

XAMARIN



CURRICULUM

Introduction to Xamarin

- Xamarin vs. Hybrid Framework vs. Native Framework
- Xamarin Development IDE – Visual Studio and Xamarin Studio
- Xamarin Architecture
- Introduction to Mono

Xamarin Development

- Xamarin Cross platform solutions
- Xamarin Family
- Xamarin Development Approaches
- Xamarin Advantages
- Xamarin Disadvantages

Setup the Development Environment on Windows

- Setting up Xamarin on Windows
- Configuring Visual Studio and SDK for Android and Windows UWP
- Configuring Visual Studio Emulator for Android and UWP
- Verify your Xamarin environment on Windows

Setup the Development Environment on Mac

- Setting up Xamarin on Mac
- Configuring XCode, Visual Studio and Android SDK
- Verify your Xamarin environment

Xamarin Project Types

- Xamarin Shared Projects
- Xamarin Portable Class Libraries

XAMARIN.ANDROID

Xamarin.Android

- Introduction to Android
- Android Architecture
- Introduction to Xamarin.Android
- Xamarin.Android Application Structure
- Xamarin.Android Architecture
- Xamarin.Android Code Compilation
- Xamarin.Android APIs

Android fundamentals

- Activities
- Views
- Layouts
- Resources

- Manifest

Android Activity

- Activity Life Cycle
- Activity Life Cycle Events
- Activity States

Running, Deployment, Testing

- Deploying app to Emulator and Devices
- Debugging in Emulator
- Debugging in Device
- Android Debug Log
- Testing app in different emulator

XAMARIN.IOS

Xamarin.iOS

- Introduction to iOS
- iOS Architecture
- Introduction to Xamarin.iOS
- Xamarin.iOS Application Structure
- Xamarin.iOS Architecture
- Xamarin.iOS Code Compilation (AOT)
- Xamarin.iOS APIs

iOS fundamentals

- Storyboard
- Segues
- Views
- View Controllers
- Layouts
- Resources

iOS Life Cycle

- iOS Life Cycle
- iOS Life Cycle States

Running, Deployment, Testing

- Deploying app to Simulator and Devices
- Debugging in Simulator
- Debugging in Device
- Testing app in different Simulator

Windows UWP

Windows UWP

- Introduction to Windows UWP
- Windows UWP Architecture
- Advantages of UWP
- Xamarin for UWP Apps
- UWP Dev Tools

Windows UWP fundamentals

- Page
- Controls
- Layouts
- Resources

Windows UWP Life Cycle

- Windows UWP Life Cycle
- Windows UWP Life Cycle States
- Running, Deployment, Testing
- Deploying app to Emulator and Devices
- Debugging in Emulator
- Debugging in Device
- Testing app in different Emulators

Xamarin Forms

- Xamarin Forms
- Introduction to Xamarin Forms
- Xamarin Forms Architecture
- Xamarin Forms UI
- Xamarin Forms UI Rendering Process
- Xamarin vs. Xamarin Forms
- Xamarin Forms Code Sharing Strategy
- PCL or Shared Project
- Advantages of PCL over Shared Project

Xamarin Forms Fundamentals

- Pages
- Views
- Layouts
- Cells

Xamarin Forms Views/Controls and Views Alignment

- Xamarin Forms Views/Controls
- Comparing Xamarin Forms Controls with Native
- Views Alignment

Xamarin Forms App Life Cycle

- Xamarin Forms Application Methods
- Comparing Android and iOS and Windows App Life Cycle

XAML

XAML

- Introduction to XAML
- How XAML Works?
- Advantages of XAML
- XAML vs. Code
- XAML Compilation
- Xamarin – XAML Page

XAML Properties

- XAML Properties Syntax
- Attached Properties
- Content Properties
- XAML Markup Extensions
- Other XAML Standard Markup Extensions

Resources

- Introduction to Resources
- Resource Dictionary
- Static and Dynamic Resources
- x:Static
- Styles

XAMARIN FORMS FUNDAMENTALS

Layouts

- Xamarin Forms Layouts
- Layout Options
- Stack Layout
- Grid Layout
- Relative Layout
- Relative Layout - Constraint Expression Properties

Layouts Contd.

- Absolute Layout
- Absolute Layout Flags
- Comparing iOS, Android and Xamarin.Forms Layouts
- Content View
- Scroll View
- Frame

Data Binding and MVVM

- Data Binding
- Data Binding Modes
- MVVM
- MVVM Event Handling
- Events and Handlers
- ICommand Interface
- Command with a Parameter
- Triggers

Navigation

- Introduction to Navigation
- Hierarchical Navigation
- Modal Pages
- A Simple Master Detail
- Master Detail Page
- Tabbed Page
- Carousel Page
- Displaying Popups
- Toolbar Items

Data Access – SQLite and RESTful Services

- Setting Up SQLite
- Using SQLite
- INotifyPropertyChanged Interface
- Consuming RESTful Services

Lists

- Populating a Basic List
- Cell Appearance
- Custom Cells
- Grouping Items
- Handling Selections
- Context Actions
- Pull to Refresh
- Search Bar

Multimedia

- Multimedia API
- Playing Audio
- Playing Video

- Accessing Camera
- Alarm Manager
- Gallery

Telephony API

- Telephony Manager
- Phone State
- SIM state
- SIM Number
- Network Type
- Internet Status
- Making Phone Call
- Send SMS

Notification

- Notification API
- Creating Notification Builder
- Setting Notification Properties
- Attaching Actions
- Issuing Notification

Maps

- Maps Initialization
- Platform Configuration
- Using Maps
- Maps Types
- Google Map

Themes

- Light Theme
- Dark Theme
- Customizing Theme

PROJECT DEVELOPMENT

Discussing Project Architecture

- Understanding Application layers
- Discussing Application Entities Properties
- Discussing Relationship among Application Entities

Developing Project

- Designing Application Architecture
- Developing Service layer using Entity Framework Code First
- Implementing User Login and SignUp Process
- Storing User Details in Local DB

Navigation and Profile

- Creating Side menu
- Updating Profile

My Store

- Creating My Store for product listing
- Searching Products
- Product Details

Shopping Cart

- Creating Shopping Cart
- Adding Products to Shopping Cart
- Removing Products from Shopping Cart

Payment Gateway

- Understanding Payment Gateway Process
- Integrating Payment Gateway
- Sending/Receiving data to and from Payment Gateway
- Placing order

Store Deployment – Google, Apple, Windows

- Preparing the App for store deployment
- Adding Application Icons and Images
- Adding Splash Screen
- Packaging and Distributing the App
- Uploading to App Store

Partners :



Java



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