Framework solution for the 'To Do notes App'

The 'To Do App' which I hope to develop is a Native Application. Since, when we look at the advantages of native apps,

They work offline

Native app work even if there is no internet connection. In situation where a person is stuck somewhere with limited internet connection such as an airplane, underground tunnel or subway, native applications are accessible.

Since this is a 'To do notes app' the user might need to check it any time to set up his/her plans. Thus, it will be easy for the user if it works offline because that, he/she will be able to check the app wherever and whenever he is.

Native to the platform

Native applications provide better user experience that is consistent with the operating system and with the other applications available on the device. When a user performs some functions, he will be able to quickly understand a natural flow of the application because it is similar to other applications that are already on the device.

This will be a big advantage for a "To Do notes App" user because, the user will use it in any situation, and he/she will find it easy to do the activities smoothly rather than getting frustrated.

They offer speed

Native applications work faster compared to Hybrid or Web apps. Since they work with the device's built-in features, they are speedy.

Since this app mostly target busy people this option will benefit them abundantly. They can organize their tasks easily without allocating too much of time for it.

Native applications maintain aspect ratios

Aspect ratio is an important factor that determines the quality of an image. Native applications have better control over the orientation size and resolution of the app.

Since the user will be using this app in different screen sizes this is a great advantage for the user.

They have access to device features

Native apps have access to full paraphernalia of device specific features, including GPS, camera, gestures, and notifications.

So that the users can save a place they want to visit using the GPS, take pictures and organize their tasks and do many other activities using the device features.

Comparison between Native apps and other framework solutions

1. Hybrid apps

Pros

- **Lower development cost-** Hybrid app development is cheaper compared to Native app development.
- **Easy maintenance –** Hybrid apps are generally easy and simpler to maintain and update web technology than native app technology.
- **One code base –** Native apps must be developed entirely separate for each platform. A hybrid app can be built one and released on both Android and IOS.

Cons

- **Limited functionality-** Developers won't be able to access specific hardware features like augmented reality.
- **Connection Limitations-** Hybrid apps don't work offline. They will also be typically slower since each element has to download.
- **Slower performance-** Hybrid apps are slower compared to native app with same functionality.

2. Web apps

Pros

- **Easier to access-** Web apps are easier to access online at any time.
- **Easier to maintain-** They are easier to maintain with one code base across multiple mobile platforms.
- **Highly portable-** As data is stored in the cloud rather than the device. Users have access to the app wherever they are without the need of synchronization.

Cons

- **Performance depends on the internet connection-** If the user has slow internet connection, they may face performance issues.
- **Limited access to internal features-** Web app have limited scope as far as accessing device's internal features.
- **They can be expensive-** Web apps can be expensive when they need to support multiple platforms.

3. Prograssive web apps

- **Responsive-** Progressive web apps adapt to various screen sizes.
- **No installation process-** PWAs can be easily downloaded in the devices.
- **Secure-**Follows the HTTPS protocol, so the information cannot be displayed or altered.

Cons

- **Greater use of the device battery-**PWAs consume more battery than native apps.
- **Unable to access various device features-**PWAs don't have access to the device's Bluetooth, advances camera controls and so much more.
- Their performance is also not good as the performance of native apps.

Value added feature

The value added feature which I decided to suggest is,

Users can organize their task together and work together. For an example if a group of people need to do a same list of tasks, they can create a group using their contacts in the "To Do App", and share the tasks which will reach everyone within the group (they can add specific timelines too). Once a member compltes a task he can tick it, so that it will be visible to others. Also it will enable the users to know who has completed the task and not.

Since Nowadays everything has become online this feature will be very useful for online schooling - If the teacher sends a list of tasks with a specific timeline, students can tick it once they are done. So that the teacher would be able to overseer their work.

Considerations done when selecting a mobile application framework

- Cost
- Performance
- Time taken to develop the application
- Maintenance after development
- Security
- Availability
- User experience of the app

Favorite application-Pinterest

The user interface of Pinterest is extremely easy to learn. There are billions of pins in Pinterest. It's a great application to get ideas and spark our inspiration.

One of the main reasons I like Pinterest is It suggests ideas and inspirations for the user based on his/her recent activities. Furthermore, the user will find it easy to get more and more ideas and get inspired by them. Also, the images and videos and other contents in Pinterest is of high standard unlike other apps/search engines.

The pins we save will be in our board. We can name our boards and arrange them however we want.

Another reason I like Pinterest is, it's style of long portrait oriented images and videos. And the videos are quick and easy to understand also the duration of the video is short.