

## Test Driven Development using JUNIT

### Workshop Details:

<b>Duration:</b>	1 Days
<b>Objective:</b>	<p>Key skills you will gain upon completion of this program include:</p> <ul style="list-style-type: none"> <li>▪ New approach of development- Test Driven Development</li> <li>▪ TDD through extreme Programming</li> <li>▪ Different tools to do testing while development</li> <li>▪ Insight of JUnit</li> <li>▪ TDD using JUnit</li> <li>▪ Different MOCK frameworks</li> <li>▪ Using EasyMock for TDD</li> </ul>
<b>Participants' Entry Profile:</b>	The participants need not have good prior exposure to Java programming language, JDBC etc.
<b>Training Methodology:</b>	<p>The workshop will follow Synergetics methodology of Concept Visualization, Active Experimentation</p> <p>Trainer will balance concepts delivery and hands-on as per availability of time.</p>

### Setup Requirements

<b>Hardware and Software Requirements:</b>	<p>Participant's as well as Trainer's Machine are required to have :</p> <p><b>Hardware</b></p> <ul style="list-style-type: none"> <li>▪ Intel Core i3 2.2 GHz</li> <li>▪ CD Rom Drive</li> <li>▪ 80 GB HDD</li> <li>▪ LCD Color Monitor</li> <li>▪ 2 GB RAM</li> <li>▪ LAN Connectivity</li> </ul> <p><b>Software</b></p> <ul style="list-style-type: none"> <li>▪ Windows XP or 7</li> <li>▪ Internet Explorer 8 or above/Chrome/Firefox</li> <li>▪ Java SDK 1.7.x</li> <li>▪ JDBC Driver for Oracle (ojdbc6.jar)</li> <li>▪ Oracle 10g</li> <li>▪ Eclipse 3.7 Onwards</li> <li>▪ MS Office 2007 onwards</li> </ul>
<b>Training Lab Requirements:</b>	<p>Whiteboard 6 feet by 4 feet (minimum)</p> <p>Whiteboard markers – Red, Blue, Green, Black</p> <p>Video Projector (1024 X 768 resolutions)</p>

## Pre-requisite

<b>JUnit</b>	<ul style="list-style-type: none"> <li>• <b>The participants need not have good prior exposure to Java programming language, JDBC etc.</b></li> </ul>
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## Course Content

<b>Day 1</b>	<ul style="list-style-type: none"> <li>➤ <b>Getting started</b> <ul style="list-style-type: none"> <li>▪ What is Test Driven Development? Why?</li> <li>▪ Test Driven Development Vs. Traditional development</li> <li>▪ Test First Development</li> <li>▪ TDD in Extreme Programming</li> <li>▪ Different tools and support for Test Driven Development</li> </ul> </li> <li>➤ <b>Understanding and using JUnit for TDD</b> <ul style="list-style-type: none"> <li>▪ Introduction to JUnit</li> <li>▪ JUnit in Eclipse</li> <li>▪ JUnit life cycle and JUnit 4 Annotations</li> <li>▪ Fixtures and Test cases</li> <li>▪ JUnit API, Assertions and writing tests</li> <li>▪ Different types of tests               <ul style="list-style-type: none"> <li>○ Testing Exception Handling</li> <li>○ Testing Timeout etc.</li> </ul> </li> <li>▪ Using JUnit for Test Driven Development in real life example</li> <li>▪ Designing Test suits</li> <li>▪ Test runners</li> <li>▪ Why Mock Objects?</li> </ul> </li> <li>➤ <b>Understanding and using EasyMock</b> <ul style="list-style-type: none"> <li>▪ Introduction to EasyMock and object life cycle</li> <li>▪ Types of Mock objects</li> <li>▪ Mocking the behaviour</li> </ul> </li> </ul>
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