1. Introduction of Spring Boot

Its advantage over Spring MVC and

Servlet based Web Applications.

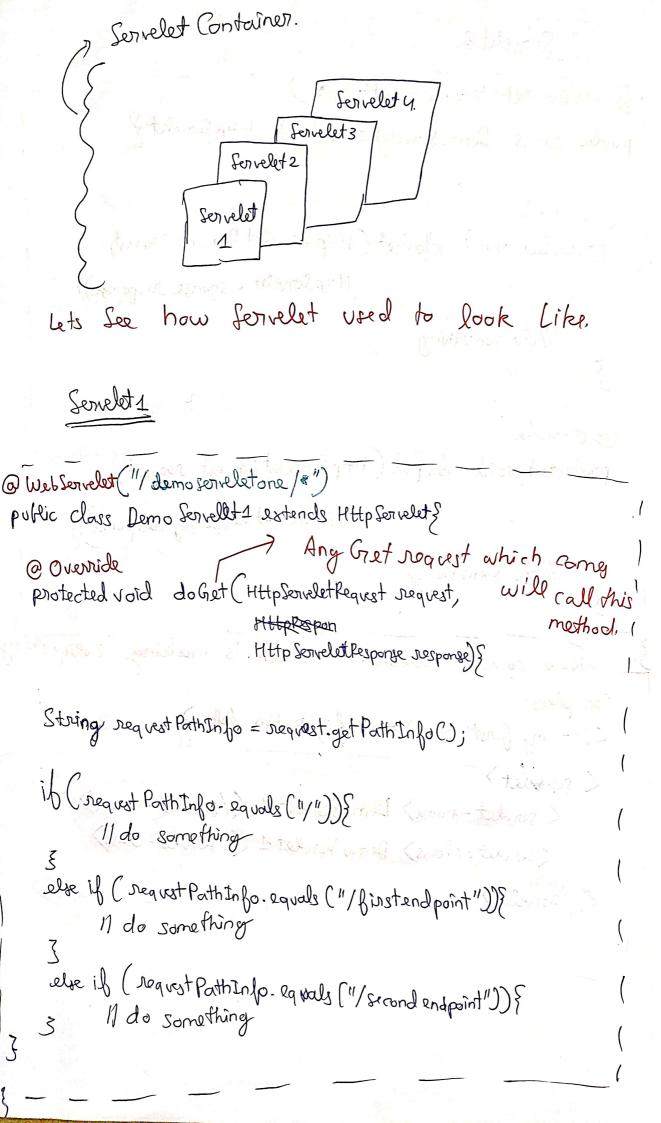
J.

To understand Spring Boot, lets first understand why Spring Boot came into picture and what problem it solved.

During 2015-16 Fra when I was in class 11 of class 12, the then working software engineers did not have Spring or Spring Boot. They operated on something called [Servelet]

What is a servelet ?

- \* It is foundation for building web Applications.
- \* Sorulet is a Java class which handles client request and processes it.
- \* Servelet container manages Servelets.

