

Winapps

Unlocking Career Opportunities through World-Class Professional Tech Training



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About Winapps Software Solutions Pvt.ltd.

Founded in 2013, Winapps provides IT solutions specially- tailored to its customers' needs, with a focus CRM Implementation, ERP implementation, web and mobile development. We bring security and integrity to the development process, efficiently blending our assets with your existing structure. We love to code; set your business process and we know how to do it right. Our approach, which combines innovation with timely delivery, is perfectly attuned to our clients' goals. Independent from the dynamism and complexity of business requirements, our vast, collective experience and comprehensive solutions library allow us to build cost- effective programming teams and set realistic budgets.





.NET MAUI Development – Industry-Ready Syllabus

Total Duration: 24 Weeks (Approx. 6 Months) **Mode:** Instructor-led + Project-based + Self-practice

Outcome: Students will learn to build, structure, and deploy cross-platform mobile and desktop apps using C#, XAML, and .NET MAUI, preparing them for roles like .NET MAUI

Developer, Cross-Platform App Developer, or Full Stack Mobile Developer.





Module 1: C# & .NET Fundamentals

Duration: 3 Weeks

Learning Objectives:

- Develop a strong foundation in the C# programming language and .NET ecosystem.
- Set up the development environment for .NET MAUI.
- Understand object-oriented programming principles in C#.

Subtopics:

- **C# Basics:** Variables, data types, operators, control statements.
- Functions & OOP: Classes, structs, inheritance, polymorphism, interfaces.
- Collections & Generics: Lists, dictionaries, LINQ.
- Asynchronous Programming: async/await, Tasks, threading basics.
- Error Handling & Exceptions.
- .NET Overview: Framework vs .NET Core vs .NET 8+, SDK structure.
- Environment Setup: Visual Studio 2022/2023, .NET SDK, Android/iOS workloads, Emulators.

Practical:

- Write C# programs demonstrating OOP and LINQ.
- Build a console-based mini app using async methods.

Module 2: MAUI UI Development & XAML





Duration: 4 Weeks

Learning Objectives:

- Understand how to build cross-platform UIs using XAML and MAUI controls.
- Learn layout techniques, navigation, and responsive design.
- Implement styling and basic animations.

Subtopics:

- MAUI Architecture Overview: MAUI vs Xamarin, MAUI project structure.
- **XAML Basics:** Syntax, binding, code-behind.
- Layouts: StackLayout, Grid, FlexLayout, ScrollView.
- Controls: Labels, Buttons, Entries, Lists, Image, CollectionView.
- Navigation: Shell Navigation, Flyout menus, Tabs.
- Styling & Theming: Resources, styles, light/dark mode.
- Animations & Transitions: Simple UI animations, triggers, visual states.
- Responsive Design: Device adaptive layouts.

Practical:

- Build a multi-page MAUI app using Shell navigation.
- Design responsive layouts for both mobile and desktop.

Module 3: Data Handling & State Management





Duration: 4 Weeks

Learning Objectives:

- Manage app data using local storage, APIs, and reactive state techniques.
- Understand MVVM (Model-View-ViewModel) the core MAUI architecture pattern.
- Work with forms, validation, and asynchronous data operations.

Subtopics:

- Data Binding & MVVM Pattern: ViewModels, Commands, INotifyPropertyChanged.
- Forms & Validation: Input controls, validation libraries, data annotations.
- Local Storage: Preferences, File System, SQLite.
- **Networking:** HttpClient, REST APIs, JSON serialization/deserialization.
- Reactive Programming: Observables, data streams (ReactiveUI intro).
- Dependency Injection in .NET MAUI.

Practical:

- Build a form-based app with validation and local storage.
- Integrate a REST API and display dynamic data in UI.
- Implement MVVM in a small project with clean architecture.

Module 4: Advanced MAUI Features & Platform Integrations





Duration: 5 Weeks

Learning Objectives:

- Learn to use device APIs and platform-specific features.
- Implement authentication, push notifications, and background services.
- Use dependency services to write platform-specific code.

