SYLLABUS
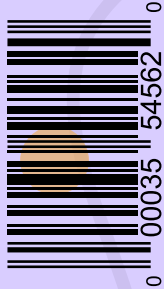
NO.1
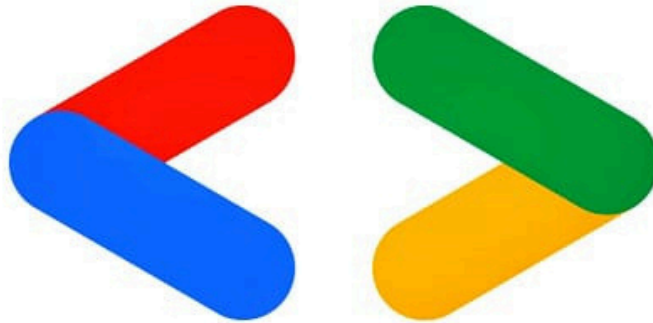
JANUARY 2025

Google Developer Groups

On Campus,
GLA University

WEEK 1

FLUTTER, LAYOUT, WIDGETS, FORMS, SCROLLVIEW

WEEK 2

NAVIGATION, THEMING, FIREBASE, FIRESTORE

WEEK 3

DART, API, STATE MANAGEMENT, PROJECT

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EVENT SCHEDULE
JANUARY 2025

WEEKLY SCHEDULE 1

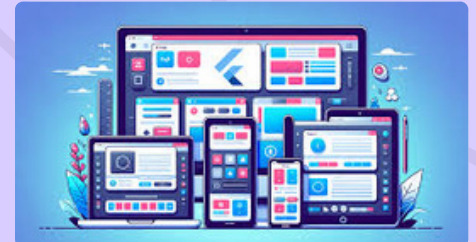## DAY 1

Intoduction to Flutter

- Flutter Overview
- Dart Programming Basics
- Environmental Setup & Troubleshooting
- Interactive Q & A

DAY 2

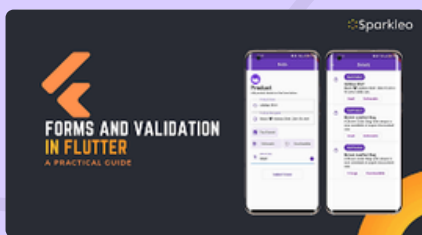### Flutter Basics: Setup, Architecture, and Widgets

- Development Environment Setup
- Understanding Flutter Architecture
- Basic Widgets

DAY 3

Flutter Layouts and UI Essentials

- Flexible Layouts with Widgets
- UI Elements and Styling
- Practical Design and Techniques

DAY 4

Form Controls and User Feedback Elements

- Form Components: Validation, Radio, Checkboxes
- User Feedback: Dialogs, Modals, Bottom Sheets
- Notifications: Snackbars, Banners, Toasts

Interactive Design: Forms and Feedback

DAY 5

Layout Optimization and UI Q&A

- Optimizing Layouts Efficiently: Expanded, Flex, Wrap, ScrollView
- UI Styling Essentials: Buttons, Colors, Padding
- Interactive Q&A Session

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EVENT SCHEDULE
JANUARY 2025

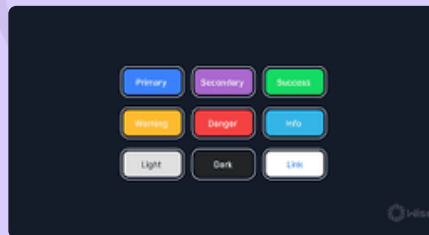# WEEKLY SCHEDULE 2

DAY 1

Navigation & State Management

- Navigation Concepts
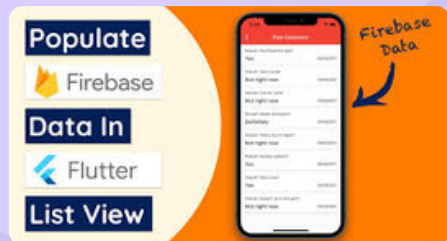- Understanding Constraints
- Data Passing Between Screens

DAY 2

Theming & Buttons

- Theme Implementation
- Widget State Properties
- Custom Button Styling
1. Elevated Button, Text Button
2. Filled Button, Ink Effects
3. Inkwell Widget, Material Button

DAY 3

Firebase Basics

- Firebase Introduction
- Platform Overview
- Project Setup
- Authentication Implementation

DAY 4

Firestore & Lists

- Firestore Basics
- Database Operations
- User Portal Development
1. Profile Management
2. Search Functionality
3. List Implementations (ListView, GridView)
4. Custom Builders, List Separators

DAY 5

Asynchronous Programming Q&A Session

- Future Object
- Stream Basics
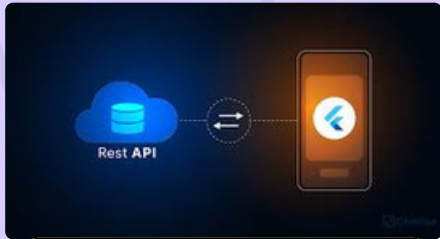- Address Doubts
- Project Review

Google Developer Groups
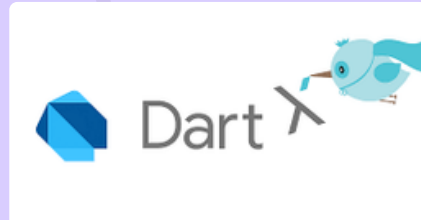## On Campus, GLA University

EVENT SCHEDULE

JANUARY 2025

WEEKLY SCHEDULE 3

DAY 1

API Integration

- Asynchronous Dart
- HTTP Methods (GET, POST, PUT, DELETE)
- JSON Operations: Decoding/Encoding
- Data Class & Model Creation

DAY 2

Dart Collections

- Advanced List Operations
- Map Implementation
- Practical Examples

DAY 3-4

State Management with Provider

- Provider Pattern Basics
- MultiProvider Implementation
- ChangeNotifier and Watch/Read Methods
- Consumer Implementation & Builder
- Advanced Provider Patterns

DAY 5

Project Completion

- Final Q&A Session
- Project Review & Bonus Content
- Course Materials Provided
- Code Samples, Practice Exercises
- Real-world Project Implementation

MEGA HACKATHON

Following the workshop, a thrilling 24-hour hackathon will be organized, where participants can showcase their skills and win exciting prizes!

📅 **March 2025**