

## 1. Intent

To list down following offerings

- 1. Type and Specifics of Courses conducted by V2 Technologies
- 2. Key Goals and the target audience for above

## 2. Type of Courses (Java based)

N	Course Name	Course Goals	Target	Course
0			audience	Duration
1	Expert Programmer	<ul> <li>Develop proficiency in Core Concepts, Data Structures, Web</li> </ul>	Experience Software	1 week
		<ul><li>Concepts, Threading, Collections</li><li>Develop ability to understand and</li></ul>	Programmers (~1-3 years	Or
		apply Design Patterns and importantly separate implementation from abstraction	exp)	3 weeks(in case of Fresher's)
		Analyse abstract Requirements and model them into technical		
		<ul><li>specifications</li><li>Translate technical specifications</li></ul>		
		into minimal code and re-usable components		
		<ul> <li>Respect Non-functional Requirements (Real life exercises)</li> </ul>		
		Develop Sound Developer Ethic,		
		Write 'good' test cases > 98%		
		coverage, document well (for others to understand) and evolve ability for		
		thinking on do-ability before		
		committing on estimates		
2	Smart Designer	Understand OO Concepts/GRASP —  With oversions on Polymorphism	Experience Software	1 week
		With exercises on Polymorphism, Low Coupling, Indirection and GRASP	Programmers	
		patterns	(~3-5 years	
		Understand Design Principles and	exp)	
		SOLID concepts with applicability in mind		
		Learn and apply Core/Enterprise		
		Design Patterns – Understand differentiation of intent and		
		participate in real life scenario		
		exercises		
		Domain Driven Design – Understand		
		the importance of putting focus on		
		identifying core entities and		
		relationship amongst them  • Design for NFRs		
L		- DC3IEII IOI IVI IV3		



		<ul> <li>Complete Design and Implementation of a Real life Scenario</li> </ul>		
3.	Power Architect	<ul> <li>Identify responsibilities of the Architect in all the phases of SDLC</li> <li>Pure Technology Architecture training on basic concepts— <ul> <li>a. Data Modelling</li> <li>b. Web services – REST vs SOAP, Web Services Security</li> <li>c. Web and Application Security</li> <li>d. Design Patterns</li> <li>e. Basic Ul Concepts</li> <li>f. Basic Algorithms</li> <li>g. Protocols</li> <li>h. Messaging</li> <li>i. Legacy Integration</li> </ul> </li> <li>Focus on advanced concepts – <ul> <li>a. Key-Value Store</li> <li>b. Doc based Store</li> <li>c. Column based Store</li> <li>d. Graph based Store</li> <li>e. Document Management System</li> <li>f. Understanding NFR's</li> <li>g. SSO/oAuth Integration with third party providers</li> <li>h. OLAP vs OLTP</li> <li>i. Reporting Implementation</li> <li>j. Search Technologies</li> <li>k. Rule Engines, Integration and Orchestration Framework</li> <li>l. Awareness of Client Native Platforms</li> <li>m. Clustering</li> <li>n. Performance Tuning</li> <li>Understand Layered/Event Driven/Micro Kernel/Micro Services/Space based Architecture Strategies</li> <li>Develop Ability to translate critical business requirements into platform use cases</li> <li>Develop ability to make sense of minimal input</li> <li>Design for NFR's</li> </ul> </li> </ul>	Experienced Software Programmers (~>5 years)	1 week
4	Comprehensive Product Engineer	<ul> <li>eXpert Programmer Goals</li> <li>sMart Designer Goals</li> <li>Real Life Project covering all aspects of SDLC till deployment</li> </ul>	Experience Software Engineers (~2 to 4 years) (Best of lot)	3 weeks



5	Design Patterns	1.Understand -  a. Core Design Patterns b. Creational c. Structural d. Behavioral e. Real Life Scenarios – Exercise 2.Understand OO Concepts/GRASP – With exercises on Polymorphism, Low Coupling, Indirection and GRASP patterns 3.Understand Design Principles and SOLID concepts with applicability in mind 4.Anti Patterns	Experienced Software Programmers (~2-4 years) Or Fresher's who are Java aware	1 week
6	Performance Training	<ul> <li>Understanding JVM Memory areas</li> <li>Understanding Heap</li> <li>Garbage Collection Strategies</li> <li>Object Lifecycle</li> <li>Monitoring Garbage Collection</li> <li>Tools for Garbage Collection</li> <li>Tools to find Latency</li> <li>Threading and Concurrency</li> <li>Thread Profiling</li> <li>Memory Profiling</li> <li>Thread and Heap Dump Analysis</li> <li>Performance Benchmarking</li> <li>Getting Big Gains First</li> <li>Load, Stress and Endurance Testing</li> </ul>	Experienced Programmers (~2-4 years)  Or Fresher's who are Java aware	~2 days
7	Clean Code And Refactoring	<ul> <li>What is Clean Code</li> <li>Clean Code Checklist</li> <li>Too much Information</li> <li>InObvious Connection</li> <li>Prefer Unchecked Exceptions</li> <li>Generics &amp; Benefits</li> <li>Refactoring Goals</li> <li>How to Approach</li> <li>Commonly Used Refactoring Techniques</li> <li>Class Design Principles</li> </ul>	Experienced Programmers (~1 - 3 years)  Or Fresher's who are Java aware	4 hours
8	Enterprise Java	<ul> <li>Spring <ul> <li>a. Spring Web</li> <li>b. Spring Data Access</li> <li>c. Spring Integration</li> <li>d. AOP</li> <li>e. DI &amp; IOC</li> <li>f. Beans, Core, SpEL &amp; Context</li> <li>g. Spring Testing</li> </ul> </li> <li>JPA</li> <li>Hibernate <ul> <li>a. Benefits</li> </ul> </li> </ul>	Experienced Software Programmers (~2-4 years) Or Fresher's who are Java aware	~4 days



	b. Ar	chitecture
	c. Co	ollections & Association
	d. Ve	ersion Support
	e. Qı	ueries, HQL & Criteria
	f. Se	et up Spring Hibernate
	ln:	tegration
	• Hiberr	nate Search
	a. Us	sing Luke
	b. Lu	icene Concepts
	• Transa	action Management
	a. Jt	A & 2 phase Commits
	• SOLR	
	• Maver	n
	• Jenkin	
	• Exerci	
	LACIO!	
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## 3. Extra Information

- Courses can be conducted at companies premises
- Courses can be conducted at our premises provides there is a sufficient batch size
- Flexible to accommodate changes to the course content
- Provide objective pre-assessment and Post-assessment metrics to measure the gains from the training