations.

findBy…..

JPQL

SQL🡺native query

CRUDRepository

JPARepository

DTO: Data transfer object 🡺

StudentDTO

Name

Email

mobileNumber

Student

Id

Name

Email

mobileNumber

address details

parents details

Software:

PostMan

mySQL Server

Workbench

Apache Tomcat server

Apache Maven

Student 🡺 Address 🡺 College 🡺 Course

Employee 🡺Address 🡺 Company 🡺 Projects