

DEVELOPING AN ANDROID-BASED GYM MEMBERSHIP REGISTRATION APPLICATION AND WEB-BASED MEMBER DATA MANAGEMENT SYSTEM

(Case Study: AREA Fitness & Badminton)

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ABSTRACT

Membership registration and data management at AREA Fitness are still conducted manually, requiring prospective members to fill out physical forms on-site. This approach is inefficient and poses risks of data entry errors and loss. To address these issues, an Android-based Gym Member application was developed to streamline the registration process, allow real-time profile updates, and enable seamless membership management. A web-based admin dashboard complements the mobile application by providing centralized and flexible control over member data. Firebase Realtime Database is integrated to ensure efficient and synchronized data access across platforms. The development process adopts the Agile Scrum methodology to maintain adaptability throughout the project lifecycle. Firebase was selected for its capability in handling real-time data and enhancing system responsiveness. Testing results indicate that the application significantly improves the efficiency of the registration workflow and member data management, making the overall process faster, more accurate, and user-friendly.

Keywords: Firebase, Realtime Database, Android, Agile Scrum, Membership Registration.