

# Mobile Application Development (Flutter)

*Course Outline*

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## Topics

1. Introduction & Software Installation.
2. Introduction to the Dart programming language.
3. Getting started with flutter
4. Flutter widgets
5. Object oriented programming (OOP)
6. Using resources (image, custom font, etc.).
7. Building a calculator app
8. Building a BMI calculator app
9. Fetching data (JSON) from the internet (consuming an API)
10. Building a TODO app using firebase
11. Building a chat app
12. Building an e-commerce app
13. Building a WhatsApp Clone
14. Building an Instagram Clone
15. Building an for release
16. Publishing an app on the app stores

### **Week 1, Day 1 - Introduction & Software Installation**

1. What is Flutter?
2. What is Dart?
3. Installing the Flutter SDK (Software Development Kit).
4. Setting up Android Studio & VS Code for flutter.

### **Week 1, Day 2 - Introduction to the Dart Programming Language**

1. Variables and types (built in types).
2. Functions.

### **Week 1, Day 3 - Getting Started With Flutter**

1. Building your first flutter application (Profile Card)
2. What's a widget?
3. Exploring the flutter widget catalog.

### **Week 2, Day 1 - More On Flutter Widgets**

1. Exploring the flutter widget catalog (commonly used widgets).
2. Building a music app.

### **Week 2, Day 2 - More On Flutter Widgets**

1. Types of widgets (Stateless and Stateful).
2. Building a dice app

### **Week 2, Day 3 - More on Dart (Object Oriented Programming)**

1. Classes and objects.
2. Instance and static variables.
3. Instance methods and static methods.
4. The concept of Inheritance
5. Generics.

### **Week 3, Day 1 - Using resources (image, custom font, etc.).**

1. Working with images
2. Building an app that fetches images from the internet.
3. Using custom fonts

### **Week 3, Day 2 - Building a Calculator app**

1. Control flow statements (if, else, else if)
2. Building a calculator app

### **Week 3, Day 3 - Building a BMI Calculator App**

1. Using a text field.
2. Using text form fields and forms for user input.
3. Building a BMI app.

### **Week 4, Day 1 - Fetching Data (JSON) from the internet (Consuming an API)**

1. Building an app that fetches data (JSON) from the internet.

### **Week 4, Day 2 - Building a ToDo App (Using Firebase)**

1. Building a todo app (part one)

### **Week 4, Day 3 - Building a ToDo App (Using Firebase)**

1. Building a todo app (part two)

### **Week 5, Day 1 - Building a ToDo App (Using Firebase)**

1. Building a todo app (part three)

### **Week 5, Day 2 - Building a Chat App**

1. Building a chat app (part one)

### **Week 5, Day 3 - Building a Chat App**

1. Building a chat app (part two)

### **Week 6, Day 1 - Building a Chat App**

1. Building a chat app (part three)

### **Week 6, Day 2 - Building a Chat App**

1. Building a chat app (part four)

### **Week 6, Day 3 - Building a Chat App**

1. Building a chat app (part five)

### **Week 7, Day 1 - Building an E-Commerce App**

1. Building an E-Commerce app (part one)

### **Week 7, Day 2 - Building an E-Commerce App**

1. Building an E-Commerce app (part two)

### **Week 7, Day 3 - Building an E-Commerce App**

1. Building an E-Commerce app (part three)

### **Week 8, Day 1 - Building an E-Commerce App**

1. Building an E-Commerce app (part four)

### **Week 8, Day 2 - Building an E-Commerce App**

1. Building an E-Commerce app (part five)

### **Week 8, Day 3 - Building an E-Commerce App**

1. Building an E-Commerce app (part six)

### **Week 9, Day 1 - Building A WhatsApp Clone**

1. Building a WhatsApp clone (part one)

### **Week 9, Day 2 - Building A WhatsApp Clone**

2. Building a WhatsApp clone (part two)

### **Week 9, Day 3 - Building An Instagram Clone**

3. Building an Instagram clone (part one)

### **Week 10, Day 1 - Building An Instagram Clone**

4. Building an Instagram clone (part two)

### **Week 10, Day 2 - Building An App For Release**

5. Building, Signing and Packaging an app for release

### **Week 10, Day 3 - Publishing An App On The App Stores**

1. Publishing an app to the app store and playstore