### Explain what Flutter is.

### Flutter is an open-source framework and toolkit developers use to create applications using the Dart programming language. Applicants should also explain that programming in Flutter can be achieved with a single codebase.

1. What’s the latest version of Flutter?

The latest version of Flutter is Flutter - v1.20.4 released on 15th September 2020.

### What do you mean by Dart? Write its importance.

### Dart is a general-purpose, [object-oriented programming language](https://www.turing.com/kb/object-oriented-programming-help-the-developers-to-code-better) that was initially developed by Google in 2011. It is designed to be fast, efficient, and scalable, making it ideal for building a wide range of applications, including web and mobile apps, server-side applications, and command-line tools.

### What are the types of widgets present in flutter?

In flutter, widgets can be divided into two categories:

1. **Stateless Widget:**A widget that does nothing is a Stateless Widget. In essence, they are static and don’t store any state.   Thus, they don't save values that may change.
2. **Stateful Widget:** A widget that does anything is a Stateful Widget. Stateful widgets are dynamic by nature, which means they can monitor changes and update the UI accordingly.

### Explain App state.

### App State may also be referred to as a shared state or application state. It is possible to share app states across sections of your app and maintain user sessions in the same way. Here are some examples of App State:

1. Login info
2. User preferences
3. E-commerce shopping cart
4. Social networking notifications, etc.

### Write the difference between runApp() and main() in flutter.

* 1. **main():** This function starts the program. Flutter does not allow us to write any program without the main() function.
  2. **runApp():**Using runApp(), you are able to return the widgets that are connected to the screen as a root of the widget tree that will be rendered on the screen. This function is called in the main function, which is the driver of the app.

### Name some best editors for flutter development.

### With the Flutter development tools, developers can make Flutter development faster and thus boost their productivity. In order to develop mobile applications, Flutter IDE and tools require some plugins. With these plugins, we can compile Dart, analyze code, and develop Flutter. Here are some popular IDEs for Flutter development:

1. Android Studio
2. Visual Studio
3. IntelliJ IDEA
4. Xcode
5. Eclipse
6. Emacs
7. Vim, etc.

### What do you mean by flutter SDK?

### A Flutter SDK (Software Development Kit) enables developers to build applications for mobile, web, and desktop using a single codebase.

### What do you mean by Widget testing?

Flutter supports three types of tests:

1. Unit tests: Using unit testing, you can test a class or method. Unit tests do not check for rendering to screen, interacting with external services, or user interactions.
2. Widget tests: Using widget testing, you can test a single widget.  This ensures that the widget's UI looks as expected and responds appropriately to events. In other words, it ensures that the widget design, rendering, and interaction with other widgets are up to the mark.
3. Integration tests:  Using Integration testing, you can test the critical flows of the entire app. It is important to check whether all widgets and services work together as expected. You can also use it to measure and benchmark the performance of your app.

### Explain pubspec.yaml file.

### The pubspec.yaml file, also known as 'pubspec', is a file that is included when you create a Flutter project and is located at the top of the project tree. This file contains information about the dependencies like packages and their versions, fonts, etc., that a project requires. This specification is written in YAML, which can be read by humans.   The following are included in this file:

* + 1. General project settings, like name of the project, version, description, etc.
    2. Dependencies within a project.
    3. The assets of the project (e.g., images, audio, etc.).

1. Flutter is developed by which company?

Google

1. What was the first version of Flutter which ran on an Android operating system?

Sky is the first version of Flutter which ran on Android OS. It was announced at the 2015 Dart developer summit with the stated goal of being able to render consistently at 120 frames per second.

### Name the famous database packages utilized in Flutter?

### The Famous and Most used database packages in the Flutter are:

### ****Firebase Database****: It allows us to manipulate and access cloud databases.

### ****sqflite database****: It enables us to manipulate and access the SQLite database.

### Explain packages in Flutter.

### A package is a collection of classes, interfaces, and sub-packages that enable the creation of modular code that can be shared easily among users.

### ****Packages:****  These are new code or components written in the dart programming language.

1. Explain plugins in Flutter.

**Plugins:** Using native code, enables more usability and makes it easier to use the device.