

BuildLink: Professions Contact Directory

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Abstract: *In today's fast-paced world, finding and connecting with professions from various fields can be a challenging task. The BuildLink: Professions Contact Directory is a mobile application designed to simplify this process by providing a structured and easily accessible directory of professions. This application allows users to search, sort, and filter contacts based on criteria such as profession, name, location, and business/shop name. By leveraging Firebase as the database and Java with XML for Android development, BuildLink ensures real-time updates and a seamless user experience. The project focuses on addressing the limitations of traditional contact management systems by offering a digital, organized, and efficient solution for storing and retrieving professions. Users can access contact details without authentication, ensuring ease of use and accessibility. The intuitive interface and sorting features make BuildLink a valuable tool for individuals and businesses seeking quick and reliable connections with different professions. This project aims to enhance networking, improve accessibility, and streamline communication across different professions, making it a practical and innovative solution in the digital age.*

Keywords: BuildLink

I. INTRODUCTION

In today's fast-paced world, finding the right professions for various services can be challenging. Whether it's hiring a civil engineer, an architect, a contractor, or a supplier, people often struggle to get accurate and reliable contact information. The BuildLink application aims to bridge this gap by providing a well-organized directory of professions from different fields, particularly focusing on civil engineering and trading-related businesses. Users can easily search, sort, and access contacts based on name, professions, business type, and location, making the process more efficient and hassle-free.

Objectives:

- Build a user-friendly contact directory app with a clean interface.
- Allow users to store, search, and access professional contacts.
- Provide sorting and filtering by profession, location, and name.
- Enable one-tap calling for quick contact.
- Use Firebase for real-time, secure data storage and sync.
- Include basic user account management features.
- Design for future scalability (offline access, multilingual support, etc.).

Scope of the Project:

The scope of this project is to develop a user-friendly contact directory app that allows users to efficiently store, search, and access professional contacts, categorized by profession and location. Key features include real-time data storage with Firebase, sorting/filtering options, and one-tap calling. The app will not require authentication for ease of use and will offer a clean, intuitive interface. Future enhancements may include offline access, multi-language support, advanced filtering, and improved search, ensuring scalability and improved user experience.



II. EXPERIMENTAL SETUP

Software Requirements

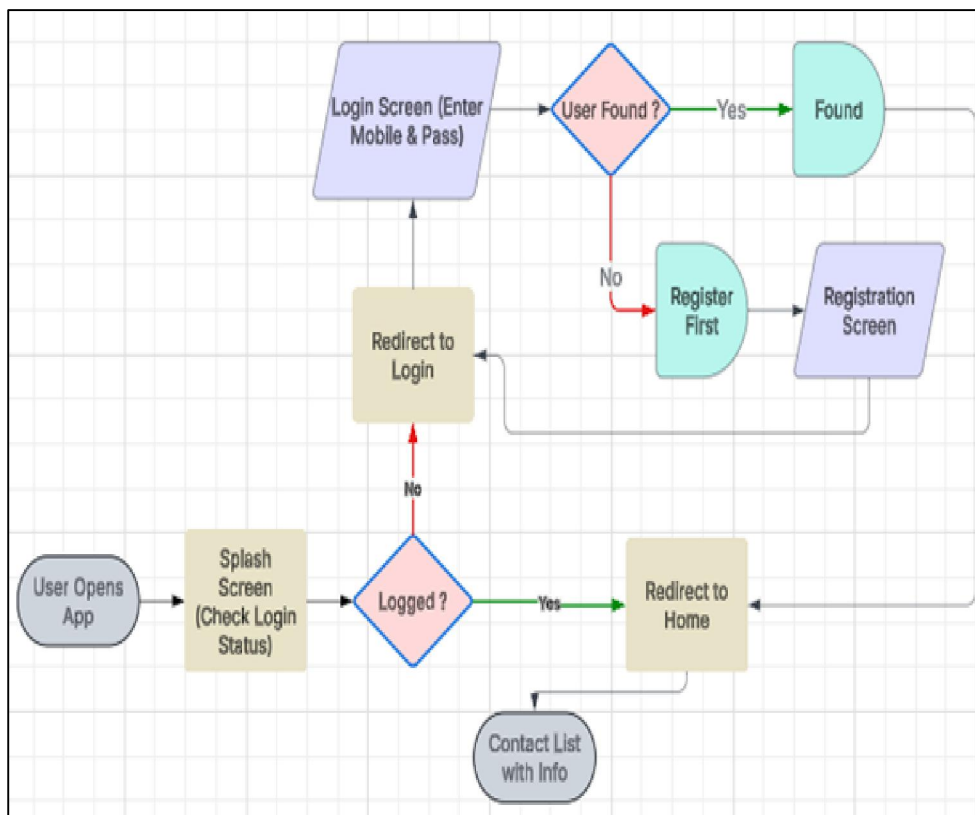
Sr. No.	Software Component	Details
1	Operating System	Windows 10/11, macOS, or Linux
2	Development Environment	Android Studio (Latest Version)
3	Programming Language	Java (Backend), XML (UI Design)
4	Database	Firebase Realtime Database
5	Build Tool	Gradle (for project compilation and dependency management)
6	Version Control	Git & GitHub (for source code management)
7	AndroidSDK & Emulator	For testing and debugging the application

