BUILDING COMPOSITE APPLICATIONS WITH MVVM, PRISM AND MEF

COURSE OVERVIEW

This course discusses best practices in building composite, modular applications that are scalable and easy to maintain. We set up the basics of the MVVM pattern, why it is important in the world of Silverlight and WPF and we go through the various frameworks from Microsoft that help us build such applications.

MAIN GOALS

- Learn to build modular applications
- Understand MVVM
- Learn what Prism is
- Learn what MEF is
- Learn how to apply MVVM, Prism and MEF

TARGET AUDIENCE

Developers, with good understanding of Silverlight platform, who want to learn how to build modular Line-of-Business applications.

OUTLINE

COMPOSITE APPPLICATIONS OVEVIEW

- What are composite applications?
- When to choose the composite approach?
- Why we need Prism or MEF?

MVVM (MODEL-VIEW-VIEWMODEL)

- The ViewModel
- Commands
- DelegateCommand
- The View
- The Model
- Triggers and Behaviors

PRISM

- Prism Overview
- Design Concepts
  - UI Composition – View Discovery, View Injection, Eventing
  - Modularity
  - Container
  - Multi-targeting
- Technical Concepts
  - Bootstrapper
  - Container and services
  - Module – App lifecycle, Loading, ModuleCatalog
  - Shell and View - Regions
  - Event Aggregator – threads, filtering
- Hands-on lab – **Build a Prism Application** – utilizing Shell, Regions, Bootstrapper, Modules, Commanding, Event Aggregation

MEF

- MEF Overview
- Design Concepts
  - Parts and Contracts
  - Composition and Recomposition
- Technical Concepts
  - Import
  - Export
  - Metadata
  - Catalog
  - Container
- Hands-on lab – **Build a MEF application** – utilizing Imports, Exports, Metadata, Catalogs

STUDENT PREREQUISITES

Required

- Working knowledge in C# 3.0 or later
- Familiarity with Visual Studio
- Working knowledge in Silverlight – XAML, Data Binding

COURSE DETAILS

The course is based on latest version of the technologies and tools – Silverlight 4 and Visual Studio 2010.

Materials – All students receive electronic course manual and lab source code.

Duration - 3 days (12 hours)