



# Winapps

Unlocking Career Opportunities through  
World-Class Professional Tech Training



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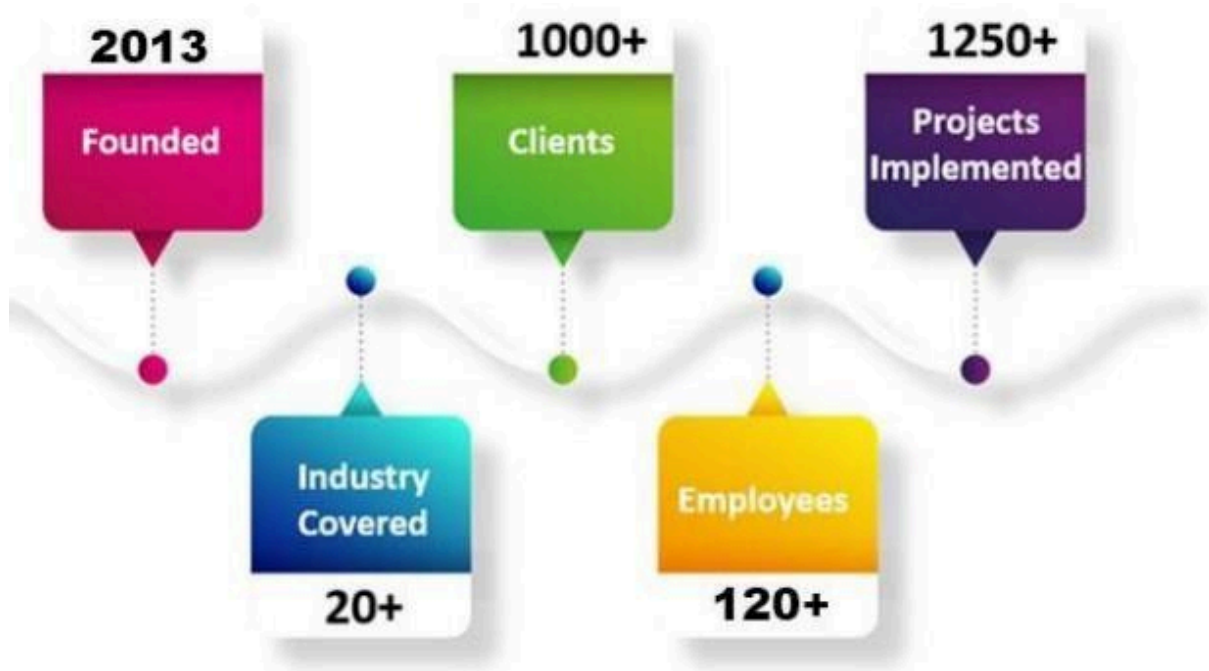
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with professional  
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## About Winapps Software Solutions Pvt.ltd.

*Founded in 2013, Winapps provides IT solutions specially- tailored to its customers' needs, with a focus CRM Implementation, ERP implementation, web and mobile development. We bring security and integrity to the development process, efficiently blending our assets with your existing structure. We love to code; set your business process and we know how to do it right. Our approach, which combines innovation with timely delivery, is perfectly attuned to our clients' goals. Independent from the dynamism and complexity of business requirements, our vast, collective experience and comprehensive solutions library allow us to build cost- effective programming teams and set realistic budgets.*



# Flutter Development – Industry-Ready Syllabus

**Total Duration:** 24 Weeks (Approx. 6 Months)

**Mode:** Instructor-led + Project-based + Self-practice

**Outcome:** Students will be able to design, develop, and deploy **cross-platform mobile & web applications** using Flutter, making them ready for **Flutter Developer, Mobile App Developer, or Frontend Engineer (Flutter)** roles in startups and enterprises.

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## Module 1: Programming & Dart Fundamentals

**Duration:** 3 Weeks

### Learning Objectives:

- Build a solid foundation in the Dart programming language.
- Understand Flutter's architecture and basic widgets.
- Set up the complete development environment for Android, iOS, and Web.