Hardware Requirements

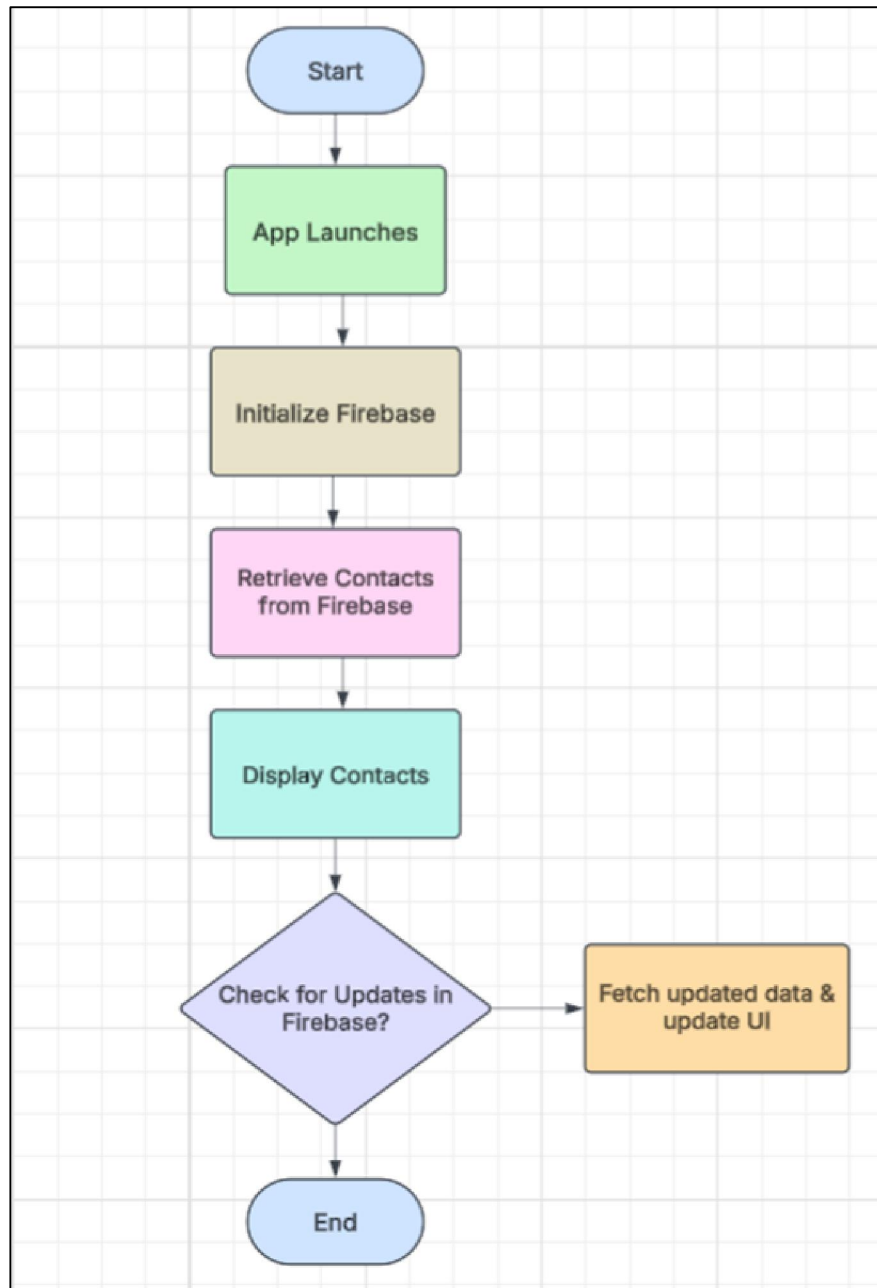
Sr. No.	Hardware Component	Details
1	Processor	Intel Core i5/i7 or AMD Ryzen 5/7 (or higher)
2	RAM	Minimum 8GB (Recommended: 16GB for smooth development)
3	Storage	Minimum 20GB free space (SSD recommended for faster performance)
4	Graphics Card	Integrated or dedicated GPU for smooth rendering in Android Studio

