Task #01

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What is flutter?

Flutter is an open-source framework developed by Google. It is used to develop applications that can run on multiple platforms. Flutter is made as a cross-platform SDK that can be used to build frontend and backend applications in a variety of programming languages, including Dart, Java, C/C++.

How flutter works?

- **Flutter platform:**

  Flutter's platform hosts a Dart virtual machine covered in a shell. The shell is accessible by naive application's APIs and also sets up a platform-relevant canvas. Shells set up communication to execute the various courses of events.

- **Flutter engine:**

  The engine lies right about the Flutter platform layer. It encompasses Dart runtime, Skia, platform channel, etc. However, the engine is a subset of the platform-specific shell.

- **Flutter framework:**

  The first thing is where you interact with the Flutter framework. It is the most important section for any Flutter app development company. You can use the right theme, Cupertino or Android, to define the application's look & feel.

- **Widgets**

  Widgets, aka the building blocks, control the view of the UI. It is the widget that plays an important role in deciding the application's UI. However, widgets are extensible as well as customizable. It can be varied according to the application's design. One interesting thing about Flutter widgets is that it doesn't use any platform widgets; it has its own set of widgets. This drastically reduces the application's complexity.

Why we use flutter instead of using Native platforms:

- Flutter makes reusing code between the two platforms much more accessible, saving time and development resources.

- To perform a specific function together, Flutter uses its own high-performance engine. This makes it an excellent native performer.

- The engine code, i.e., C/C++, is used with LLVM on iOS and NDK on Android.

- During compilation, Dart code is AOT compiled.

- Flutter is composed of widgets. These widgets further consist of Skia Canvas. It sends the event back to its original point.

- Using GPU, the Flatter App updates and upgrades the UI at 60fps. In connection with the Native SDK, the primary widgets are joined with the already written Dart widgets. Flutter app also runs the engine on native principles to contribute widgets on Skia Canvas directly.