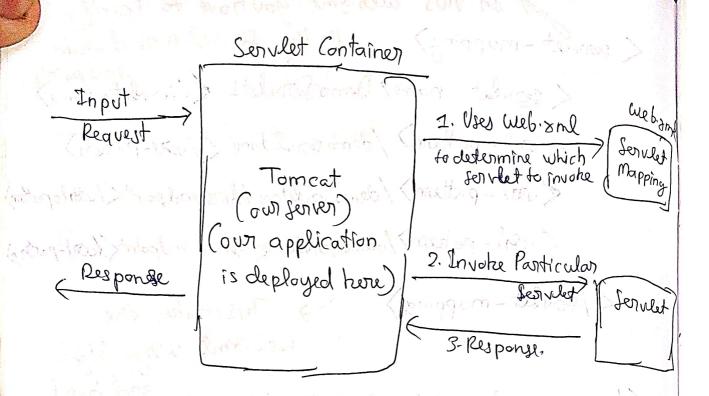


,	Sen	vel	let	2
_	nel	_	_	

@ Web Servellt ("/demo sorvelet two/8") public class Demoservelet 2 extends HHP Servelet & e Ovenile protected void do Gret (HHP Servelet Request request, HHp Sorvelet Response response) } 11 do something @ Ovnide protected void do Pot (HHP Servelet Request request, HHp Sorvelled Kespenye, response) } 11 do something Tipob Lovethol Now comes Web. sml which is making everything Complex. <!-- my first pervelet configuration below? < servedet> < servlet-hame Demosorvelet 1 </sorvlet-hame> < servlet-class) Demo Sorvlet 1 (/servlet-class) < /sorvelet 2" tring braner ("/ ") thups. of ald to it traper ) fit who

(Christian Caron ) ster is yesters!

In this web some you have to specify
< servet -mapping> all the fer relets and their
Jan this websoml you have to specify ( serveet -mapping) all the fervelets and their ( serveet - name) Demo Servet
and the state of t
\( \omeganler \) / demo ser vletore \( / \omeganler \) / pattern \( \)
<ur><li>(usul-pattern) / demoseruletone / firstend point </li></ur>
< Usil- pattern / clema cerry before / googs lond of
/servelet -mapping > This makes the web. In very 6ig
1195 makes the
we vishy big
< ! my second servlet configuration below> and hard
Z servlet > maintain.
Maintain.
< servlet -name > Demo fervlet 2 ( servlet - name > Cservlet - class > Demo fervlet > 21
< servlet -closs > Demo fervlet 2 < / servlet -class > servlet
good a pana A day was the Softer vlet - lace
Servlet > griggo (Tiber) 6) - Environg from Lagod
Sugar
8
< servlet-name > Demo fervlets (1)
Demonstra of Central (Iva) parisment (
< Servelet-name > Demo Servet 2 (/servelet-name)
(Wil-portlern) / clemo some lotte is
(wil-portern) / demo servlet two (/ wil-pattern)    / servlet-mapping
(/servlet-mapping)
Complete of them can ovale on demand
tomorphis of must trying her and



How Spring Framework Salves ferrelet Challenges.

- 1) Removal of web-xml
  - \* Spring framework indroduced Annotations based Configurations. @ Gretmapping and @ PostMapping
- 2) Inversion of Control (IOC)
  - \* Loc is a morie flessitle way to manage object dependencies and its life cycle.

We will learn more about this how @ Singleton, @ Request can create on demand beans and inject them. @ Component.

- 3) Unit Desting Is much harder in sorvlet. Bee Mocking any Object is not easy
- u) Difficult to manage REST APIS

La Handling different HTTP methods, request parameters all these become a bit difficult in Sorvlet,

Many other advantages are there like integration,
hibernate { database connections}, security etc

@ Controller
@ Request Mapping ("/paymentapi")
public class Payment Controller {

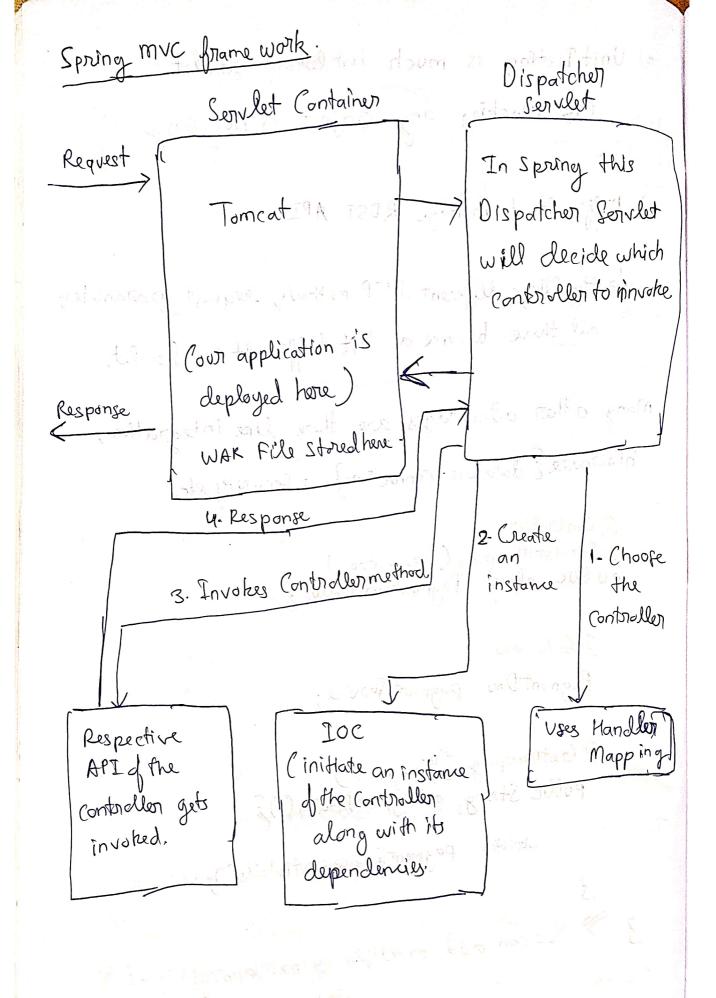
Payment Dao payment Service.

