

RESEARCH AND ANALYSIS OF DEVELOPMENT AND TESTING SPECIFICATIONS OF MOBILE APPLICATIONS

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Development and testing of mobile applications is a complex and detailed process that requires a significant amount of time and effort from the development team. Typically, this process can be viewed as a sequence of steps, each of which involves the completion of different tasks and active collaboration between the team and the client.

1. Analysis and Planning: The first stage involves a detailed analysis of requirements and the determination of project goals. The team meets with the client, studies their business needs and app specifications. They define the functionality, scope of work, technical requirements, and create a work plan and schedule.

2. Design and Interface: At this stage, the user interface (UI) and user experience (UX) design are developed. Designers create layouts, prototypes, and the visual style of the app, ensuring its usability, attractiveness, and logical flow for users.

3. Functionality Development: Developers begin writing code for the app using selected programming languages and frameworks. They create functional modules, interact with databases, implement integration with third-party services, and develop advanced app capabilities.

4. Testing and Debugging: The next step is to test the app to identify and fix errors, ensuring its stability and uninterrupted performance. Testers perform various types of testing, including functional testing, performance testing, security testing, etc. They check the app on different devices and platforms to ensure its compatibility and reliability.

5. Deployment and Release: After successful testing, the app is ready for deployment on mobile platforms such as the App Store for iOS and the Google Play Store for Android. The team goes through the deployment and release process, adhering to platform requirements and app store standards.

6. Support and Updates: After the app is released, the team continues to support it by collecting user feedback, identifying and fixing any issues, and developing updates to enhance the app. Updates may include new features, bug fixes, performance optimizations, and more.

Taking into account all these stages and the required time for each, the process of developing and releasing a mobile app can take a considerable period, ranging from a few months to several years. This depends on the project's complexity, team size, available resources, and other factors. It's important to remember that successful app development requires attention to detail, a focus on quality, and teamwork to create a functional and high-quality mobile application.

Here are some more aspects to consider when developing and releasing mobile applications, as they will help create a high-quality, safe and popular product.

1. Mobile platforms: Today, the two most common mobile platforms are Android and iOS. Developing applications for these platforms requires different sets of tools,

programming languages, and technologies. Developers must consider the specific features of each platform and ensure that the application is compatible with both.

2. Mobile APIs: Some mobile applications use external services and APIs to obtain data or extend functionality. Developers should take this into account when interacting with third-party services and integrating with them.

3. Analytics and Feedback: It is important to include analytics tools in the app to help collect data about user usage and behavior. This can provide valuable information to improve the product and make decisions about updates and improvements.

4. Security: Ensuring the security of a mobile application is an important aspect of development. Developers should be aware of potential security threats, such as hacking, data leakage, or unauthorized access, and take steps to protect the application and users.

5. Marketing and Promotion: The success of a mobile app also depends on effective marketing and promotion. Developers must develop a marketing strategy, including defining the target audience, promotion in app stores, interaction with users and obtaining feedback.

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