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# WinUI training

2 days (14 hours)

#### Presentation

Explore the exciting horizons of user interface development with our WinUI training course.

Immerse yourself in the development modern user interfaces with WinUI, Microsoft's technology for Windows graphics applications.

This training course will help you master the latest features, such as the Fluent Design System and advanced controls in WinUI 3.

Whether you're just starting out or looking to perfect your skills, this training course will guide you through the proper use of WinUI and its XAML language.

As with all our training courses, you'll be introduced to the latest version 3 of WinUI and techniques to ensure you stay at the cutting edge of Windows frontend application development.

# Objectives

- Gain an in-depth understanding of WinUI basics
- Use Fluent Design to improve application aesthetics and ergonomics
- Master best practices for Windows UI applications in C# and XAML
- Set up fluid navigation and apply advanced navigation models

# Target audience

- Application developers
- Computer engineers
- Software architects

# **Prerequisites**

Basic knowledge of Windows application development concepts

# Technical requirements

- Read the official Microsoft guide to installing the WinUI environment on your workstation
- Enabling developer mode in Windows 11
- Install the latest Visual Studio 2022 (Community version at least)
  - By selecting the "Windows Application Development" module on installation

# WinUI training program

#### Introduction to WinUI

- Understanding the basics of WinUI and its evolution towards WinUI 3
- Exploring adaptive user interface concepts
- Analysis of the benefits of using WinUI in application development
- Overview of key WinUI (Fluent Design System) functions
- The importance of adaptability in modern user interface design
- Concrete examples of successful WinUI projects.

### Installation and configuration

- Step-by-step installation of the WinUI development environment (Windows App SDK)
- Initial creation of a WinUI project
- Dependency and package management
- Effective use of version management tools
- Customize development parameters

### Essential WinUI components

- Exploring the basic components of WinUI
- Creating interactive user interfaces
- Integrating data models with components
- Using styles to customize component appearance
- Handling component events for advanced interactivity
- Practical examples of projects using these components

### Navigation and layout

Smooth navigation

- Designing effective layouts
- Using advanced navigation models with WinUI
- Manage transitions between different sections of the application
- Practical advice
- Successful projects using advanced navigation techniques

#### Advanced customization

- Customize application appearance with themes
- Using animations
- Overview of advanced functions
  - Gesture recognition
  - WinUI custom controls in XAML (Custom controls)
- Customize default controls
- Customization optimization

### Performance optimization and debugging

- Best practices for smooth performance
- Integrated debugging tools
  - Dependency tree
  - Hot Reload
- Performance profiling and memory footprint
- Error and exception handling

# Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

# Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

# Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

# Organization

The course alternates theoretical inputs from the trainer supported by examples and

brainstorming sessions and group work.

#### Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

# Sanction

A certificate will be issued to each trainee who completes the course.