		Developed by Rod Johnson in 2003
		Date
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		Spring Faramework Page No.
=	<b>A</b>	Spring is a Vependency Tripection formal to
		Spring is a Dependency Injection foramework to make Java application loosely coupled.
		0
$\Rightarrow$		Powerful lightweight application development
	1	Powerful lightweight application development
=		Makes easy development of Java EE application.
		o many application.
=		Simplicity, Testability and loose coupling.
		ind was coupling.
		Feature of Spring:
		That of spring -
1		$\bigcap_{\alpha}$
4		Open Source
α,		Comprehensive tool
3.		Light cogight
4.		Solver Problems
5.	J. F	namework of framework
6,	1	Avails array of resources.
		0 0 0
		Simplicity
1.	(	Cogies il simple has use il se
,		leses POJO and POJT
		ases roso and poul
3	0/	
<b>)</b> ,	1	a Java class is not coupled with any technology
	01	any framework then that java class is called
	Po	To Plain old java object) The interface in
	no	t complet with one technology or and harden
	Ah	at ious intrology is controlly and any frame work then
	2.0	any framework then that java class is called To (Plain old java object). If a java interface is to coupled with any technology on any framework then out java interface is called POTT (Plain Old Java Interface)

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	Testability
(,	For writing the spring application server [container] is not mondatory because it has its own container to run the application.
2	Spring framework abready have testing byers available cx. Thit already integrated.
	The state of the s
	A STATE OF THE PARTY OF THE PAR
	The state of the s

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	Sparing TOC container	wind a transfer -
4	Creating the object	( M. 11- 1 17 - 7
4	Holding the object in the mer	nogry
4	Injecting one object into another	(Benendancy Triestion)
4	Maintain life sycle of object.	
	and signed of	
4.	a rook of the	ade it is show I
		beans / Paso Classes
Cogin	a Doc container	POSO Classes
	ng Java PoJo	Note:
	and continuation	
	ta P910 duces a Lile /	stion Sparing Container
_	Configured and Motadata	
ego cut	ble system on	
	otion a meta	Final Result
11		Ready to use application
	Spring container will be see	sponsible to constaunt the
	Java objects by parsing the	NOIL THES.
	Types of IOC	containers
		<b>S</b>
	0 0.	Application Content.
	Bean Factory	
*	constructs the object	* Constructs the object every though we don't request for it.
	constructs the object when we request for	though we don't reguest
	it by calling got Bean method	
70		* Build on dop of bean factory interforce. This container adds more enterprise specific function
	Simplest container providing the basic support for	interforce this container adds
	dependency triedien.	more enterprise speake function

7	Application Content
,	> Classpath XML Application Content > Annotation Config Application Content > File System XML Application Content
)	Dependency Injection (DI) is a design pattern
	class Addaress
	class Student Toc &
_	> int id; Storing storest; <
	Address address: Storing state;
	Storing Country;
	Address Sobject
	Student object at automobically at Then time
	Student class depending on Address class.
	The second second

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=>	De	pendency	Injection	Con	be	done	in	2	ways.
		0							

Setter Injection

<

Construction Injection < construction - ang Subeliments of Ebean > is used don construction injection.

- ⇒ Data types (Dependencies)
- 1. Perimitive Data Types: byte, short, chan, int, float, double, long, boolean
- 2. Collection Types: List, Set, Map and Broperties
- 3. Reference Type (User defined): Other class object.
- > Ambiguity Problem and its solution with constructor injection

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->	Life cycle Methods
-	age yell methods
	object created
	Setting Value Properties
	Setting Value Propertil
	init ()
	Then we read and use the bean
	destroy ()
	object destroyed
	Configure technique
	Annotation
	frinit() Spring Interface
	> @ Post Constant
	destroy() = Initializing boon = @ Post Constauct = Of Pre Destroy
	2 (a) Bre lestroy
	after Properties Set ()
	L. Disposable Bean
	J Joseph J J
	destroy ()

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)	Autowing in Spring
*	feature of spring framework in which spring container inject the dependencies automatically.
*	Autowining can't be used to inject primitive and string values. It works with neference only.
	Autorolaing  XML Amotation
default	Autowining Modes  Autowined  on property  on settes  on constructor  by Type  Constructor  uses by Type  Tauto detect deprecated
<del>)</del>	Advantages:- Automatic Less code
ラ コ	Disadvantages:- No control of programmer. It can't be used for primitive and string values.

