A GENERAL FLOW OF THE PROGRAM

On

TEST DRIVEN DEVELOPMENT

Overview

In this course, participants learn how to write bug-free and reliable applications using Test Driven Development. This hands-on course brings together a variety of techniques, strategies and patterns of Test Driven Development. You will learn how to start applying the Test Driven Development on your project identifying the tests from requirements and then applying the heartbeat of test-code-refactor steps. The course will practically introduce refactoring that leads to better and reliable designs and code and also introduce a number of testing patterns and strategies.

Objectives

Outcomes of the training:

- Apply Test Driven Development
- Identify tests
- Organize and execute tests leading to clear designs and reliable code
- Recognize "bad smells" and refactor code and tests
- Get the maximum value out of the Eclipse for Test Driven Development

Suggested Audience

- Java Developers /designers / architects

Duration - **2** Days

Prerequisites

Attendees must be proficient in Java

Syllabus

1. Key Ideas of Test Driven Development

- Why Test Driven Development?
- Automating Tests
- Fundamentals of Test-First Approach
- The Process
- The Heartbeat: Test-Code-Refactor

2. Tools of the Trade: JUnit

- Writing Tests with JUnit
- Test Cases

- Assertions
- Set-up and Tear-Down
- Test Suites
- Organizing Tests
- Reporting Results
- Eclipse and JUnit
- Ant and Junit

3. Test Driven Development

- The Starting Point: Requirements
- Creating Tests from Requirements
- Selecting the First Test
- Failing the Test
- Passing the test
- The 'Next' Test
- Refactorings: Changing the Design in Small Steps
- Introducing Error Handling
- Improving the Test Driven Development Cycles

4. Patterns and Strategies for Test Driven Development

- Creating Tests from Requirements
- Selecting the First Test
- Failing the Test
- Passing the test
- The 'Next' Test
- Refactorings: Changing the Design in Small Steps
- Introducing Error Handling
- Improving the Test Driven Development Cycles

5. Applying Refactorings

- Code Smells
- Migrate Data
- Extract Method
- Inline Method
- Extract Interface
- Move Method
- Method Object

- Add Parameter
- Method Parameter to Constructor Parameter
- Refactoring using Eclipse

6. Testing Database Applications

- Unit Testing Database
- Creating Database Tests
- Database Testing Patterns

7. Testing Server Side Applications - Overview

- Testing the Server Side
- Testing Web Applications
- Testing EJB Applications

Fee: INR 40K for an in-house program (Per day commercials)

For outstation trainer, travel and stay expense would be borne by the client.

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