

Mobile Application Key Components & Features & Components of Flutter

Key components of a successful Mobile App

- User Interface (UI) – User Experience(UX)

- Clear and concise UI, Best UX.
 - UI should not be overwhelmed under the information, let the use play with the UI.
 - Best UI is that, a dumb person can also understand the app.
- Responsive Layouts
 - App should be responsive to all kinds of the screens like desktop, mobile, & tablet.
- Consistent Branding
 - Usage of theme and the logo appropriately all over the app.
- Develop Wireframes first using tools like Figma, adobe XD and simulate the app.

- Performance

- Faster Loading Times
 - A typical user expects app to not just perform well, but FAST as well.

Key components – Contd...

- **Functionality**

- Core Features

- Concretely implementation of the core features
 - Bug Free
 - Offline functionality (optional but recommended)

- **Scalability**

- Adaptive to growth

- Design the app architecture to accommodate future growth in terms of users, features, and data
 - This does not only include the front-end but back-end as well

Key components – Contd...

- **Compatibility**

- Cross – Platform development (crucial for app success)
 - Develop app to run on various platforms like iOS, Android, Web, etc.
 - Ensuring the app works well on different devices and screen sized.

- **Feedback and Analytics (crucial)**

- Feedback
 - Develop a mechanism through which a user can provide feedback
- Analytics
 - To implement analytics tools like google analytics to track the user behaviour, app usage and performance metrics.

Key components – Contd...

- **Updates and Maintenance**

- App should provide regular updates for bug fixes and to introduce new features.
- App should also provide UI design change updates time to time.
- To plan several features in advance and then gradually release updates for new features.

- **App monetization**

- If the app is a product then it should have a clear monetization model.
 - Subscriptions
 - In-app purchases
 - Through Ads and then the PRO version.

Key components – Contd...

- Marketing and Promotion

- Optimised SEO

- If it is a web app then there should be optimised SEO.

- App Store Optimization

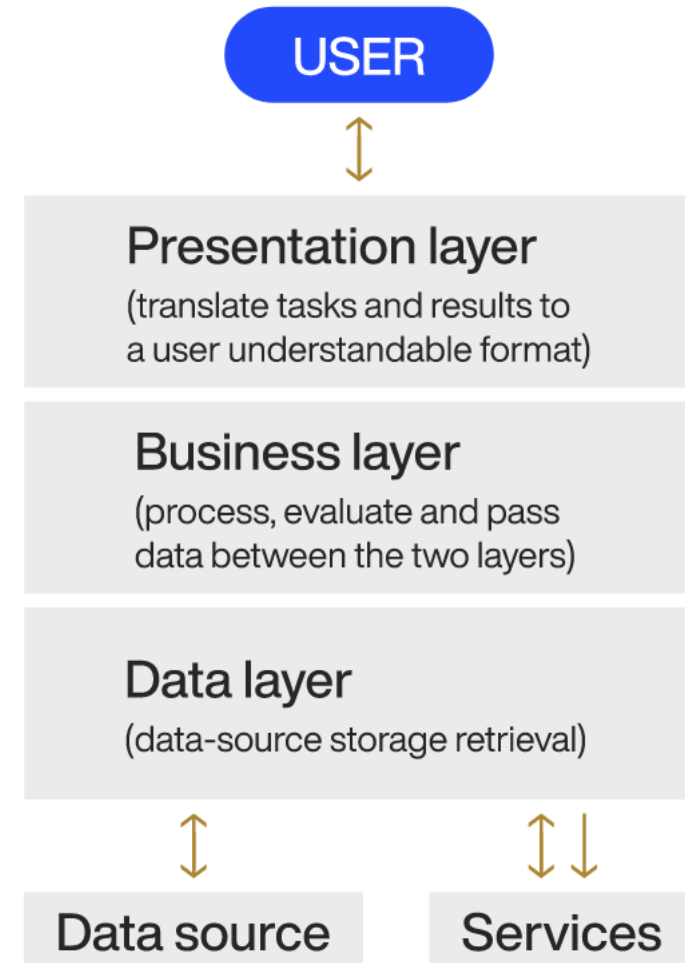
- Optimizing the app's presence on app stores with relevant keywords, attractive visuals, and compelling descriptions.

- Social Media Presence

- This is very important nowadays.

Layers of a Mobile App

- User Interface (UI) – *Presentation Layer*
- Logic – *Business Layer*
- API calls / Backend – *Network Layer*



Flutter

- It's an open source UI SDK created by Google
- Used for building apps for mobile, web, and desktop platforms from a single codebase
- We can develop apps for almost all the platforms like
 - Android, iOS
 - Web
 - Desktop

Features & Components of Flutter

- **Dart Programming Language**
 - Dart is an object-oriented language, class based language similar to Java.
- **Cross-Platform Development and Single Codebase**
 - You can develop apps for mobile, web, & desktop from a single codebase.
- **Widget-Based UI development**
 - Whether it's a button, layout or entire screen, everything is a widget in flutter. In fact, your entire app is a widget.
 - Makes it easy to work with complex UI.

Features & Components of Flutter

- Hot Reload

- One of the stand-out features of Flutter.
- We can see the effects of the code change almost instantly without restarting the entire application.

- Rich Set of Widgets

- Flutter provides comprehensive list of widgets to develop apps for.
- It includes basic UI elements like button, label, etc. to complex layouts and animations.

Features & Components of Flutter

- **Material Design and Cupertino widgets**
 - Flutter provides Google's material design widgets which is widely used in the industry for the developing the UI.
 - It also provides Cupertino widgets for only iOS apps.
- **Faster App Development**
 - App development is much faster compared to native app development by using widgets, hot reload, readily available material widgets.
- **Open Source**
 - Flutter is developed majorly from the public collaboration because it's completely open-sourced.
 - Even You can contribute to the official flutter source code.

Thank You!

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