

Android App development with Jetpack Compose

Module 1: Introduction to Jetpack Compose and UI Basics

- Understanding Jetpack Compose: Benefits, declarative UI approach
- Composable Functions: What are composables? How to create and manage composable functions
- Basic Layouts: Column, and Row for UI layout
- Basic UI Elements: Text, Button, Image
- Managing state in Composables using remember and mutableStateOf
- **Demo: Setting up a New Compose Project**
- **Demo: Building a basic app layout with text and buttons, showcasing interaction with state management.**

Module 2: Advanced UI and Animations

- Lists and LazyColumn: Implementing scrollable lists with LazyColumn
- Modifiers and Customization: Using Modifier to customize layouts, padding, alignment
- Animations in Jetpack Compose:
 - Animations with animate*AsState
 - Handling transitions
- **Demo: Simple animations with animate**
- **Demo: Building an app with list scrolling with LazyColumn.**

Module 3: Navigation and Density Handling

- Jetpack Compose Navigation: Setting up navigation between screens
- Handling Density and Multiple Screen Sizes: Responsive layouts with Modifier
- **Demo: Creating an app that navigates between multiple screens and handles different screen sizes.**

Module 4: CRUD Operations with Room Database

- CRUD Basics: Introduction to CRUD (Create, Read, Update, Delete)
- Database Integration: Using Room Database with Jetpack Compose
- Creating and Reading Data: Form UI for inserting and displaying data
- Updating and Deleting Data: Handling data updates and deletion in UI
- **Demo: Full CRUD app with Room database integration, showcasing form-based input, data display, and update/delete functionality.**