

	Frameworks	Hibernate and Spring		<p>Sample Project using Spring</p> <p><a href="http://www.javacodegeeks.com/2010/06/spring-3-restful-web-services.html">http://www.javacodegeeks.com/2010/06/spring-3-restful-web-services.html</a></p> <p><a href="http://docs.spring.io/spring/docs/current/spring-framework-reference/html/spring-web.html">http://docs.spring.io/spring/docs/current/spring-framework-reference/html/spring-web.html</a></p> <p><a href="http://www.infoq.com/springmvc/presentations/">http://www.infoq.com/springmvc/presentations/</a></p> <p><a href="https://dzone.com/tutorials/java/spring/spring-mvc-tutorial-1.html">https://dzone.com/tutorials/java/spring/spring-mvc-tutorial-1.html</a></p> <p><a href="http://www.springbyexample.org/examples/">http://www.springbyexample.org/examples/</a></p>
		SpringMVC		<p>Reading Links for Mock:</p> <p><a href="http://www.methodsandtools.com/archive/archive.php?id=122">http://www.methodsandtools.com/archive/archive.php?id=122</a></p> <p><a href="http://stackoverflow.com/questions/38181/when-should-i-mock">http://stackoverflow.com/questions/38181/when-should-i-mock</a></p> <p><a href="http://abhinandanmk.blogspot.in/2012/06/mockit-tutoriallearn-it-today-with.html">http://abhinandanmk.blogspot.in/2012/06/mockit-tutoriallearn-it-today-with.html</a></p> <p><a href="http://jmockit.org/tutorial.html">http://jmockit.org/tutorial.html</a></p> <p>Do's and Don'ts</p> <p><a href="http://www.exubero.com/junit/antipatterns.html">http://www.exubero.com/junit/antipatterns.html</a></p> <p>Sample Application</p> <p><a href="https://gitlab.tavant.com/unitest-trg/ordrmgmt">https://gitlab.tavant.com/unitest-trg/ordrmgmt</a></p>
	DB	Normalized DB design		<p>Free online course by Standford University (by Prof. Jennifer Widom) – <a href="https://lagunita.stanford.edu/courses/DB/RD/SeITPaced/courseware/ch-relational_design_theory/seq-vid-relational_design_overview/">https://lagunita.stanford.edu/courses/DB/RD/SeITPaced/courseware/ch-relational_design_theory/seq-vid-relational_design_overview/</a> (Please register to the course to enable tracking of progress &amp; to be able to get a statement/letter of accomplishment. Note: Participants need to complete all quizzes &amp; assignments in order to get a final score and letter of accomplishment.)</p> <p>Videos of Prof. Jennifer Widom on YouTube:</p> <p>Relational Design Theory: Overview – <a href="https://www.youtube.com/watch?v=BDDmMOK8PDE&amp;list=PLCV8PlnXJ9x6LAuqPXgXZNSeHznXQ3b3l&amp;index=20">https://www.youtube.com/watch?v=BDDmMOK8PDE&amp;list=PLCV8PlnXJ9x6LAuqPXgXZNSeHznXQ3b3l&amp;index=20</a></p> <p>Relational Design Theory: Functional Dependencies – <a href="https://www.youtube.com/watch?v=uDVGa53VU8s&amp;list=PLCV8PlnXJ9x6LAuqPXgXZNSeHznXQ3b3l&amp;index=21">https://www.youtube.com/watch?v=uDVGa53VU8s&amp;list=PLCV8PlnXJ9x6LAuqPXgXZNSeHznXQ3b3l&amp;index=21</a></p> <p>Relational Design Theory: Boyce-Codd Normal Form (BCNF) – <a href="https://www.youtube.com/watch?v=R1UVQmckoo&amp;index=22&amp;list=PLCV8PlnXJ9x6LAuqPXgXZNSeHznXQ3b3l">https://www.youtube.com/watch?v=R1UVQmckoo&amp;index=22&amp;list=PLCV8PlnXJ9x6LAuqPXgXZNSeHznXQ3b3l</a></p> <p>Relational Design Theory: Multivalued Dependencies &amp; 4th Normal Form – <a href="https://www.youtube.com/watch?v=18x3kUhYDQk&amp;list=PLCV8PlnXJ9x6LAuqPXgXZNSeHznXQ3b3l&amp;index=23">https://www.youtube.com/watch?v=18x3kUhYDQk&amp;list=PLCV8PlnXJ9x6LAuqPXgXZNSeHznXQ3b3l&amp;index=23</a></p> <p>Some alternative links for reading:</p> <p><a href="http://www.studytonight.com/dbms/database-normalization.php">http://www.studytonight.com/dbms/database-normalization.php</a></p> <p><a