Subtopics:

- Platform APIs: Sensors, camera, geolocation, permissions.
- DependencyService & Platform Code: Accessing native APIs (Android/iOS).
- Notifications: Local and Push (Firebase Cloud Messaging, APNs).
- Authentication: OAuth2, JWT, Microsoft Identity integration.
- Offline Sync & Caching: Using SQLite and local caching strategies.
- Background Tasks & Services.
- File Handling & Media Pickers.

Practical:

- Build a location-aware app using MAUI Essentials.
- Implement Firebase push notifications.

Module 5: Testing, Performance & Deployment





Duration: 4 Weeks

Learning Objectives:

- Optimize MAUI apps for performance.
- Implement testing strategies.
- Deploy apps to Google Play, App Store, Windows, and macOS.

Subtopics:

- App Architecture Patterns: Clean Architecture with MVVM.
- **Testing:** Unit testing (xUnit/NUnit), UI testing (App Center Test), mocking dependencies.
- Performance Optimization: Profiling tools, memory leaks, startup time.
- **CI/CD:** GitHub Actions, Azure DevOps pipelines for automated builds.
- Deployment:
 - o Android: Signing, Play Store publishing
 - o iOS: Certificates, provisioning, TestFlight, App Store
 - Windows/macOS: MSIX packaging, Microsoft Store.
- Versioning & Release Strategies.



Practical:

- Write unit tests for ViewModels and services.
- Implement a CI/CD pipeline for a sample app.
- Deploy the app to Play Store or TestFlight.

Recommended Tools:

• xUnit/NUnit, Moq, Visual Studio Profiler, GitHub Actions, Fastlane

Module 6: Capstone Project & Career Preparation

Duration: 4 Weeks





Learning Objectives:

- Build and deploy a production-grade cross-platform MAUI application.
- Prepare for interviews and portfolio presentation.

Project Ideas:

- **E-Commerce App:** Multi-platform store with cart, API integration, offline sync.
- Task Manager: Cross-platform CRUD app with push notifications.
- Social Feed App: REST API + SQLite cache + Shell navigation.
- Location Tracker: Map integration, background services, platform APIs.
- Company Dashboard App: Target mobile + desktop with adaptive UI.

Career Prep:

- Resume and LinkedIn optimization for .NET MAUI developer roles.
- GitHub portfolio setup with clean architecture code.
- Mock interviews on C#, XAML, MVVM, and MAUI internals.

Deliverables:

• End-to-end MAUI app deployed on at least two platforms (e.g., Android & Windows).



Summary Table

Module	Title	Duration	Focus Area
1	C# & .NET Fundamentals	3 weeks	C#, OOP, environment setup
2	MAUI UI Development & XAML	4 weeks	UI, XAML, navigation, styling
3	Data Handling & State Management	4 weeks	MVVM, APIs, storage
4	Advanced Features & Platform Integration	5 weeks	Device APIs, push, offline
5	Testing, Performance & Deployment	4 weeks	QA, CI/CD, multi-platform release
6	Capstone Project & Career Prep	4 weeks	Real-world app + job readiness



Why Winapps?

Agile Methodologies

We use Project Management tool like Slack, Trello, Freedcamp for project management and provide update to client on daily basis.

Round the Clock availability

We work 24x7 and work as per client zone and availability.

Industry Experience

Winapps possesses huge experience with different industries like education, E-commerce, banking, tourism, mortgage, real estate, insurance, medical, and health.

Certified Professional





We have experts in-house as Certified Sales force Developer, Certified force Consultant. Sales Administrator, Certified Sales force Developer (PD1), Certified Sales force Developer (PD2), Certified Sales force App Builder, Certified Sales force Sales Cloud force Consultant. Certified Sales Service Cloud Consultant. Certified Sales force Community Cloud. Marketing Cloud Email Specialist, Marketing Cloud Consultant, Pardot Specialist

Trust and Transparency

We have a proven track record of serving 500+ customers with security as a paramount and high touch communication. Extensive experience in end-to-end Implementations, Integrations, Support & Maintenance as Quality Service & Delivery is the primary focus.





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Winapps

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