Process Flow:

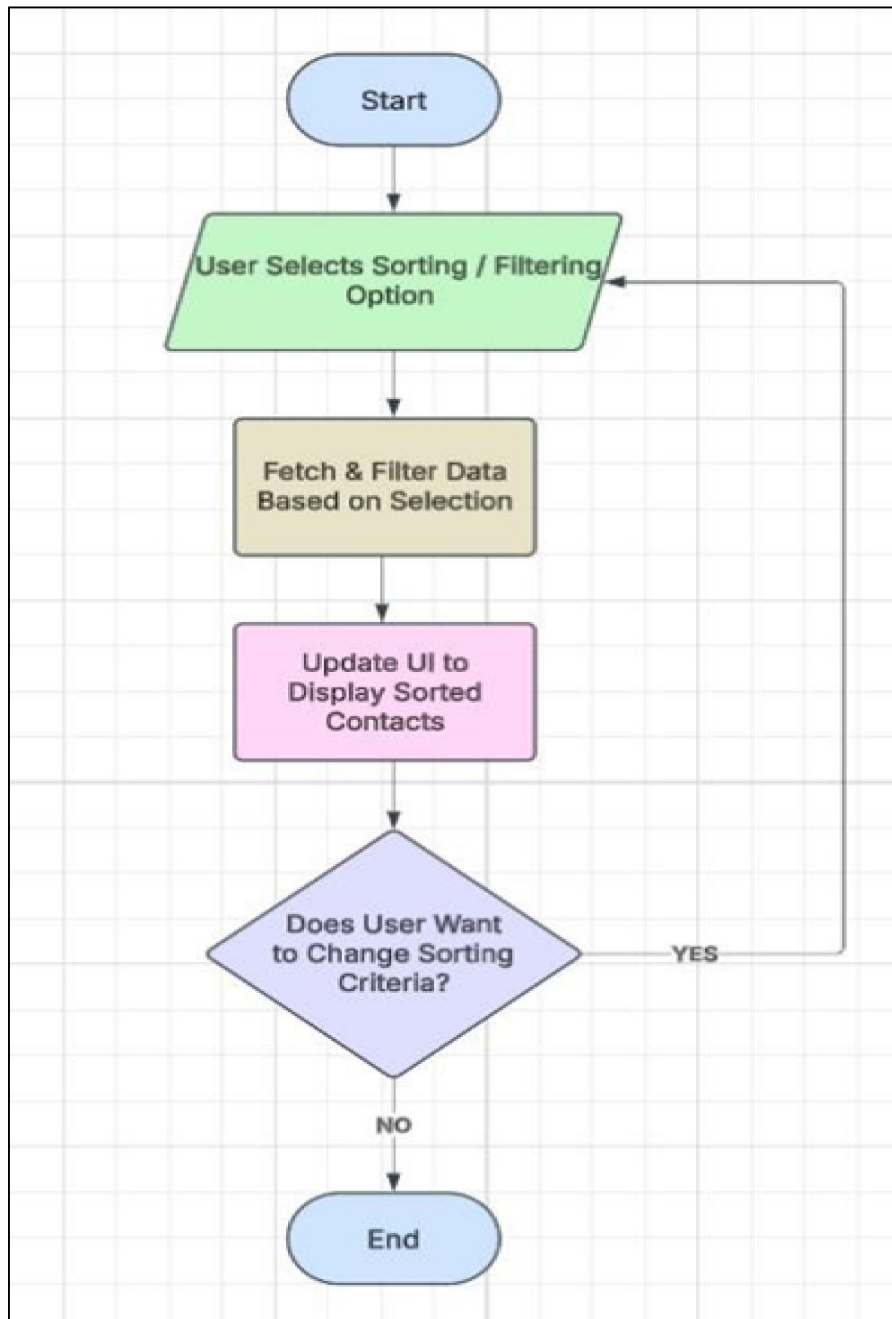
Flow 1: App Structure (Data Flow Diagram)



