🚀 Flutter Pro-Level Curriculum

From Intermediate to Professional Flutter Developer

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> 📋 **Course Overview**
> This comprehensive curriculum contains **8 modules** designed to transform you into a professional Flutter developer.
>
> **Estimated Duration:** 8-12 weeks
> **Level:** Intermediate to Advanced

Table of Contents

🔄 Module 1: Advanced State Management

Topics: Riverpod, Bloc, State Restoration

Resources:

📚 Riverpod Docs (https://riverpod.dev)   💻 Riverpod GitHub (https://github.com/rrousselGit/riverpod)

📚 Bloc Docs (https://bloclibrary.dev)   💻 Bloc GitHub (https://github.com/felangel/bloc)

Project: Task Management App

- ✅ Riverpod + Bloc implementations
- ✅ Offline-first with Hive
- ✅ Undo/redo functionality

🗺️ Module 2: Advanced Navigation & Routing

Topics: GoRouter, Deep Linking, Custom Transitions

Resources:

📚 GoRouter (https://pub.dev/packages/go_router)

🔗 Deep Linking (https://docs.flutter.dev/development/ui/navigation/deep-linking)

Project: E-commerce App

- 🛍️ Nested navigation

- 🛍️ Route guards
- 🛍️ Deep linking

⚡ Module 3: Performance Optimization

Topics: Widget Optimization, Memory Management, DevTools

Resources:

📚 Performance Best Practices (https://docs.flutter.dev/perf/best-practices)

🔧 Memory Profiling (https://docs.flutter.dev/development/tools/devtools/memory)

Project: High-Performance Image Gallery

- 📸 10,000+ images
- 📸 60fps scrolling
- 📸 Advanced caching

🎨 Module 4: Advanced UI & Animations

Topics: CustomPaint, Advanced Animations, Responsive Design

Resources:

📚 Animations (https://docs.flutter.dev/development/ui/animations/tutorial)

🎯 Samples (https://flutter.github.io/samples/animations.html)

Project: Data Visualization Dashboard

- 📊 Custom charts
- 📊 Real-time animations
- 📊 Responsive layouts

🏗️ Module 5: Architecture & Design Patterns

Topics: Clean Architecture, SOLID, Design Patterns

Resources:

📚 Clean Architecture (https://blog.cleancoder.com/uncle-bob/2012/08/13/the-clean-architecture.html)

📖 Flutter Implementation (https://resocoder.com/2019/08/27/flutter-tdd-clean-architecture-course-1-explanation-project-structure/)

Project: Social Media App

- 📱 Clean Architecture
- 📱 Dependency injection
- 📱 Feature modules

📱 Module 6: Native Integration

Topics: Platform Channels, FFI, Plugin Development

Resources:

📚 Platform Channels (https://docs.flutter.dev/development/platform-integration/platform-channels)

⚙️ Dart FFI (https://dart.dev/guides/libraries/c-interop)

Project: Custom Camera Plugin

- 📷 Native camera access
- 📷 Real-time filters
- 📷 QR scanning

🧪 Module 7: Testing & Quality Assurance

Topics: Unit, Widget, Integration, Golden Tests

Resources:

📚 Unit Testing (https://docs.flutter.dev/cookbook/testing/unit/introduction)

🔧 Mockito (https://pub.dev/packages/mockito)

Project: Banking App

- 🏦 90%+ test coverage
- 🏦 CI/CD pipeline
- 🏦 Golden tests

🌐 Module 8: Backend Integration

Topics: Networking, GraphQL, WebSockets, Offline-First, Security

Resources:

💻 Dio (https://pub.dev/packages/dio)   🔥 Firebase (https://firebase.google.com/docs/flutter/setup)

⚡ Isar (https://isar.dev/)

Project: Collaborative Note-Taking App

- 📝 GraphQL integration
- 📝 Real-time sync
- 📝 End-to-end encryption

Essential Resources

- Flutter.dev (https://flutter.dev) - Official website
- Dart.dev (https://dart.dev) - Dart language
- Pub.dev (https://pub.dev) - Packages
- Flutter YouTube (https://www.youtube.com/c/flutterdev)
- Code with Andrea (https://codewithandrea.com)

Learning Path (8-12 weeks)

Phase	Weeks	Modules
Phase 1	1-2	State Management & Navigation
Phase 2	3-4	Performance & UI
Phase 3	5-6	Architecture & Testing
Phase 4	7-8	Native & Backend

Flutter Pro Course

Good luck on your journey! 🎯