### Subtopics:

- **Dart Basics:** Data types, variables, operators, control flow.
- **Functions & OOP:** Classes, objects, inheritance, mixins, abstract classes.
- **Error Handling & Null Safety.**
- **Asynchronous Programming:** Futures, async/await, Streams.
- **Development Environment Setup:** Flutter SDK, VS Code/Android Studio, Emulators, Hot Reload.
- **Flutter Basics:** Widgets tree, Stateless vs Stateful widgets, Hot Reload/Restart.

### **Practical:**

- Write Dart programs demonstrating OOP and async features.
- Build a basic “Hello Flutter” app with custom widgets.
- Set up and run apps on Android and iOS emulators.

### **Recommended Tools:**

- Flutter SDK, Dart, Android Studio, Xcode (Mac), VS Code, Git

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## Module 2: Flutter UI Design & Layouts

**Duration:** 4 Weeks

### Learning Objectives:

- Master Flutter's UI building capabilities for responsive designs.
- Learn to implement themes, layouts, navigation, and animations.
- Develop visually appealing interfaces aligned with Material Design & Cupertino principles.

### Subtopics:

- **Core Widgets:** Text, Image, Container, Row, Column, Stack, Expanded.
- **Layouting Techniques:** MediaQuery, Flexible, Wrap, ListView, GridView.
- **Navigation & Routing:** Navigator 1.0 and 2.0, named routes, deep linking.
- **Theming & Styling:** Custom themes, dark mode, fonts, icons.
- **Animations:** Implicit and explicit animations, Hero transitions.
- **State Management Basics:** setState, InheritedWidget, Provider (intro).
- **Responsive & Adaptive UI:** Handling different screen sizes and orientations.

### **Practical:**

- Build a multi-page responsive UI with navigation.
- Implement theming with light and dark modes.
- Create animated transitions between screens.

### **Recommended Tools:**

- Flutter Material Widgets, Cupertino Widgets, Lottie, Provider



## Module 3: State Management & Data Handling

Duration: 4 Weeks

### Learning Objectives:

- Learn to manage application state in small and large apps.
- Handle user input, forms, validation, and asynchronous data streams.
- Understand different state management approaches used in real-world apps.

### Subtopics:

- **Forms & Validation:** TextFormField, FormState, custom validators.
- **Local State Management:** setState, lifting state up.
- **App-Wide State Management:** Provider, Riverpod, Bloc (intro), ChangeNotifier.
- **Streams & Reactive Programming.**
- **Networking:** REST APIs, HTTP requests, JSON serialization.
- **Error Handling & Loading States.**

### Practical:

- Build a login & registration flow with form validation.
- Integrate a public API (e.g., weather or news) and display data dynamically.
- Implement Provider or Riverpod for state management in a medium-size app.



## Module 4: Data Persistence & Backend Integration

Duration: 5 Weeks

### Learning Objectives:

- Implement local storage, caching, and offline-first strategies.
- Integrate apps with backend services, Firebase, or custom APIs.
- Learn authentication, notifications, and cloud data handling.

### Subtopics:

- **Local Persistence:** SharedPreferences, Hive, SQLite.
- **Offline Handling:** Caching strategies, data synchronization.
- **Firebase Integration:** Authentication, Firestore, Cloud Functions, Push Notifications.
- **Custom Backends:** REST APIs, GraphQL integration.
- **Secure Storage:** Storing tokens and sensitive data securely.
- **Authentication:** Email/Password, Google, OAuth, JWT.

### Practical:

- Build a notes or to-do app with offline support using Hive or SQLite.
- Implement Firebase authentication and Firestore data sync.
- Add push notifications to a Flutter app.

