Design Patterns For Mobile Apps

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***Abstract*—This document is an explication of What do design patterns mobile apps consist of?**
***Index Terms*—mobile, app, design, pattern**

I. Introduction

A design pattern is a reusable approach to solving a common design problem. This solution has been utilized and refined by designers and developers over time to address a specific requirement in an app's user interface. Mobile design patterns can include various elements, such as: Navigation Input validation Data display Layout And more! Using well-established design patterns can make an app's interface more intuitive and familiar to users, as they may have interacted with similar design patterns in other apps. Additionally, design patterns save designers and developers time and effort! Through these, they won't have to reinvent the wheel whenever they encounter challenges in mobile design.

II. 8 MOBILE APPS DESIGN PATTERNS

A. Tab Bar

The tab bar is a popular navigation tool that enables users to easily switch between different sections of an app. Typically located at the bottom of the screen, a tab bar consists of a row of tabs, each representing a different section or view of the app. The corresponding view is displayed on the screen when the user taps. Alternatively, some apps use a bottom navigation bar instead of top tabs, which can provide a more accessible option for users who find it difficult to reach the top of the screen. It is a user-friendly pattern because it allows users to quickly navigate an app without digging through menus or performing complex gestures. It provides a clear visual hierarchy of the app's content, making it easier for users to understand and explore! On top of that, using icons or text labels on each tab can further enhance the clarity and usability of the app's tabs.

B. List View

The list view design pattern displays items users can seamlessly scroll through and select. It usually displays a vertical list of items, each showing a thumbnail image and descriptive text. Users can browse the list by swiping up or down and selecting an item by tapping on it. This pattern is beneficial for displaying lots of information in a condensed and accessible format. For example, a shopping app may utilize a list view to display a catalog of products, while a messaging app may display a list of conversations. List views are highly customizable to suit the needs of an app, such as adding filters or search functionality to help users find specific items. It is a versatile design pattern, so it is widely used in app UI design – especially for displaying a wide range of content!

C. Grid View

As the name hints, the grid view is a layout that arranges a collection of items in a grid format. Users can scroll through the grid by swiping up or down, then tap on an item to view more details or act. Typically, each item is represented by an image or thumbnail, along with some text or metadata. The grid view is suitable for displaying visual content, like images or videos, as it allows users to easily browse through an extensive collection of content in an organized fashion. For example, an eCommerce app may use a grid view to display a collection of products. Or, a photo app may use this view to display a user's photo library.

D. Navigation Drawer

A navigation drawer is a popular tool that slides out from the left or right side of the screen, providing quick access to app navigation options. It's a pattern we've seen in the best android and iOS app designs! When a user swipes from the edge of the screen, the navigation drawer appears, revealing a list of app sections or views to which the user can jump. The navigation drawer is one of those mobile design patterns made for convenience! It allows users to easily access many app navigation options without taking up valuable screen space. Designers can customize it to include additional elements like user account settings or app preferences. Some users may already be familiar with the navigation drawer from other popular apps, like Gmail or Facebook, which also utilize this pattern. This familiarity can make the navigation drawer an intuitive design pattern for your app UI design!

E. Cards

If you're a fan of visually appealing design patterns, go for cards! Use it to display small, self-contained information units that are easy on the eyes. Cards can contain images, text and interactive elements. They are usually arranged in a grid or stack layout. They can display a wide range of content, such as news articles, social media posts or product listings. Cards also make it easier for users to quickly scan and consume information. They can swipe through or tap them to reveal more details. Their compact size also allows more content to

be displayed on a single screen! Additionally, interactive card elements can make them more engaging and visually appealing for users, creating a more immersive experience.

F. Splash Screen

Ever seen those loading animations or progress bars? That's the splash screen in action! While it may seem like a minor detail, the splash screen can significantly impact the user experience of a mobile app. By providing a visually engaging screen that lets users know the app is loading, the splash screen can help avoid frustration or confusion arising from a loading app. Moreover, the splash screen can reinforce brand recognition and establish a consistent visual identity for the app. Through repetitive visuals, users are more likely to remember and recognize the app in the future! However, it's worth noting that a splash screen should be balanced with consideration for the user's time and attention. While a splash screen can help provide visual feedback during loading, it should not delay the user from accessing the app for extended periods.

G. Floating Action Button (FAB)

FAB provides users quick and easy access to the standard or frequently used actions. It is usually a circular button that appears above the other content on the screen, customizable with an icon or text label. The essential advantage of the FAB is that it provides a consistent and accessible way for users to access key app functionality, regardless of where they are in the app. This design pattern is handy for mobile apps that require users to complete a specific action or task, such as adding an item to a list or making a purchase. For example, an eCommerce app might use a shopping cart icon on the FAB, while a social media app might use a "+" symbol to indicate adding new content or starting a conversation. The FAB can also add a fun and playful element to the mobile app UI. By using animation or sound effects, it can create a delightful user experience that engages users!

H. Swipe To Refresh

The swipe-to-refresh design pattern is a popular feature in mobile app design that allows users to update content or data on the screen by swiping down with their fingers. It's one of those mobile design patterns commonly used in apps to display real-time information, such as news or social media apps. This pattern gives users an intuitive way to update content and adds a playful and enticing element to the mobile app UI. The design pattern is often paired with animations or sound effects, which can create an exciting user experience that encourages users to interact with the app! Additionally, it enables users to update content or data without leaving the current screen or navigating to a different part of the app. This makes the process faster and more efficient, enhancing the overall user experience. Plus, it's customizable to match the specific needs and branding of the app. For example, some apps use different animations or color schemes to reflect different types of content or match the overall design.

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