

CELEBRATING
15 YEARS

QualityThought[®]
Transforming Dreams! Redefining Future!

A gateway to your _____
Bright Future in the
_____ **IT Industry**



Flutter



   /qttworld

 /qualitythought.in

Introduction to Flutter & Dart

- ⇒ Overview of Flutter & Its Advantages
- ⇒ Understanding Dart Programming Basics
 - a. Variables, Data Types, Functions
 - b. Object-Oriented Programming in Dart
- ⇒ Setting Up Flutter Development Environment
 - a. Installing Flutter SDK
 - b. Configuring Android Studio / VS Code
- ⇒ Running a Sample Flutter App

Flutter Fundamentals

- ⇒ Understanding Widgets: Stateless vs Stateful
- ⇒ Widget Tree & Element Tree
- ⇒ Layouts & Positioning Widgets
 - a. Column, Row, Stack, Expanded, Flexible
 - b. Containers, Padding, Margins
- ⇒ Handling User Input (Forms, Text Fields, Buttons)

Navigation & Routing

- ⇒ Types of Navigation (Named Routes vs Anonymous Routes)
- ⇒ Passing Data Between Screens
- ⇒ Navigation Drawer, Bottom Navigation Bar, and Tabs

State Management

- ⇒ Understanding the Need for State Management
- ⇒ Provider: Basic Usage and Concepts
- ⇒ Riverpod & Bloc: When to Use What
- ⇒ SetState vs Inherited Widget vs GetX

Networking & API Integration

- ⇒ Fetching Data from REST APIs
- ⇒ Using HTTP Package for Network Requests
- ⇒ Handling JSON Parsing
- ⇒ Error Handling & API Response Management

Database & Storage

- ⇒ Using Local Storage (Shared Preferences, SQLite, Hive)
- ⇒ Cloud Storage with Firebase Firestore
- ⇒ Uploading & Fetching Data from Firebase



Authentication & Security

- ⇒ Implementing Firebase Authentication (Google, Email/Password, OTP)
- ⇒ Securing API Calls & Storing Tokens (JWT, Secure Storage)
- ⇒ Role-Based Authentication

UI/UX & Animations

- ⇒ Customizing Themes & Fonts
- ⇒ Creating Custom Widgets & Components
- ⇒ Adding Animations (Implicit & Explicit)
- ⇒ Gesture Detection (Swipe, Drag, Tap)

Performance Optimization

- ⇒ Debugging & Error Handling
- ⇒ Profiling & Reducing App Size
- ⇒ Optimizing Network Calls & Caching
- ⇒ Lazy Loading & Pagination

Advanced Concepts & Real-World Projects

- ⇒ Integrating Firebase Cloud Messaging (Push Notifications)
- ⇒ Implementing Background Services
- ⇒ Flutter Web & Desktop App Development
- ⇒ Deploying Flutter Apps (Play Store & App Store)
- ⇒ Capstone Project – Build a Full-Fledged App (E-Commerce, Chat App, etc.)

Bonus Topics

- ⇒ Testing in Flutter (Unit, Widget, Integration Testing)
- ⇒ Using AI in Flutter (Integrating ML Models, AI Chatbots)





**Our Students
Are Placed In**

QualityThought[®]
Transforming Dreams! Redefining Future!

📞 | 📱 95532 61915

Quality Thought Infosystems India (P) Ltd.

#302, Nilgiri Block, Ameerpet, Hyderabad-500016 | www.qualitythought.in | info@qualitythought.in