Flutter Notes By Aditya

What is Flutter?

* Flutter is an open-source **UI software development kit (SDK)** created by **Google**. It is used to build **natively compiled applications** for **mobile (Android, iOS), web, and desktop (Windows, macOS, Linux)** from a single codebase.

**Key Features of Flutter:**

* **Single codebase**: Write once, run on multiple platforms.
* **Dart language**: Flutter apps are written in the Dart programming language, also developed by Google.
* **Widget-based architecture**: Everything in Flutter is a widget, which allows for highly customizable and flexible UIs.
* **Hot Reload**: Enables developers to see code changes instantly without restarting the app.
* **High performance**: Uses a high-performance rendering engine called **Skia**.

**Typical Use Cases:**

* Building cross-platform mobile apps with native performance.
* Creating web applications with a consistent design across devices.
* Developing desktop apps without maintaining separate codebases.

**Example:**

import 'package:flutter/material.dart';

void main() {

runApp(MyApp());

}

class MyApp extends StatelessWidget {

@override

Widget build(BuildContext context) {

return MaterialApp(

title: 'Flutter Demo',

home: Scaffold(

appBar: AppBar(

title: Text('Hello Flutter'),

),

body: Center(

child: Text(

'Hello, World!',

style: TextStyle(fontSize: 24),

),

),

),

);

}

}

**EXPLAINATION**

* main() is the entry point. It runs the app using runApp().
* MyApp is a widget that returns a MaterialApp, which sets up the app with material design.
* Scaffold provides a structure with an AppBar and a body.
* Center centers its child (in this case, a Text widget) in the screen.