Windows Presentation Foundation Programming Using .NET Core

Duration: 3 Days *(Face-to-Face & Remote-Live)*, or 21 Hours *(On-Demand)*

Price: CDN$2,275 *(Face-to-Face & Remote-Live)*, or CDN$1,995 *(On-Demand)*

Discounts: We offer multiple discount options. Click here for more info.

Delivery Options: Attend face-to-face in the classroom, remote-live or on-demand training.

Students Will Learn

- Creating a WPF application

- Working with XAML

- Writing XAML markup to create controls, define property values and setup events

- Using the WPF layout controls to create user interfaces

- Enhancing the UIs with the addition of menus, toolbars and status bars

- Creating and using dialog boxes

- Routing Events

- Utilizing resources in WPF applications

Course Description

This course introduces Windows Presentation Foundation (WPF), the .NET technology from Microsoft for building rich Windows applications. WPF includes an XML-based markup language for defining program elements, called Extensible Application Markup Language (XAML). WPF applications can be created using only code or a combination of code and XAML pages. This course covers the essentials of WPF, providing an orientation to this technology and a firm foundation for creating applications in the context of the .NET Core framework. The course utilizes Visual Studio, the C# language, and the latest versions of .NET Core. Comprehensive hands on exercises are integrated throughout the course to reinforce learning and develop real competency.

Windows Presentation Foundation can have a steep learning curve. This course approaches the subject in a practical manner, introducing the student to the fundamentals of creating Windows applications using the features of WPF. It includes coverage of traditional concepts such as controls and also newer concepts such as XAML, flexible layout, logical resources, dependency properties, routed events, and the loosely-coupled command architecture of WPF.

This course is designed to run on .NET Core, an open source and modular implementation of the .NET Framework. As of .NET Core 3.0, it is now very complete and represents the future direction of .NET software from Microsoft, although the classical .NET Frameworks will also continue to be supported.

Students who are already familiar with the C# language that wish to learn about Windows Presentation Foundation applications in the context of the classic .NET 4.0 - 4.8 Frameworks may be better served taking the 3-day WPF Programming for Experienced C# Programmers class instead.

Course Prerequisites

Previous C# programming experience is required. Knowledge of fundamental XML syntax is helpful, but not required.

Contact Us if you do not have prior C# experience and need assistance with choosing a preliminary course to learn C# fundamentals before taking this course.

Course Overview

Introduction to WPF

- Why WPF?
- What Is WPF?
- .NET Core and WPF
- WPF Overview
- Application and Window
- A Simple WPF Application
- Using Visual Studio
- Brushes
- Panels

WPF Controls

- Button
- Label
- TextBox
- ToolTip
- RadioButton
- CheckBox
- ListBox
- ComboBox

Dialogs

- Message Boxes
- Win32 Common Dialogs
- Custom Modal Dialogs
- Custom Modeless Dialogs

Toolbars and Status Bars

- Toolbars

XAML

- Role of XAML
- Elements and Attributes
- Namespaces
- Property Elements
- Type Converters
- Content Property
- Collections
- XAML and Procedural Code

Layout

- Sizing
- Positioning
- Transforms
- Canvas
- Drawing Shapes
- StackPanel
- WrapPanel
- DockPanel
- Grid
- Scrolling
- Scaling

Menus and Commands

- Menus
- Context Menus
- Icons on Menu Items
- Commands
- Keyboard Shortcuts
- Disabling Menu Items
- Checking Menu Items

Dependency Properties and Routed Events

- Toolbars and Commands
- Status Bars

- Dependency Properties
- Change Notification
- Property Value Inheritance
- Support for Multiple Providers
- Routed Events
- Routing Strategies

Resources

- Resources in WPF
- Binary Resources
- Logical Resources
- Static versus Dynamic Resources