# Tatenda Bvocho - Individual Report

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This report reflects my learning experience and development contributions while building a Hockey Management App. As both a front-end and back-end developer on this project, I was responsible for designing and implementing reusable UI components, data interaction logic, and integrating app features that streamline team, player, and communication management. Below, I describe the work based on various parts of the codebase I developed.

One of the first components I built was the reusable Button component. This component wraps the React Native Paper Button and integrates consistent styling across the app, such as text size, color, borders, and compact layout handling. I learned how to use conditional rendering and styling to create flexible UI elements that adapt to various contexts. Adding support for icons, loading states, and different button modes (contained, outlined, text) allowed the app’s buttons to be used seamlessly across different screens.

Next, I worked on the reusable Card component. It handles rendering content within a bordered container and optionally includes headers, titles, and left/right elements. This helped me understand how to apply composition and conditional rendering in React Native Paper. I also implemented support for onPress using TouchableRipple, allowing cards to be interactive. Styling and elevation adjustments gave me control over appearance and depth.

I then developed the Header component, a reusable app bar that can display a logo, title, subtitle, and right-aligned action buttons. Implementing this helped me understand the importance of creating dynamic headers based on screen context. I practiced image handling, layout structuring with Appbar.Content, and proper spacing between the logo and titles. Styling with transparency and color blending was essential for visual hierarchy.

I also created a centralized Colors file where I defined the color palette used throughout the app. This greatly improved the maintainability and consistency of the UI. By exporting a single color configuration, I ensured all components could reference theme values like primary, background, surface, border, and feedback colors like success or error. This was valuable in learning about scalable and consistent design systems.

Beyond these reusable components, I developed several player management screens which handle the front-end UI for creating, editing, and displaying player profiles. These screens interact with the back-end to fetch and update player information. Through this, I gained a deeper understanding of CRUD operations, state management, and navigation in a mobile context. Validations, form handling, and layout structuring were important skills developed during this process.

On the back-end side, I contributed to setting up Firebase for user authentication and data storage. This involved integrating Firebase SDKs, handling user sign-in flows, and managing real-time updates for data like players and teams. Working with Firestore and Firebase Authentication gave me practical skills in serverless architecture, asynchronous operations, and security rules for protecting user data.

Overall, this project taught me valuable full-stack mobile development skills. I improved in building reusable components, managing app state, applying design systems, integrating with Firebase back-end services, and working within a modular codebase. I also learned to write cleaner, more maintainable code and appreciated the importance of efficient collaboration between front-end and back-end development.

This experience has greatly enhanced my skills in React Native, Firebase, and modern UI/UX development, preparing me for future roles as a software engineer.