

BUSINESS CASE	
Proposed Project	Developing cross platform Event Planning and Management application using Progressive Web Application tool (Ionic), which allows collaboration of multiple helpers to complete the event tasks.
Date Produced	03-10-2022
Background	<p>Hosting an Event, or joining an event is an activity that every individual has participated in. During covid there was no interaction between friends and family, but post covid people started to physically meet people, attend events and small get together.</p> <p>Two major aspects of the event are event search and event planning & management. To plan or manage an event, most people still use approaches like writing things on paper or memorizing the task that needs to be completed. If we want to search for upcoming public events, there are many application platforms like Facebook and Google. Lastly, to successfully complete any event, we want to add helpers or collaborators which will help us to complete the event without any major setbacks or headaches.</p> <p>We need multiple accounts to access these features separately, and they might only be available on selective platforms (web or native app).</p>
Business Need/ Opportunity	We found a business opportunity that could help users for event search, planning and management. There are many applications which either show events, or single person usage for managing events. There are no event searching, planning and management that is user friendly, free and easy to use across all the platforms. We want to create an application that is accessible through web or native mobile applications. Our application will allow the host to add other collaborators to help them complete tasks, track events and tasks, manage events and search for public events.
Options	<p><i>Option A:</i> Creating just the web application using proper Software designing methods</p> <p><i>Option B:</i> Creating cross platform mobile native application</p> <p><i>Option C:</i> Creating Web progressive application that is implemented on web and native mobile application</p>
Cost-Benefit Analysis	
<p><i>Option A</i></p> <ul style="list-style-type: none"> - Pros: <ul style="list-style-type: none"> - Creating web application might be easier to implement and testing - We have basic knowledge about React Js and vanilla Js which would make coding easier and we can expand on more functionalities - Cons: <ul style="list-style-type: none"> - We won't be able to learn new technology 	

- We might miss on important experience and learning new process and implementation before we graduate

Option B

- Pros:
 - We will get the opportunities to explore native programming language like React Native which is cross platform across IOS and Android
 - Mobile application development is one of the high demand job and there are billions of users interested in exploring mobile application because of its offline feature and quick response
- Cons:
 - There will be some learning curve to learn React Native implementation and testing
 - It will only be limited to Mobile application and won't be able to provide support for web user

Option C

- Pros:
 - PWA is a recently developed feature inside web browsers which utilizes the web code written for web application using simple HTML, CSS, JS and web assembly and could work on mobile and desktop applications.
 - We can view the code for Android or IOS any using PWA tool like Ionic
 - Using a Runtime mediator like Capacitor, we can run the application in real time using any simulation through Android studio or IOS development tool.
- Cons:
 - Capacitor migrates the code to the native language, for example java/Kotlin for Android. It might be difficult to tweak or make changes into separate code base

Recommendation

Option C is the most preferable option apart from other options. We will be mostly using a uniform code approach for coding, so that users across different platforms don't experience major feature or functionality changes. We might have to explore further to know about API service connectivity and response across different platforms.