

CoreDP

# Core Design Patterns Course







## **Core Design Patterns Course**

CoreDP - Version: 1



#### **Description:**

This is code level, best practices - design course. The purpose of the course is to teach developers best practices to design and code common developers\designers problems. Design Patterns are solutions to recurring problems in a given context.

- •Patterns bring together and document the core solution to a given problem that occur during software development
- Patterns are language-independent solutions
- •Patterns are convenient ways of reusing OO code between projects and programmers.

  The course covers 23 design patterns defined in the "Design Patterns Bible GoF" "Design Patterns, Elements of Reusable Software," Gamma, Helm, Johnson & Vlissides (Gang of Four)

Course lecture 60% of time, exercise – 40%

Course Examples are in Java/Python, course labs and solutions are in Java and C# and Python

#### Intended audience:

#### **Prerequisites:**

Developers with experience in: c-sharp, java and python

#### **Objectives:**

#### **Topics:**



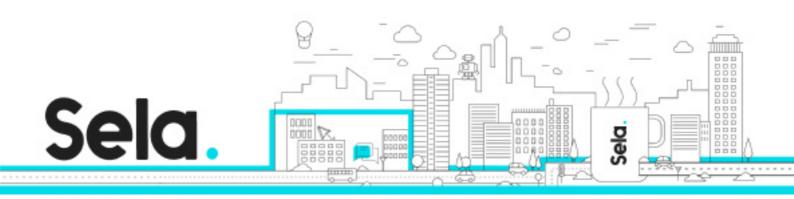
### Module 1 – OOD Principles

- UML introduction
- The Open-Closed Principle OCP
- Dependency Inversion Principle DIP
- Interface Segregation Principle ISP
- Single Responsibility Principle SRP
- Liskov's Substitution principle

º Module 2 − Introduction to Design Patterns

<sup>⁰</sup> Module 3 – Creational Design Patterns

º Module 4 − Structural Design Patterns



º Module 5 − Behavioral Design Patterns