href="http://www.phlonx.com/resources/nf3/">http://www.phlonx.com/resources/nf3/</a></p> <p><a href="http://www.1keydata.com/database-normalization/first-normal-form-1nf.php">http://www.1keydata.com/database-normalization/first-normal-form-1nf.php</a></p> <p><a href="http://www.1keydata.com/database-normalization/second-normal-form-2nf.php">http://www.1keydata.com/database-normalization/second-normal-form-2nf.php</a></p> <p><a href="http://www.1keydata.com/database-normalization/third-normal-form-3nf.php">http://www.1keydata.com/database-normalization/third-normal-form-3nf.php</a></p>
	Server side	REST based web services		<p>Full Text on REST</p> <p><a href="https://s3.amazonaws.com/tfpearsoncollege/bestpractices/RESTful+Best+Practices.pdf">https://s3.amazonaws.com/tfpearsoncollege/bestpractices/RESTful+Best+Practices.pdf</a></p> <p>Training Video</p> <p><a href="https://www.youtube.com/watch?v=AK6TulIASgQ&amp;list=PLqQ-6Pq4ITTZh5U8RbdXq0WaYvZb2rnb&amp;index=5">https://www.youtube.com/watch?v=AK6TulIASgQ&amp;list=PLqQ-6Pq4ITTZh5U8RbdXq0WaYvZb2rnb&amp;index=5</a></p> <p>Training Video</p> <p>Blog on Best practices</p> <p><a href="http://www.vinaysahni.com/best-practices-for-a-pragmatic-restful-api#restful">http://www.vinaysahni.com/best-practices-for-a-pragmatic-restful-api#restful</a></p>
		Basics of Javascript		<p><a href="http://www.w3schools.com/js/default.asp">http://www.w3schools.com/js/default.asp</a></p> <p><a href="https://learn.jquery.com/">https://learn.jquery.com/</a></p> <p><a href="http://jqfundamentals.com/chapter/jquery-basics">http://jqfundamentals.com/chapter/jquery-basics</a></p> <p><a href="http://www.w3schools.com/jquery/">http://www.w3schools.com/jquery/</a></p> <p><a href="http://www.tutorialspoint.com/jquery/">http://www.tutorialspoint.com/jquery/</a></p> <p><a href="https://www.youtube.com/watch?v=hMxGhHNOkCU">https://www.youtube.com/watch?v=hMxGhHNOkCU</a></p> <p><a href="http://jqexercise.droppages.com/">http://jqexercise.droppages.com/</a></p> <p><a href="http://stackoverflow.com/questions/3631039/design-patterns-used-in-the-jquery-library">http://stackoverflow.com/questions/3631039/design-patterns-used-in-the-jquery-library</a></p>
	Client Side	JQuery		<p><a href="https://en.wikipedia.org/wiki/AngularJS">https://en.wikipedia.org/wiki/AngularJS</a></p> <p><a href="https://angularjs.org/">https://angularjs.org/</a></p> <p><a href="https://docs.angularjs.org/tutorial">https://docs.angularjs.org/tutorial</a></p> <p><a href="http://www.w3schools.com/angular/">http://www.w3schools.com/angular/</a></p> <p><a href="http://campus.codeschool.com/courses/shaping-up-with-angular-js/intro">http://campus.codeschool.com/courses/shaping-up-with-angular-js/intro</a></p> <p><a href="https://docs.angularjs.org/api">https://docs.angularjs.org/api</a></p> <p><a href="https://egghead.io/lessons/angularjs-understanding-isolate-scope">https://egghead.io/lessons/angularjs-understanding-isolate-scope</a></p> <p><a href="https://github.com/johnpapa/angular-styleguide#modules">https://github.com/johnpapa/angular-styleguide#modules</a></p> <p><a href="https://github.com/mgechev/angularjs-in-patterns">https://github.com/mgechev/angularjs-in-patterns</a></p>
		Angular JS		<p><a href="https://facebook.github.io/react/docs/tutorial.html">https://facebook.github.io/react/docs/tutorial.html</a></p> <p><a href="https://egghead.io/series/getting-started-with-redux">https://egghead.io/series/getting-started-with-redux</a></p> <p><a href="https://facebook.github.io/immutable-js/docs/#/">https://facebook.github.io/immutable-js/docs/#/</a></p> <p><a href="http://teropa.info/blog/2015/09/10/full-stack-redux-tutorial.html">http://teropa.info/blog/2015/09/10/full-stack-redux-tutorial.html</a></p> <p><a href="https://facebook.github.io/react/docs/advanced-performance.html">https://facebook.github.io/react/docs/advanced-performance.html</a></p>
