Applying UML, Object Oriented Programming & Design Patterns

Level: advanced

Length: 21 - 35 hours, depending on the project' size

Course Objective: apply in a practical project all the knowledge and skills related to UML, OOP & design patterns

What You Will Learn

- How to apply OOP principles in a larger project
- How to apply design patterns in projects
- How to use UML in every stage of software development
- How to integrate all these elements in during development

Who Can Participate: programmers who have studied OOP, UML & Design Patterns and want to see how to apply them in a "real" project

Prerequisites

- Knowledge of an object oriented programming language (Java, C++, C#, Python, etc.) at least at a medium level
- Familiar with a set of general design patterns and patterns particular to the project's domain
- Knowledge of UML

Required Infrastructure: VGA projector, whiteboard, personal calculator with a software development environment for the chosen language – C++, Java, C#, Python, etc.

Related Courses: Unified Modeling Language 2, Design Patterns, Object Oriented Programming, particular courses related to the chosen language – Java, C++, C#, Python, etc.

Description

This course continues the course of Object Oriented Programming, the goal is to apply all the theoretical aspects to a practical problem by using a process for software development.

We shall perform the standard phases in software development: requirements, requirements analysis (OOA), design (OOD) & implementation using all OOP paradigm.

The practical project is defined together with the customer in order to benefit of its domain expertise.

Contents

1. Introduction to software development processes
2. Requirements analysis and design activities in OOP
3. Development of a particular project