

Xamarin Forms Syllabus

Overview: Xamarin is a cross-platform development tool. It solves dilemmas many developers face when developing cross-platform apps: separate coding languages and UI paradigms. With Xamarin, you can use C# for iOS, Android, and Universal Windows apps. And with Xamarin Forms, interface design for all three platforms can be accomplished within its XAML-based framework.

- Understand and implement the Xamarin Forms Development KIT
- Utilize Xamarin Studio for developing cross-platform Native Apps for Android and iOS.
- Understand the Xamarin functionality for designing the User Interface of the app.

Pre-requisite:

- Basic knowledge on programming language C#.

Module 1: - Introduction to Xamarin.Forms

Xamarin.Forms is a framework that allows developers to rapidly create cross platform user interfaces. It provides its own abstraction for the user interface that will be rendered using native controls on iOS, Android, Windows, or Windows Phone.

- What Is Xamarin Forms?
- Cross-platform mobile development
- Xamarin vs. Xamarin.Forms
- Developing Environment

Module 2: - First Application on Xamarin.Forms

This module talks about how to create Xamarin project step by step, difference between Shared project and PCL solution and Activity Lifecycle and how deploy the App in the Emulator.

- Cross-platform options
- Shared Projects
- PCL Solution

Module 3: - Xamarin.Forms Pages

- ContentPage
- master-details
- Navigation Page
- Tabbed page
- CarouselPage

Module 4: - Xamarin. Forms Layouts

- The Kinds and Purposes of Layouts
- StackLayout
- AbsoluteLayout
- GridLayout
- RelativeLayout

Module 5: - Xamarin. Forms Views (Controls)

1. Views for presentation
2. Views that initiate commands
3. Views for setting values.
4. Views for editing text.
5. Views to indicate activity.
6. Views that display collections

Module 6: - XAML Styles

- Inline Styles
- Internal Styles
- External Styles

Module 7: - Databinding

- MVVM Design Pattern
- XAML Binding Syntax

Module 8: - Database Access

Xamarin. Forms applications can use the SQLite.NET PCL NuGet package to incorporate database operations into shared code by referencing the SQLite classes that ship in the NuGet. This module deals with how to connect to SQLite Database and how to store data permanently with a neat Employee example.

Module 9: -Webservices

The Xamarin platform supports consuming different web service technologies and includes in-built and third-party support for consuming RESTful services.

At the end of the course participants will be able to

1. Build mobile apps for Android, iOS and Windows using C#
2. Understand the fundamentals of Xamarin Forms and its architecture
3. Build user-interfaces with XAML and code
4. Work with images
5. Present data in beautiful, interactive lists
6. Implement multi-page apps with navigation, tabs, master/detail pages
7. Build forms and setting pages
8. Store and retrieve data from a variety of sources (SQLite database and RESTful services)
9. Implement Model-View-View Model (MVVM) architectural pattern