

## Clean Code

 Duration: 3 Days

 Available Languages: English German

### Audience

Software Crafter: Software Developers, Architects, Project Managers, Scrum Masters.

### Precondition

Good knowledge of an object-oriented programming language like Java.

### Goals

Learn how to develop software using the Clean Code principles.

### Contents

- The two values of Software
- Design Smells: Rigidity, Fragility, Immobility, Viscosity
- Programming Paradigms
  - Structured Programming
  - Object-Oriented Programming, Polymorphism
  - Functional Programming
  - Logic Programming
- Craft Culture, Professionalism, and Clean Code
- Fundamentals: Comments, Meaningful Names, Clean Functions and Classes, Source Code Structure, Code Style, Formatting
- Error Handling
- Core Architecture: Coupling and Cohesion, Vertical (Domain) vs Horizontal (Technical) Software Architecture
- TDD – Test-Driven Development
  - What's a Unit Test?
  - Black Box vs Grey Box vs White Box
  - The Three Laws of TDD
  - Red-Green-Refactor Cycle
  - TPP
  - The 4 A's
  - Single Assert Rule
  - ATDD
  - Ping Pong
- BDD – Behavior Driven Development
  - Gherkin
  - The 4 A's in Gherkin
  - Relationship between BDD and the Agile SDLC
- The Test Pyramid, layers of tests

# NELKINDA SOFTWARE CRAFT



- The Clean SDLC: Agile, Scrum, XP, CI/CD, DevOps
- Continuous All The Things
  - Testing
  - Refactoring
  - Design Improvement
  - Integration
  - Release
  - Delivery
  - Deployment
  - The DevOps Pyramid
- The SOLID and Package Principles: 11 Principles of Clean Architecture
  - SRP, OCP, LSP, ISP, DIP
  - Package Principles and Package Metrics
- Design Patterns in the light of Clean Code
  - Creational Patterns
  - Structural Patterns
  - Behavioral Patterns
- Some Pragmatic Tips

The training can be offered in all major programming languages. For corporate training, please contact us in advance for planning the training to meet needs and environment of your development teams.

## Booking

Contact Siddhesh Nikude, +91-95-52572354, [training@nelkinda.com](mailto:training@nelkinda.com)