Link 1: <https://www.suriainternational.com/top-10-challenges-of-cross-platform-app-development/>

Link 2: <https://www.warpdevelopment.com/cross-platform-app-development-advantages-and-disadvantages/>

Link 3: <https://www.sherwen.com/insights/the-role-of-cross-platform-integration-in-improving-ux>

*These are for the second two points in Q.1.2*

For the emergency SOS Services, the potential risks of following the cross-platform development trend for the system in developing and being released is:

* Performance Concerns.

Due to different frameworks, there may be a major difficulty in ensuring optimal Application performance in cross-platform development. This is especially so in resource intensive apps compared to the native performance (admin, 2024). This would require the developers, to be sure to balance the optimization of the efficiency, and the reusability of the code in development. (admin, 2024)

* Security.

Cyberattacks can happen to any software. Cross-platform struggles with this because of small updates; native apps can fix vulnerabilities because small patch frequency (admin, 2024). This would leave volumes of data in a vulnerable state on non-native platforms; this will be an issue with the Emergency SOS Service System being complaint with any legal parameter with the security when dealing with patient’s health information stored on the application. This will require third party tools to used to tackle this issue. (admin, 2024)

* Compatibility Challenges.

Cross-platform app development encounters compatibility issues across different devices or operating systems versions. We must ensure that the Emergency SOS Service application, can run on a consistent basis with functionality across various hardware and software systems configurations (Cameron, 2024). This must be done to ensure that developers develop APIs that cover different systems to ensure compatibility for all devices. (Cameron, 2024)

For the Emergency SOS Service system, cross-platform development can enhance user experience due to better user accessibility to be able to access the application from any device or operating system making it flexible for the user on what device they access the application from (Edwards, 2024). This also offer a user experience that stays consistent across devices whether it be a mobile app, web app, or desktop, the interface, functionality and performance of the application will remain consistent and uniformly throughout the different devices. (Edwards, 2024)

Q.1.3

Company

**Project Name**: Community Emergency SOS Service System

**Project Description**: Build an Emergency SOS Service system application for a community resident.

**Business Case:** Community-driven technology initiative

1. Improve the quality of life for residents.
2. Establish community’s tech outreach and our Company as reliable in the engagement space.

**Project Deliverables:**

1. Project Plan.
2. System Design.
3. Application full development.
4. Network Plan deployment.
5. Migrated and tested application.
6. Program documents.

**Project Benefits:**

1. Boosted reputation
2. Promotion resource

**Project Budget**: R1 750 000.00

**Project Team Members**:

Project Manager

Full Stack Developer

Backend Developer

Frontend Developer

Network Engineer

Designer

Systems Architect

Security Engineer

Database Administrator

Deployment Engineer

**Reference list**

admin (2024). *Top 10 Challenges of Cross-platform App Development*. [online] Suria International. Available at: https://www.suriainternational.com/top-10-challenges-of-cross-platform-app-development/.

Cameron, L. (2024). *The Pros and Cons of Cross-Platform App Development*. [online] Warp Development. Available at: https://www.warpdevelopment.com/cross-platform-app-development-advantages-and-disadvantages/.

Edwards, S. (2024). *The role of cross-platform integration in improving UX*. [online] Sherwen.com. Available at: https://www.sherwen.com/insights/the-role-of-cross-platform-integration-in-improving-ux.