## Module 5: Advanced Flutter & Deployment

**Duration:** 4 Weeks

### Learning Objectives:

- Gain skills in building production-ready apps.
- Learn advanced Flutter concepts, app performance optimization, testing, and CI/CD.
- Deploy Flutter apps to Android, iOS, and Web platforms.

### Subtopics:

- **Advanced Navigation:** Deep linking, nested navigation, Navigator 2.0.
- **State Management at Scale:** Bloc, Riverpod Advanced, Clean Architecture.
- **App Performance:** Profiling, widget rebuild optimization, lazy loading.
- **Testing:** Unit, widget, integration tests with flutter\_test & mockito.
- **CI/CD:** Fastlane, GitHub Actions for automated builds & releases.
- **App Deployment:**
  - Android: Play Store signing & publishing
  - iOS: App Store configuration & deployment
  - Web: Flutter web hosting & optimization.

### **Practical:**

- Optimize an app for performance and memory usage.
- Write unit and widget tests for key components.
- Deploy a production app to the Play Store (or TestFlight for iOS).

### **Recommended Tools:**

- Bloc, Riverpod, flutter\_test, Fastlane, GitHub Actions, Firebase App Distribution

## Module 6: Capstone Project & Career Preparation

Duration: 4 Weeks

### Learning Objectives:

- Apply all learned concepts to build and deploy a **full-featured Flutter app**.
- Prepare a professional developer portfolio and get job-ready.

### Project Ideas:

- **E-Commerce App:** Product listing, cart, authentication, payments.
- **Social Media Clone:** Feed, profile, comments, push notifications.
- **Task Management App:** Offline-first, sync, multiple users.
- **News or Weather App:** REST API integration + advanced UI.
- **SaaS Dashboard:** Flutter Web + responsive design.

### Career Prep:

- Resume and LinkedIn optimization for Flutter roles.
- GitHub/Portfolio setup with live app demos and code.
- Mock interviews on Flutter, Dart, UI/UX, and app architecture.

### **Deliverables:**

- End-to-end Flutter application published or hosted live.
- Project presentation & documentation.
- GitHub repository with clean, well-structured code.

## Summary Table

Module	Title	Duration	Focus Area
1	Programming & Dart Fundamentals	3 weeks	Dart, setup, Flutter basics
2	Flutter UI Design & Layouts	4 weeks	UI building, navigation, animations
3	State Management & Data Handling	4 weeks	Forms, API integration, Provider
4	Data Persistence & Backend Integration	5 weeks	Firebase, offline storage, auth
5	Advanced Flutter & Deployment	4 weeks	Optimization, testing, CI/CD
6	Capstone Project & Career Prep	4 weeks	Real-world app + career readiness

## ***Why Winapps ?***

### **Agile Methodologies**

We use Project Management tool like Slack, Trello, Freedcamp for project management and provide update to client on daily basis.

### **Round the Clock availability**

We work 24x7 and work as per client zone and availability.

### **Industry Experience**

Winapps possesses huge experience with different industries like education, E-commerce, banking, tourism, mortgage, real estate, insurance, medical, and health.

### **Certified Professional**





We have experts in-house as Certified Sales force Consultant, Developer, Certified Sales force Administrator, Certified Sales force Developer (PD1), Certified Sales force Developer (PD2), Certified Sales force App Builder, Certified Sales force Sales Cloud Consultant, Certified Sales force Service Cloud Consultant, Certified Sales force Community Cloud, Marketing Cloud Email Specialist, Marketing Cloud Consultant, Pardot Specialist

## **Trust and Transparency**

We have a proven track record of serving 500+ customers with security as a paramount and high touch communication. Extensive experience in end-to-end Implementations, Integrations, Support & Maintenance as Quality Service & Delivery is the primary focus.



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# Winapps

*Learn. Build. Succeed. Real Skills for Real*



## Foundation

Here's how you get started



## Skill Development

Deepen your knowledge through structured training,



## Lead in the Real World

Apply everything you've learned to real scenarios, collaborate, solve problems, and step into the industry with assurance.

