

Flutter Topics List:

Basics:

1. Introduction to Flutter
2. Setting up the Development Environment
3. Dart Programming Fundamentals
4. Flutter Widgets and Layouts
5. Navigation and Routing
6. State Management (set State)
7. Basic UI Components (Buttons, Text Fields, etc.)
8. Basic Networking (HTTP Requests)
9. Debugging and Troubleshooting
10. Basic UI Design Principles
11. Basic Animation and Transitions
12. Error Handling and Exceptions

Intermediate:

1. More Advanced State Management (Provider, Bloc, River pod)
2. Complex UI Design and Custom Widgets
3. Internationalization and Localization
4. Working with Assets (Images, Fonts, etc.)
5. Persistent Data Storage (Shared Preferences, SQLite)
6. Advanced Networking (Handling JSON, APIs)
7. Scoped Model Architecture
8. Responsive Design and Layouts
9. Flutter Plugins and Packages
10. Testing (Unit, Widget, Integration)
11. In-App Purchases and Payments
12. Maps and Location Services

Advanced:

1. Advanced Animation and Gestures
2. Complex State Management Patterns (Redux, MobX)
3. Advanced UI Design Patterns (Hero, SliverAppBar, etc.)
4. Custom Paint and Graphics
5. Performance Optimization Techniques
6. Flutter for Web and Desktop
7. Building Custom Flutter Plugins
8. Native Device Features Integration (Camera, Sensors, etc.)
9. Advanced Networking (GraphQL, WebSocket)
10. Firebase Integration (Firestore, Authentication, etc.)
11. Memory Management and Performance Profiling
12. Code Generation and Annotations (Dart Codegen)
13. Platform-specific Code (Platform Channels)
14. Continuous Integration and Deployment (CI/CD)

15. Clean Architecture
16. Use Advanced Flutter Packages
17. Learn a Backend Service like Django and connect it with Flutter Frontend like a Full Stack App.

Projects and Real-world Applications:

1. Building Real-world Apps from Scratch to master it, and most Try Django as a Backend.
2. Do Internships to master
3. Collaborative Development and Code Review (Read Open-Source Projects) to master
4. Creating a Personal Portfolio Website
5. CICD Pipelines & Version Control with Git (GitHub, GitLab, Bitbucket)
6. Problem-Solving and Algorithmic Thinking
7. UX/UI Best Practices
8. Writing Clean and Maintainable Code
9. Learning to Read and Understand Documentation

Flutter Six Months Roadmap:

First Month:

- Only UI:
 1. Login/Signup page
 2. Profile page
 3. Instagram UI
 4. WhatsApp UI
 5. Netflix UI
 6. Spotify UI
 7. E-commerce UI

Second Month:

- Build Logic
 1. Wire Framing / Paper Planning
 2. Writing Functions
 3. Calculator / Stopwatch App
 4. ToDo app without cloud database
 5. Understand Dart Language concepts (Async/Await)

Third Month:

- Database
 1. Firebase Authentication
 2. Todo App
 3. Chat app
 4. E-commerce cart
 5. Social Media Posting

Fourth Month:

- API (Application Programming Interface)
 1. Weather API
 2. TMDB API9
 3. spoonacular API
 4. Create Models for Rendering JSON Data
 5. Start with provider State Management also

Fifth Month:

- Your Backend + Flutter Web

Sixth Month:

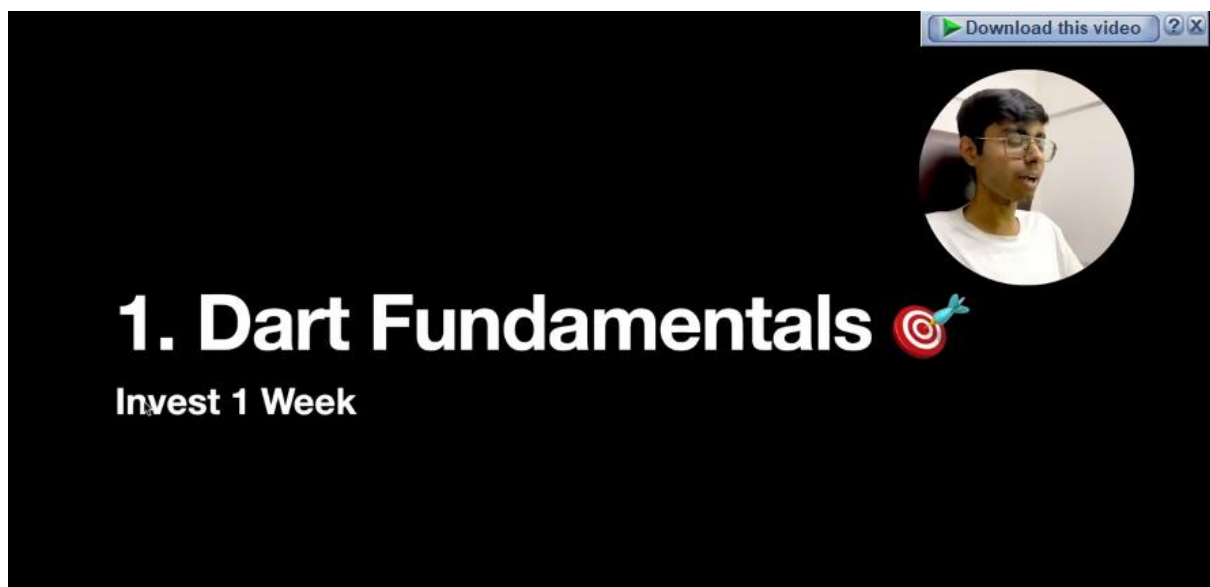
- Clean Architecture
- Bloc patterns

Flutter Links:

https://dev.to/yash_makan/how-to-run-python-code-in-your-flutter-app-with-pyflut-hgc

<https://morioh.com/a/15459ca4bc7d/how-to-connect-python-backend-with-flutter>

Roadmap Pictures:



[Download this video](#) ? X



2. UI Widgets

Invest 4 Weeks

2 Weeks - Concepts

2 Weeks - UI Clone Projects

[Download this video](#) ? X



3. Firebase - Simplest Database

Invest 4 Weeks

2 Weeks - Authentication, CRUD & Object Storage

2 Weeks - CRUD Apps (Note Taker & Grocery App)

4. Work with APIs



Invest 4 Weeks

- Understand HTTP & REST Framework
- 4 Weeks - 4 Projects (Pixels Wallpapers App, IMDB Movies App, Currency Converter App, News App)

At the end you should know how to work with http and dio package

5. Miscellaneous Concepts



Invest 2 Weeks

- Streams
- Navigation (Named Router / Go Router)
- Animations
- Flutter Web
- Clean Architecture

6. State Management



Invest 8 Weeks

- **2 Weeks - Start with Provider (Understand the Concept and build 1 Project)**
- **2 Weeks - Learn Bloc State Management**