QA

1. **Why is Flutter preferred over other mobile app developing tools?**

Flutter is a free and open-source framework, which helps us to design & develop mobile apps by using single codebase in Dart language.

Flutter is an open source software development kit (SDK) UI used for cross-platform applications from a single codebase. Flutter is primarily used for creating natively compiled, multi-platform applications across iOS and Android seamlessly.

1. **What are the different types of streams in Dart?**

Streams provide an asynchronous sequence of data. Asynchronous programming uses the idea of streams. They refer to a program's asynchronous succession of data occurrences. We put a value on one end and a listener on the other, similar to a pipe. Several listeners can be combined into a single stream, and when they are placed in the pipeline, they will all get the same data. It is possible to utilize the SteamController to establish new streams or manage existing ones. There are two types of streams:

Single Subscription Streams These streams convey events in chronological order. They're thought of as individual sequences inside a greater totality. When the sequence in which events are received matters, such as when reading a file, these streams are employed. Throughout the sequence, there can only be one listener, and the event will not be triggered if there isn't one.

Broadcast Streams These broadcasts provide subscribers with information about upcoming events. Subscribers can instantly begin listening to events after subscribing to them. These are flexible streams that allow several listeners to listen at the same time. Furthermore, even after canceling a previous membership, one may listen again.

1. **What is pubspec.yaml file?**

While creating a Flutter project, a particular type of file is always included at the top of the project. This file is known as the pubspec.yaml file, also called ‘pubspec’. This file contains information about a project's dependencies, such as packages and their versions, typefaces, and so on. It ensures that the package version is the same the next time you create the project. You can also place restrictions on the app. This project's configuration file will be used a lot while working with the Flutter project. This specification is written in YAML, a human-readable markup language.

1. **Can you tell us how many kinds of widgets there are in Flutter?**

StatelessWidget- It does not have any state information. It is static throughout its lifecycle. Examples are Row, Text, Column, and Container.

StatefulWidget- It has state information. It contains two classes: the state object and the Widget. It is dynamic because it can change the inner data during the Widget's lifetime. Examples are Radio, Form, Checkbox, and TextField.

1. **Can you tell which function is accountable for starting the program?**

main () function is used to start a program. This function is highly critical as, without it, one cannot write any function.

1. **Name the different types of build modes in Flutter.**

There are three types of build modes in Flutter. These include:

**Debug**- It is used to test the apps. On Android Studio, you can find a green play button on the top panel. “**Flutter run**”

**Profile**- In this mode, some debugging ability is maintained - enough to profile your app's performance, and also, it has the performance as the release mode. “**Flutter run -- profile**”

**Release**- It is used for deploying the app on marketplaces. “**Flutter run - - release**”

1. **What is the use of the Await function?**

The Await function is an asynchronous function. Its job is to wait until it gets the final value. Await is used with async functions and that run asynchronously, giving users the choice to wait for the asynchronous mode to finish before continuing.

1. **Can you use WidgetsApp for basic navigation?**

Yes, a material app widget builds a navigator, which manages a stack of widgets identified by strings, also known as routes objects and gives you two ways for managing the stack.

1. **Which widget allows us to refresh the screen?**

RefreshIndicator Widget enables us to refresh the screen. When the user pulls down on the widget, the onRefresh callback is triggered, which typically involves fetching new data from a server or updating the UI in some way.

1. **Explain the term “Tree shaking” in Flutter.**

Tree shaking is a method of removing the unused module in the bundle during the development process. Tree shaking serves as a sort of optimization technique that optimizes the code by removing the dead code.

While importing or exporting codes, there might be dead codes hanging around. Removing these dead codes reduces the code size which in turn improves the performance of the application.

1. **What is used to import packages for your project?**

pubspec.yaml file is used to import packages in the Dart code.

1. **Why HTTP package is used in Flutter?**

HTTP package is used in Flutter for making HTTP requests to web servers. It allows Flutter developers to send HTTP requests and receive HTTP responses from APIs or web servers.