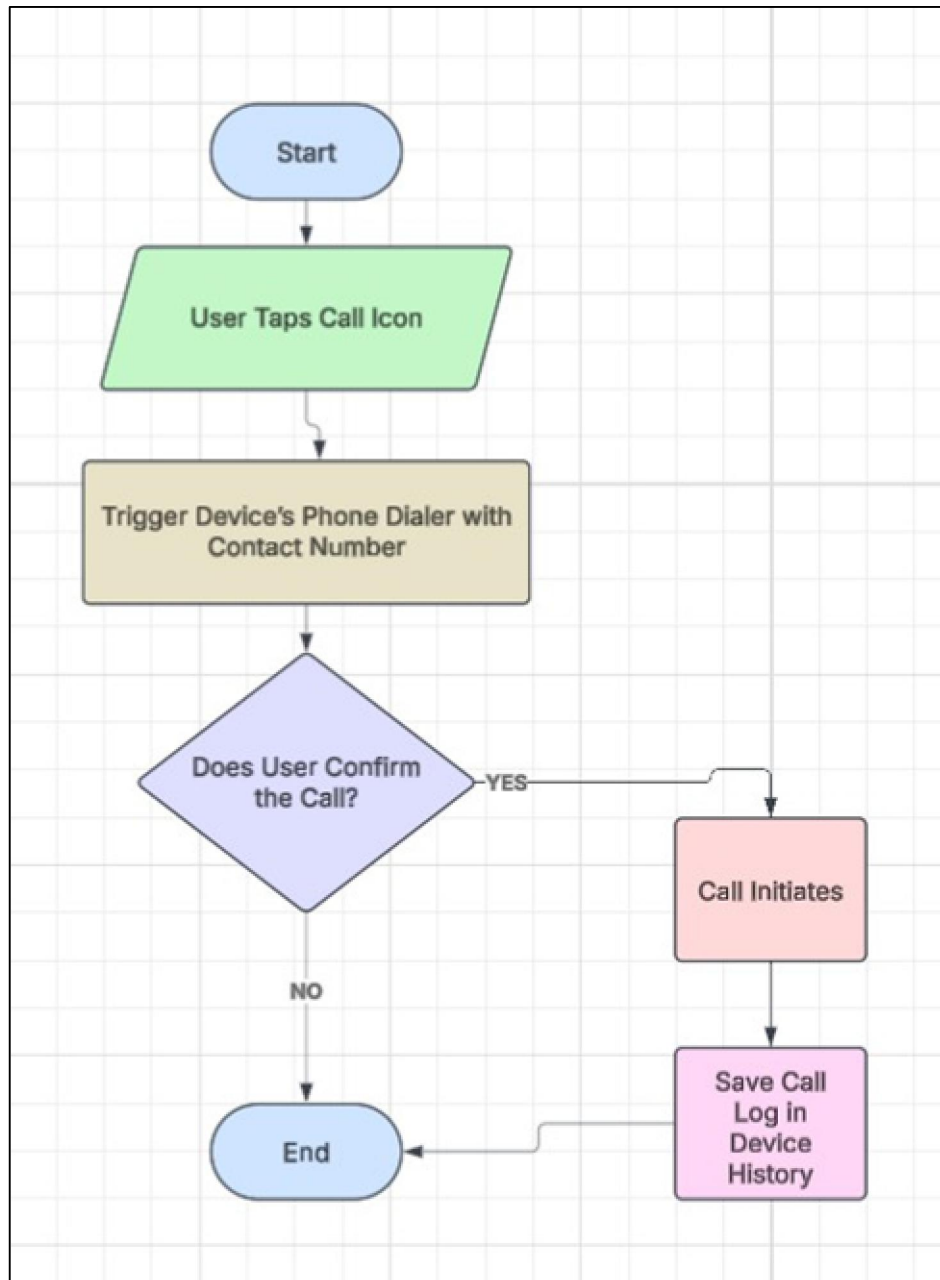
Flow 2: Contact Retrieval & Display ("Smart Contact Fetch")



