Course : .Net MAUI, mobile application development

Practical course - 4d - 28h00 - Ref. MUI
Price : 2470 CHF E.T.

★★★★★ **5 / 5**

.Net MAUI is a cross-platform infrastructure that enables developers to generate native desktop and mobile applications using C# and XAML. It is integrated with Visual Studio. MAUI generates a single code base to create applications that run on Android, iOS, macOS and Windows.

Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Understanding the .Net MAUI mobile application development process
- ✓ Architecting a mobile application using the MVVM Pattern
- ✓ Use various graphic components to design mobile interfaces
- ✓ Enrich the mobile application with access to local and remote data

Intended audience
Mobility developers and project managers.

Prerequisites
Knowledge of C# 5.0, XAML a definite advantage.

Practical details

Hands-on work
The practical exercises will help you to understand the problems of mobile HMIs for all operating systems.

Course schedule

PARTICIPANTS
Mobility developers and project managers.

PREREQUISITES
Knowledge of C# 5.0, XAML a definite advantage.

TRAINER QUALIFICATIONS
The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS
The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 Introduction

- Architecture and installation of .Net MAUI.
- Main new features of .Net MAUI compared with Xamarin.
- Lifecycle of a .Net MAUI application.
- Structure and debugging of a .Net MAUI project.

Exercise
Development and deployment of a first .Net MAUI mobile application following the basic model.

2 XAML language and user interface

- Introduction to the XAML declarative language for mobile interfaces.
- Markup Extensions.
- Platform specifics via XAML.
- Main Page, Layout and View controls.
- Styles, themes, resources, animations, visual states, triggers and effects.

Exercise
GUI development and customization using XAML declarative language and C# code.

3 Data link

- Principle of data binding and BindingContext.
- Link modes and parameter passing.
- Value converters.
- ItemsView controls (ListView, CollectionView).

Exercise
Linking a data context.

4 Mobile application navigation

- Navigation via the Page Navigation service.
- Notions of gestures.
- Passing parameters.

Exercise
Multi-page .Net MAUI application.

5 Introduction and implementation of the MVVM pattern

- MVVM project architecture.
- Analysis of MVVM implementation in the Shell model.
- Navigation, routing and parameter passing via the Shell model.
- Integration of the .Net Community Toolkit for MVVM.
- Notion of ICommand and IAsyncCommand.

Exercise
Master/Child .Net MAUI application using the MVVM Shell model.

(6) Access to local and remote data

- Storage of preference keys.
- Read and write operations.
- Data storage in SQLite relational database.
- REST web service consumption and JSON data parser.

Exercise
Development of a mobile data storage application in SQLite.

(7) Managers and specificity of targeted platforms

- Customize controls via managers.
- Functional specifications for Android and iOS platforms.
- DependencyService.
- Multimedia capture (sound, image and video).
- Geolocation management.

Exercise
Implementation of respective specificities.

(8) Deployment

- Application localization.
- Safety.
- Xamarin Test Cloud capabilities.
- Application deployment to stores.

Exercise
Deployment tests for Android.

Dates and locations

REMOTE CLASS
2026 : 23 June, 3 Nov.