		ReactJS		<p>Exercises:</p> <p>demo1 - change the text to reflect your name!</p> <p>demo2 - change the list of names to indicate members of your team.</p> <p>demo3 - add a horizontal line between the two elements of the list and change the font size.</p> <p>demo4 - There is a div element called "address". You need to give your name followed by your home address, and also format the text.</p> <p>demo5 - We have a list of 5 items in our shopping list. Modify the example given to reflect these with bullet points.</p> <p>demo6 - Modify the code such that if we give a string instead of a number, an error message should be displayed.</p> <p>demo7 - Modify the code such that by default focus should be on the text box. When you click on the button, focus should be removed from the text box.</p> <p>demo8 - Modify the code so that when he clicks the first time, the message should change to "You like this". Any further click should not change the text.</p> <p>demo9 - Modify the code so that a new line is added for every 30 characters of input text.</p> <p>demo10- The stock prices of 5 major companies is displayed as a list. The previous days prices are also displayed. The rate of flickering of the stock price should be directly proportional to the difference between today's price and the previous days price.</p> <p>demo11- We have a list of inventory items. If I click on an item it should display the price and other details of the product.</p> <p>demo12- We have a list of inventory items. If I click on an item it should display the text as "loading..." and once the details have been received, it should display the price and other details of the product.</p>
		Client side performance factors - basic understanding		<p><a href="http://browserdiet.com/en/#performance-matters">http://browserdiet.com/en/#performance-matters</a></p>
Java	Design Basics	gonality and Rever		<p><a href="http://www.javaworld.com/article/2078767/open-source-tools/java-tip-orthogonality-by-example.html">http://www.javaworld.com/article/2078767/open-source-tools/java-tip-orthogonality-by-example.html</a></p> <p><a href="http://www.jasoncoffin.com/cohesion-and-coupling-principles-of-orthogonal-object-oriented-programming/">http://www.jasoncoffin.com/cohesion-and-coupling-principles-of-orthogonal-object-oriented-programming/</a></p> <p>Reversibility - <a href="http://www.bon-method.com/computer_annotated.pdf">http://www.bon-method.com/computer_annotated.pdf</a></p>

Software Engineering		OO Concepts	OO Concepts & Programming <a href="http://teknadesigns.com/what-is-object-oriented-programming/">http://teknadesigns.com/what-is-object-oriented-programming/</a> Removed - since we feel this would be too much at this level.
	Design Paradigms	Functional Programming	
		OO Design	Introduction <a href="http://www.codeproject.com/Articles/93369/How-I-explained-OOD-to-my-wife">http://www.codeproject.com/Articles/93369/How-I-explained-OOD-to-my-wife</a> In Detail on SOLID principles <a href="http://williamdurand.fr/2013/07/30/from-stupid-to-solid-code/">http://williamdurand.fr/2013/07/30/from-stupid-to-solid-code/</a> <a href="http://www.codemag.com/article/1001061">http://www.codemag.com/article/1001061</a> Head First Object-Oriented Analysis and Design - Recommended Book.
