In the provided layout, the app adapts to different screen orientations (portrait and landscape) using the following techniques and widgets:

**1. Orientation Adaptation:**

The layout checks the current orientation using MediaQuery.of(context).orientation.

If the screen is in portrait mode, a ListView.builder is used to display the shopping items in a vertical list.

If the screen is in landscape mode, a GridView.count is used to display the items in a grid with two columns, providing better use of the horizontal space.

**2. Reusable Scaffold with Bottom Navigation:**

The AppScaffold widget is used to wrap the main structure of both the HomeScreen and AboutPage. This scaffold includes a BottomNavigationBar to allow users to switch between the home and about screens.

The BottomNavigationBar provides a consistent navigation experience with two items: **Home** and **About**. The selected index is dynamically updated based on the current screen.

**3. Card and ListTile Widgets:**

To display the shopping items, I use the Card widget to create visually distinct items and the ListTile widget for each item in the list/grid. The ListTile includes a leading icon (shopping cart) and a trailing checkbox icon, making it interactive and clear for users to mark items.

**4. Responsiveness and Design Consistency:**

By using widgets like Padding, SingleChildScrollView, and SizedBox, the layout ensures consistent spacing and smooth scrolling, especially when content might overflow (e.g., in AboutPage).

The Card widget's shape property is used to round the corners for a more modern, visually appealing design.

**Key Widgets/Techniques Used:**

MediaQuery for detecting orientation and adapting the layout.

ListView.builder for portrait mode to list items.

GridView.count for landscape mode to display items in a grid.

BottomNavigationBar for easy navigation between screens.

Card, ListTile, and Icon for displaying and interacting with items in the shopping list.

The app ensures a smooth and adaptable experience across devices by adjusting the layout based on orientation and screen size, while keeping the navigation consistent through the bottom navigation bar.

