

# Flutter Assignment 3

## Question 1 - Listview Vs Column?

List View	Column
ListView is the most commonly used scrolling widget. It displays its children one after another in the scroll direction	Column is a widget in flutter that displays vertical array
it is Scrollable and Can be used with different widgets as children	column is not scrollable after the screen area or widget area
horizontal and vertical directions	Only Vertical Scrolling
Reverse allowed	Reverse Columns not Allowed
ListView is it renders only visible items on the screen	Columns Render all Content on Screen and Hence not good for Recycling

## Question 2 - What are Dart Dev tools?

dart dev tools is a complete suite where we can find different tools for different purposes while debugging an app. the Dart dev tools are very useful in debugging an app and also monitoring the performance of app completely with timelines .

The tools Present are -

**Debugger** it is full source level debugger which supporting breakpoints and all inspections the debugger shows CALL STACK , Variables and A COMPONENT tree

**Timeline View** - it is CPU timeline where which process is occurring at that instance and with complete set of tools like Frames , CPU consumption and complete CPU Profile

**Memory View** - SHows Which objects are allocated in memory at that instance of time wich complete memory statistics.

**Performance View** - Flutter Frames chart , Timeline Chart and Cpu Chart about performance is shown .

### **Question 3 - What is a Widget?**

Everything in Flutter is a widget. Widgets describe how your app view should look like with their current configuration and state. When you made any alteration in the code, the widget rebuilds its description by calculating the difference of previous and current widget to determine the minimal changes for rendering in UI of the app. Widgets are nested with each other to build the app. It means the root of your app is itself a widget, and all the way down is a widget also. For example, a widget can display something, can define design, can handle interaction, etc.

Types of Widget

We can split the Flutter widget into two categories:

**Visible** (Output and Input)

**Invisible** (Layout and Control)



## Different Types of Widgets

Output & Input (Visible)

`RaisedButton()`, `Text()`, `Card()`, ...

Layout & Control (Invisible)

`Row()`, `Column()`, `ListView()`, ...

`Container()`

Drawn onto the screen: "What the user sees"

Give your app structure and control how visible widgets are drawn onto the screen (indirectly visible)