

Deccansoft Software Services

(A Microsoft Learning Partner)

WPF+MVVM+Prism

Module 1: Introduction

In this module, You will learn about the Features of WPF,Types of WPF Application and WPF Architecture.

- ❖ What is WPF
- ❖ Goals, Benefits & Drawbacks
- ❖ First WPF Application
- ❖ Types of WPF Application (Windows Based and Browser Based)
- ❖ WPF Architecture – Content Model
- ❖ Versions of WPF
- ❖ Installation

Module 2: XAML – Extensible Application Markup Language.

In this module, You will learn about the XAML Advantages,Features and Role Of XAML In Building RICH Windows Applications.

- ❖ Overview
- ❖ Advantage
- ❖ XAML vs Code
- ❖ Properties and Elements
- ❖ Implicit Type Conversion
- ❖ Markup Extensions
- ❖ Namespaces
- ❖ Attached Properties and Attached Events
- ❖ Case and Whitespace in XAML

Module 3: Layout Controls

In this module, You will learn about the sophisticated GUI using WPF Layouts.

- ❖ Border
- ❖ Canvas
- ❖ DockPanel

- ❖ Grid
- ❖ StackPanel
- ❖ UniformGrid
- ❖ WrapPanel
- ❖ Viewbox
- ❖ ScrollViewer
- ❖ Common Layout Properties

Module 4: Controls & Menus

In this module, You will learn about the sophisticated GUI using WPF Control. Menu and Status Bar.

- ❖ Content Controls: Button, CheckBox, RadioButton, RepeatButton, ToggleButton, ToolTip, Expander, GroupBox
- ❖ Text Controls: TextBox, TextBlock, RichTextBox, PasswordBox, Label
- ❖ List Controls: ComboBox, ListBox, StatusBar, TabControl, Toolbar, TreeView, ListView, Menu
- ❖ Shapes Control: Rectangle, Ellipse, Line, Polyline, Polygon
- ❖ Media Controls: Image, InkCanvas, ViewBox, MediaElement, Web-Browser
- ❖ Windows Forms Host: NotifyIcon, DateTimePicker,
- ❖ Misc Controls: Progress Bar, Slider, ScrollBar, Separator, GridSplitter

Module 5: Interoperability-WindowsAndWPF

In this module, You will learn about the Embed WPF controls in a WinForms application or WinForms controls in a WPF application.

Module 6: Events

In this module, You will learn about the Event handling.

- ❖ Mouse Events
- ❖ Keyboard Input

Module 7: Commands

In this module, You will learn about the Built-in Commands and Custom Commands.

- ❖ Built-In commands
- ❖ Custom Commands
- ❖ Routed Commands

Module 8: Styles

In this module, You will learn about the Look and Feel using Custom styles.

- ❖ Styles Overview
- ❖ Advantages of Styles
- ❖ Style Class Properties
- ❖ Declaring Styles
- ❖ Applying Styles
- ❖ Style Inheritance
- ❖ Triggers

Module 9: Resources & Themes

In this module, You will learn about the types of brushes,Static & Dynamic resources and Scope of Resources

- ❖ Types of Brushes
- ❖ Using brush as a Resource
- ❖ Using Resource for Styles
- ❖ Scope of Resources
- ❖ Static and Dynamic Resources
- ❖ Resource Dictionary
- ❖ Resource Library

Module 10: Control Templates

In this Module, You will learn about the Reuse UI using Templates.

- ❖ Logical and Visual trees
- ❖ Data Driven UI

Module 11: Dependency Property**Module 12: User Control**

In this module, You will learn about the Reusable User controls and Custom Controls.

- ❖ Introduction
- ❖ Developing UserControl
- ❖ Using UserControl

Module 13: Data binding

In this module, You will learn about the DataBinding and interacting with data

- ❖ Simple Data Binding
- ❖ Binding to List Data
- ❖ Data Source Providers
- ❖ Master Details Binding
- ❖ Grid View and Data Grid

Module 14: Documents

In this module, You will learn about the fixed and flow documents.

- ❖ Fixed Documents
- ❖ Flow Documents
- ❖ Document Controls

Module 15: Animations

In this module, You will learn about the Animations.

- ❖ Animation Fundamentals
- ❖ Bitmap Effects
- ❖ Transformations

Module 16: Navigation-Based Applications

In

this module, You will learn about the Navigation applications.

- ❖ Page
- ❖ Hyperlink Navigation
- ❖ Navigation Service
- ❖ Frame

Module 17: XBAP Application

In this module, You will learn about creating new rich internet applications.

Module 18: Implementing asynchronous programming patterns

In this module, You will learn about the asynchronous programming patterns.

- ❖ Freezing UI elements
- ❖ Using timers
- ❖ Task parallel library

- ❖ Parallel LINQ
- ❖ Using the dispatcher
- ❖ BackgroundWorker component

Module 19: MVVM

In this module, You will learn about the Pattern based architecture.

- ❖ What is View,View-Model,Model
- ❖ Benefits of MVVM
- ❖ Connecting View-Models to View
- ❖ MVVM Commands
- ❖ Example on MVVM pattern

Module 20: Prism+project

In this module, You will learn about the Prism pattern architecture using the project.

Module 21: Implement a WPF test strategy

In this module, You will learn about the creation of automated tests for the User Interface.

- ❖ Automation peer
- ❖ UI automation
- ❖ IntelliTrace

Module 22: Implement security features of an application

In this module, You will learn about the Security features of an applications.

- ❖ Configuring Software Restriction Policy (SRP)
- ❖ Full trust and partially trusted security
- ❖ User Account Control (UAC)