Public String get Payment")
Public String get Payment Defails () 5

return payment service. get leteils ();

y H3 61294

3 You can add multiple @ Grefmappings
@ Postmappings.



lets for how a simple Spring MVC application looks pomizml Controller @Controller [dependencies] @ Request Mapping ("/paymentapi") [ dependency > (groupId) org. Spring pamowork (group) To class Payment Controller & (antifactId) Spring-webmyc C/antifactId) Autowired Payment Dao payment Service; (version) 6-1-4 (version) @ Gefmapping ("/payment) (Adependency) public Storing getPayment Refails () ( dependency) return payment sovice. get Defauls C) (group Id) javas. Servlet (/group Id) <antifacted > Servlet-api </artifacted Config Class (unsion) 2.5 [ version) @ Configuration </dependency It tells @ Enable WebMVc which dependen < dependency> @ Component Scan (base Packages= cgroupId> junit "com-conceptandeding! pullic dass Appanling (antifacted) junit (/antifacted) //add configuration (version) 4.13-2 (version) < (dependency) ( depandencles) Abstract Annotation Config public class My Application Initializer extends Dispatchen Servlet Initial/201.} 6 Orango protected Class <?)[] getRoot (onlig Classes () { this tell which controller sommos) protected String[] getserulat Mappings () { there it loads all. Networn new Strong [] {" /" }

Now lets see what problems does SpringBoot solve which were there in Spring MVC.

(min 2 A) K-13 (migray)

In the previous Page you saw that even for writting a basic application, we need:

- 1. Controller
- 2. pom
- 3. Dispatchen Servert
- 4. Config Classes
- © In pom-xml we saw that will adding a dependency we have to add version as well. Now in future if one want to change the version of any of the dependencies then we have to make some the new version is then we have to make some the new version is compatible with the other version of Spring dependencies of Springs.

Spring Boot solves this problem by removing (Version).

(dependency)

(group Id) ang. Springframework-boot (/group Id)

(group Id) ong. Springframework-boot (/group Id)

(artifact Id) Spring - boot - Starter-web (/artifact Id)

(dependency)

(Automatically latest an and?

(dependency)

(compatible version chosen)

(dependency)

(group Id)

(group Id)

(group Id)

(group Id)

(grouptd/ouig.) pungy windown.

LantifactId) Spring-boot-stanter-test (/antifactId)

(dependency)

(b) Auto Configuration. No need for separately Configuring "Dispatcher Sorvet", "Appronfig", "ComponentScan!" Spring boot adds intermally by default.

@ Spring Boot Application

public class Spring boot Application {

Wherever there is Spring Boot

Inside psum (){

annotation and Main()

Anside Spring Application. Trun (Spring boot Application. Class,

angs);

The All component of

this package will be

@ Component Scan

@ Disportchy Sorulet.

(c) Embedded for ven;

In traditional Spring MVC, we need to build a WAR fly Then we deploy the WAR fille to a Servlet container Called Tompat

In Spring Boot, Sorvet container is already embedded. Just run the application that's all.