	Property or above a	ifier can be used above a setternative of Nord not page No.
)	a Qualifier annotation with Auto	wiring =
	@ Autowined @ Ovalifier ("")	
	When we have multiple beans in a we put name of the bean to be picked amnotation.	on-figuration file, then and by using Chalifier
9	Spring Standalone Collections.	
	<util: hoshm<br="" java.util.="" list="" list-closs="java.util. Lin&lt;br&gt;&lt;util: map map-closs = "><util: class="" id="/&gt;&lt;/th&gt;&lt;/tr&gt;&lt;tr&gt;&lt;th&gt;&lt;b&gt;⇒&lt;/b&gt;&lt;/th&gt;&lt;th&gt;Steries type Annotations&lt;/th&gt;&lt;th&gt;,&lt;/th&gt;&lt;/tr&gt;&lt;tr&gt;&lt;th&gt;&lt;/th&gt;&lt;th&gt;@ Component  Class Student  {&lt;/th&gt;&lt;th&gt;@ Component (" ob")="" properties="" student="" th="" }<=""></util:></util:>	
	Student = new Student ();	<b>6</b>
	< content: component-scan base-pack	Page = " "/>
	@ Value (" ")	

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3	
	Standaloro Collection
	@ Value ("# & bemp3") <util: <="" list="" list-class="" private="" string=""> address; = jova.util. Anglid</util:>
	value Delhi ( Value)
	(velue Debrudun value)</th
>	Spring Bean Scope
	s@ingloton
	prototype  nequest & Web application?  Session
	global session - for portlet applications.
Cby def	sult) singleton - Only single object and for
0 1	container and provided to you everytime.
	priototype -> everytime we call spring contriner will
	Create new object of the bean
	Configure bean scope
	XmL Annotation
< bean	Class = " " name = " scope = " "/> @ Component @ Scope (" ")

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				(000)
=	Spains	Expression	Language	(SpEL)

Supposits parsing & executing expressions with the help of ablue annotations.

@ Value ("# & Expression 3")

expression > Classes, Variable, Methods, Constructors & Objects
and symbols

char, numerics, operators, keywords and special
symbols which return a value.

eg. @ Value ("# {11+22}")

@ Value ("# { 8 > 6 ? 88:553")

\* Throking static mothed and variable

T (class). method (param) T (class). Variable

@ Value ("# &T (java. lang. Moth). Sagget (144) 3")
@ Value ("# &T (java. lang. Moth). E)

Boolean type with SpEL

@ Value ("# {8>33")

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^						
Removina	Complete	XML	for	Spring	Con liquisation	

=> Kemoving Complete XML for Spring Configuration.

Application Content content = men Annotation Config Application Content (.class);

@ Configuration

@ Component Scan (base Packages = "

pear

Spring JDBC

Spring JDBC is a powerful mechanism to connect to the database and execute SQL gouries.

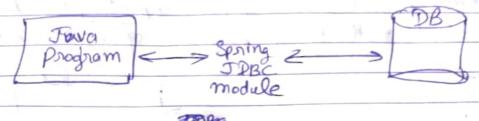


Table Template

JDBC concept

JDBC is API to perform operation with database



> Knowlems of JDBC

We need to write a lot of code

4) Connoction Open, statement, execute, connection close

Exception Hardling Problem: checked Exception

Repeating of all these codes from one to another database logic is a time consuming task.

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Advantage of Spring JDBC \* Solution of JDBC problems are provided by Spring JDBC \* Spring JDBC provide class Jobc Template which has all the impositant methods to perform operation with database Interface class dataSource Octo Source Jobc Template, implements Clare driver Class Name = gunies - fine insert, delete, update, select... Usaname = passiond = Driver Manager Data Source methods :-Idbe Template update () > insert, update, delete execute () -> Select goveries