		Aspect Oriented Design	<a href="http://aosd.net/2007/program/industry/I6-AspectDesignPrinciples.pdf">http://aosd.net/2007/program/industry/I6-AspectDesignPrinciples.pdf</a> <a href="http://portal.ou.nl/documents/114964/2986739/T07351_01.pdf">http://portal.ou.nl/documents/114964/2986739/T07351_01.pdf</a> <a href="http://www.ccs.neu.edu/home/lieber/com3205/f02/lectures/aosd.ppt">http://www.ccs.neu.edu/home/lieber/com3205/f02/lectures/aosd.ppt</a> <a href="http://www.javacodegeeks.com/2011/01/aspect-oriented-programming-spring-aop.html">http://www.javacodegeeks.com/2011/01/aspect-oriented-programming-spring-aop.html</a> <a href="http://www.springframework.net/doc/reference/html/aop.html">http://www.springframework.net/doc/reference/html/aop.html</a>
	Design Principles	SRP (Single Responsibility Principle)	SOLID Object oriented design - <a href="https://en.wikipedia.org/wiki/SOLID_%28object-oriented_design%29">https://en.wikipedia.org/wiki/SOLID_%28object-oriented_design%29</a> Robert C. Martin's paper (SRP) - <a href="https://docs.google.com/file/d/0ByOwmqah_nuGNHETcU5OekdDMkk/edit">https://docs.google.com/file/d/0ByOwmqah_nuGNHETcU5OekdDMkk/edit</a> Example (uses c# though) - <a href="http://www.codeproject.com/Articles/611593/SOLID-Principles-Single-Respons">http://www.codeproject.com/Articles/611593/SOLID-Principles-Single-Respons</a> Dzone article - <a href="https://dzone.com/articles/single-responsibility">https://dzone.com/articles/single-responsibility</a> For more examples and scenario refer to stack overflow questions
	OCP (Open Closed Principle)		Please see in the link above under "SOLID Object Oriented Design"
		Design Heuristics	Object-Oriented Design Heuristics - Arthur J. Riel ( <a href="http://marchoeijmans.blogspot.in/2012/06/arthur-j-riel-design-heuristics.html">http://marchoeijmans.blogspot.in/2012/06/arthur-j-riel-design-heuristics.html</a> ) <a href="http://www8.cs.umu.se/education/examina/Rapporter/BasharMolla.pdf">http://www8.cs.umu.se/education/examina/Rapporter/BasharMolla.pdf</a> Heuristics for Object-Oriented Design by Cleveland Augustine Gibbon - <a href="http://www.cs.nott.ac.uk/~pszcag/pdf/cag-phd.pdf">http://www.cs.nott.ac.uk/~pszcag/pdf/cag-phd.pdf</a>
		Domain Modeling	<a href="https://en.wikipedia.org/wiki/Domain_model">https://en.wikipedia.org/wiki/Domain_model</a> <a href="http://www.scaledagileframework.com/domain-modeling/">http://www.scaledagileframework.com/domain-modeling/</a> <a href="http://www.javaworld.com/article/2078042/java-app-dev/domain-driven-design-with-java-ee-6.html">http://www.javaworld.com/article/2078042/java-app-dev/domain-driven-design-with-java-ee-6.html</a> <a href="http://www.petrikainulainen.net/software-development/design/thefive-characteristics-of-a-good-domain-model/">http://www.petrikainulainen.net/software-development/design/thefive-characteristics-of-a-good-domain-model/</a> <a href="http://martinfowler.com/eaCatalog/domainModel.html">http://martinfowler.com/eaCatalog/domainModel.html</a>
	Design Patterns	Where and how patterns should be used	Reference - <a href="http://code.tutsplus.com/articles/a-beginners-guide-to-design-patterns--net-12752">http://code.tutsplus.com/articles/a-beginners-guide-to-design-patterns--net-12752</a> <a href="http://www.dofactory.com/net/design-patterns">http://www.dofactory.com/net/design-patterns</a> Javascript Design Pattern - <a href="http://stackoverflow.com/questions/3631039/design-patterns-used-in-the-jquery-library">http://stackoverflow.com/questions/3631039/design-patterns-used-in-the-jquery-library</a> Anti-Pattern Reference - <a href="https://sourcemaking.com/antipatterns/software-development-antipatterns">https://sourcemaking.com/antipatterns/software-development-antipatterns</a>
	Deployment	Basics of Deployment	Tomcat: ----- <a href="http://tomcat.apache.org/tomcat-7.0-doc/index.html">http://tomcat.apache.org/tomcat-7.0-doc/index.html</a> <a href="http://tomcat.apache.org/tomcat-8.0-doc/index.html">http://tomcat.apache.org/tomcat-8.0-doc/index.html</a> <a href="https://tomcat.apache.org/tomcat-7.0-doc/windows-service-howto.html">https://tomcat.apache.org/tomcat-7.0-doc/windows-service-howto.html</a> <a href="https://tomcat.apache.org/tomcat-8.0-doc/windows-service-howto.html">https://tomcat.apache.org/tomcat-8.0-doc/windows-service-howto.html</a>  Apache: ----- <a href="http://httpd.apache.org/docs/2.0/misc/tutorials.html">http://httpd.apache.org/docs/2.0/misc/tutorials.html</a> <a href="https://httpd.apache.org/docs/2.0/platform/windows.html">https://httpd.apache.org/docs/2.0/platform/windows.html</a>  Release management: ----- <a href="https://dzone.com/articles/best-practices-build-and">https://dzone.com/articles/best-practices-build-and</a> <a href="http://www.plutora.com/insights/2013/release-management-best-practices/">http://www.plutora.com/insights/2013/release-management-best-practices/</a>