Flow 3: Contact Sorting & Filtering ("QuickSort Connect")

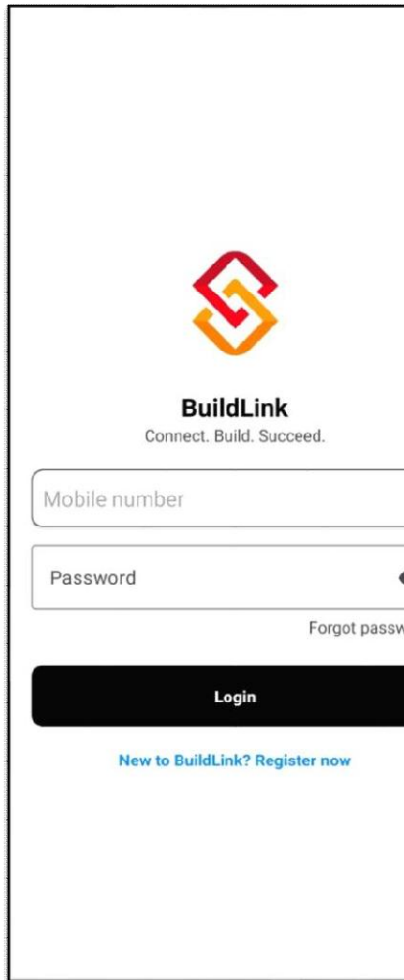


Flow 4: Calling a Contact ("One-Tap Dial")



III. RESULT:

Login Page



BuildLink
Connect. Build. Succeed.

