.NET GUI Development with WPF

Duration: 3 days   **Price: € 1999**

Audience Course .NET GUI Development with WPF

The course .NET GUI Development with WPF is intended for C# developers who want to develop web applications with Windows Presentation Formation (WPF) and XAML.

Prerequisites Course .NET GUI Development with WPF

Participants should be familiar with Web protocols like HTTP and HTTPS. Knowledge of the fundamentals of C# are required.

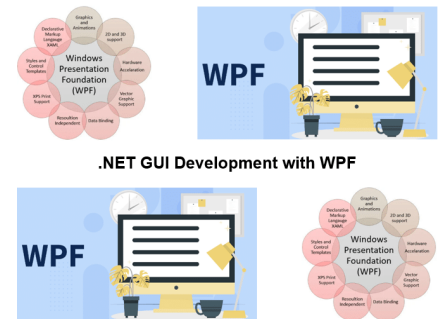### Realization Training .NET GUI Development with WPF

Theory and practice are interchanged. After explanations with slides and demos, participants will do practical exercises with the subject matter.

Certificate .NET GUI Development with WPF

After successfully completing the course, the attendants receive a certificate of participation in .NET GUI Development with WPF.

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Content Course .NET GUI Development with WPF

In the course .NET GUI Development with WPF participants will learn how to create modern desktop applications with Windows Presentation Foundation (WPF). Participants will learn the essentials of XAML, the MVVM architecture, and dive into creating visually appealing user interfaces. The course also covers advanced topics such as data binding, custom controls, graphics, multimedia, and explores localization and accessibility.

Introduction to WPF

The course .NET GUI Development with WPF starts with a discussion of the architecture of the WPF subsystem in .NET for GUI applications. The essentials XML Application Markup Language (XAML), code behind files, functions and event handling are covered.

Layout

Next the layout and user interface elements in WPF for creating visually appealing and responsive GUIs are discussed. Topics covered include panels, grid and the canvas.

Input and Controls

User input with mouse and keyboard and the associated event handling are also treated. Controls such as buttons, text fields, radio and check buttons, combo boxes and list boxes are also covered.

Data Binding

Next data binding in WPF is on the course program and it is demonstrated how data from databases or collections can be bound to WPF GUI elements. This enables automatic synchronization and updating of GUI elements.

MVVM Architecture

The Model-View-ViewModel (MVVM) design pattern is also explained. The MVVM design pattern is widely used in WPF applications to achieve better maintainability and testability through separation of concerns.

Data Access in WPF

Data access in WPF applications is treated with integration with databases using Entity Framework or ADO.NET.

Styles

Attention is also paid to the use of styles and templates in WPF for the creation of attractive GUIs.

Navigation

Then it is time to cover navigation techniques in WPF applications including navigation between pages and navigation between different views in an application.

Text and Graphics

Finally textual and graphic manipulation in WPF is discussed. This includes fonts, shapes, bitmaps and transformations that improve the visual presentation of the application.

Modules Course .NET GUI Development with WPF

Module 1 : Introduction to WPF	Module 2 : Layout	Module 3 : Input and Controls
Intro WPF and .NET	Layout Basics	Routed Events
Overview of XAML	StackPanel	Mouse Input
Set up Environment	WrapPanel	Keyboard Input
WPF Application Structure	DockPanel	What Are Controls?
Working with Controls	Grid	Buttons and Menus
Working with Layouts	Canvas	ProgressBar
Event Handling in WPF	Viewbox	Text Controls
Data Binding in WPF	Layout Properties	List Control
Resources	ScrollViewer	DataGrid Control
Application Deployment	Custom Layout	Slider Controls
Module 4 : Data Binding	**Module 5 : MVVM Architecture**	**Module 6 : Data Access in WPF**
Without Data Binding	Model-View-ViewModel?	Integrating with Databases
What is Data Binding?	MVVM Architecture	Data Access Options
DataContext	Data Binding with MVVM	Entity Framework with WPF
Two-Way Data Binding	Delegates in MVVM	ADO.NET for WPF Applications
Binding to List Data	Communication Techniques	CRUD Operations in WPF
Data Source Providers	Services in MVVM	Caching
Master-Detail Binding	Dependency Injection	Offline Data Access
Hierarchical Binding	MVVM Patterns	Data Validation
Debugging Data Binding	MVVM Libraries	Error Handling
Module 7 : Styles	**Module 8 : Navigation**	**Module 9 : Text and Graphics**
Styling Techniques	Windows	Fonts and Text Styles
Inline Styles	Dialogs	Text Object Model
Named Styles	NavigationWindow	Typography
Element-Typed Styles	Routed Events	Graphics Fundamentals
Data Templates	Pages	Shapes
Resource Dictionaries	Frames	Bitmaps
Custom Styles and Themes	Browser Apps	Brushes and Pens
Visual States	XBAPs	Transformations
Transitions	Navigation to HTML	Visual Layer Programming