

Framework Research

Flutter

- Google open-source framework
- Android and IOS
- Includes widgets, rendering engine, testing and integration API's.
- Easy to learn.
- High performance
- Limited libraries
- Performance on older applications could be limited, not good for our application as user device is unknown.

React Native

- Developed and maintained by Facebook.
- Open source
- Well documented, top choice for developers
- Android and IOS well integrated
- Reusable components and integration with third-party plugins
- Fast development and deployment
- Component based GUI development for front-end.

Swiftic

- Open source
- IOS only
- Easy to learn.
- Fast performance
- Limited third-party libraries

Ionic

- Cross-platform development, IOS, android and web
- Easy to learn if experience with AngularJS.
- But very dependent on AngularJS
- Very good UI components for modern look
- Limited customisation other than the pre-built UI Components

Conclusions

The two best options for the mobile application we want to develop are Flutter and React Native. We don't want to use Swiftic as its only for IOS development, and we want our application to be both for Android and IOS. Ionic also isn't a good option for us, due to the limited customisation for UI and being very dependent on AngularJS, which none of us have experience with.

In between Flutter and React Native, React Native looks like a better option due to it having more available libraries and components available, giving us more customisation options for what we want to produce. React Native is also the most popular mobile development environment for Android and IOS, making it very well documented. This would be very useful as no one in the group has ever developed mobile applications, and along with a lot of libraries and third-party plugins being accessible, it makes it a lot better and easier to learn.