

Quiz#1

Dated: 02-10-2023

Objective:

The objective of this task is to create a Flutter application that effectively handles screen orientation changes and adjusts its layout accordingly. The application should provide a visual representation of how widgets can adapt to changes in device orientation.

Description:

In this Quiz, you are required to create a Flutter application with a user interface that adapts to both portrait and landscape orientations. The application should demonstrate various techniques for handling orientation changes and adjusting the layout dynamically. Below are the key components and tasks involved in this assignment:

SafeArea and SingleChildScrollView:

Implement a SafeArea widget as the top-level widget in the application's body to ensure content is displayed within the safe area of the device.

Use a SingleChildScrollView as a child to enable scrolling if the content exceeds the screen height.

Wrap the content in a Padding widget to add spacing around the elements.

OrientationLayoutIconsWidget:

Create a widget class called OrientationLayoutIconsWidget that displays different sets of icons based on the device's orientation.

Use the MediaQuery class to obtain the current orientation.

Return a single Row of icons in portrait mode and two Row widgets in landscape mode.

OrientationLayoutWidget:

Implement an OrientationLayoutWidget that displays differently colored containers based on the device's orientation.

Use MediaQuery to obtain the current orientation.

Return a yellow container in portrait mode and a green container in landscape mode.

GridViewWidget:

Create a GridViewWidget that displays a grid of text items.

Adjust the number of columns in the grid based on the device's orientation (2 columns in portrait, 4 columns in landscape).

Ensure that the GridView does not scroll within the SingleChildScrollView.

OrientationBuilderWidget:

Implement an OrientationBuilderWidget that dynamically adjusts the layout based on the device's orientation.

Use the OrientationBuilder widget to obtain the current orientation.

Return a yellow container in portrait mode and a green container in landscape mode.