Mobile number

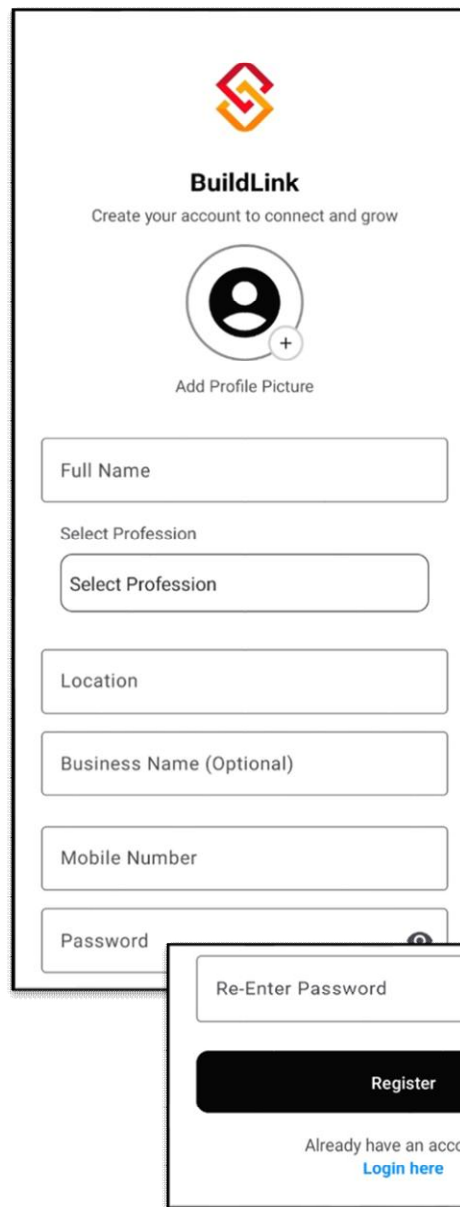
Password

[Forgot password](#)

Login

[New to BuildLink? Register now](#)

Registration Page



BuildLink
Create your account to connect and grow

Add Profile Picture

Full Name

Select Profession

Select Profession

Location

Business Name (Optional)

Mobile Number

Password

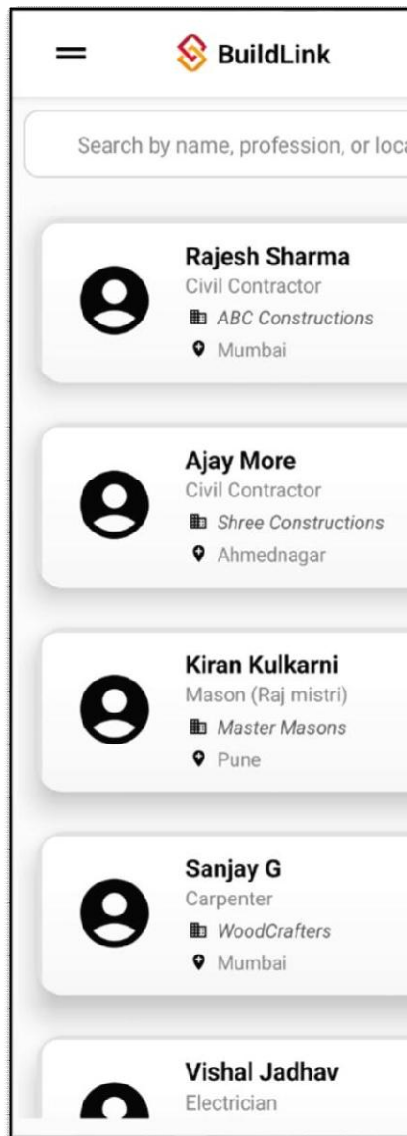
Re-Enter Password

Register

Already have an account? [Login here](#)



Home Screen



Navigation Drawer



IV. CONCLUSION

The BuildLink application successfully addresses the need for a structured and efficient professional contact directory. By integrating sorting, filtering, and direct calling features, the app simplifies the process of finding and connecting with professionals from various fields, especially in the construction industry. With a user-friendly interface, real-time data synchronization, and lightweight performance, the app ensures smooth operation and accessibility. The use of Firebase enhances the application's efficiency by enabling instant updates and seamless data management. Overall, BuildLink provides a practical and scalable solution for professionals, businesses, and individuals seeking quick access to verified contacts. The app's potential for future expansion includes features like location-based search, user ratings, and additional service categories, making it a valuable tool for business networking and industry collaboration.



ACKNOWLEDGEMENT

We must mention several individuals that were of enormous help in the completion and development of this work. Mr. G. T. Chougule our guide encouraged us to complete this microproject work. his continuous invaluable guidance throughout the course this study helped us to complete the work up to this stage and hope will continue in further work. I am also very thankful to HOD Mr. D. V. Mirajkar for his valuable suggestions, critical examination of work during the progress, We are indebted to them.

In addition, very energetic and competitive atmosphere of the Department of Computer Engineering had much to do with this project work. We acknowledge with thanks to faculty, teaching, non-teaching staff of department.

I sincerely thank to Prof. Dr. H.S. Jadhav (Dean Diploma), for supporting us to do this work and we are very much obliged to him. Last but not the least; our parents and family, friends, constantly supported us for this work in all aspects.

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