

Daily Drill: The Daily Problem Service Provider

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Abstract: Daily Drill is a revolutionary mobile app that serves as an intermediary agent between customers and service providers to cater to the increasing demand for competent, dependable, and quality service provision. The application aims to simplify the process of acquiring essential services through a solid platform connecting users to professional service providers such as plumbers, electricians, carpenters, wiremen, and cleaners. Now with its easy-to-use interface, sophisticated matching algorithm, and emphasis on convenience, The Daily Drill is set to transform the way consumers address their daily service needs. It provides a uniqueness to the customers, a database of verified and experience service providers. Users can easily view profiles, compare ratings and reviews, and make appointments at their convenience. Using intelligent matching algorithms, the system will find the best service providers according to the customer location, service type, and availability. This guarantees timely service provision and reduces the inconvenience of looking for trustworthy experts. On the other hand, the Everyday Drill is an essential tool for service providers to scale their operations, enhance visibility, and streamline bookings. It allows service providers to register their (expertise), provide (availability), and (bill customer) for services through reviews and reviews-up ratings system. For professionals, this means getting growth opportunities, while customers get services that they can trust — effectively creating a win-win situation for all. Common bargain proposals meaning: Day-To-Day Challenges, Issue Settling Support, Undertaking Chief, Specialist Business, Robotized Arrangements, Efficiency Sponsor, Secure Exchanges, Security.

Key Words: Daily Challenges, Problem-Solving Service, Task Management, Service Provider, Automated Solutions, Productivity Booster, Secure Transactions, Security.

1. INTRODUCTION:

As we live in a time where we have so much to do in a given day, from running errands to other daily tasks, it becomes increasingly more difficult. Between the plethora of work, different service providers to interact with, and the increasing demand for an easy and reliable solution, people and homes need a service that collects all the functionalities to solve problems in one go. Finding and engaging a service provider is normally

done through searching online, making multiple phone calls and costly transactions, all of which can be inefficient and frustrating. These are routine but unfortunately time-consuming actions; The Daily Drill is here to change that by bridging the gap between the individuals in need of service and those who provide it, from nailing two items to the wall to providing a solution for a leaking faucet, bathroom issues, and more — all in one place. The challenges of discovering, engaging, and trusting service providers are built into the Daily Drill platform and its easy-to-use, security-focused, but simple structure. Through the Daily Drill, users have access to all of these service providers, allowing them to both quickly and securely find and hire trusted professionals to complete work in real-time, manage bookings, and even gain insights into their service history. The platform is developed based on the latest technologies to ensure performance, scalability and robust security protocol, allowing users to remain free of any hassle knowing that their investment is completely secure. The Daily Drill platform's ability to connect multiple service providers at one platform through a single interface is one of its major differentiators. Moreover, its integration with secure payment gateways enables quick and secure transactions, with no requirement for third-party payment apps. Interactive mapping and scheduling tools have the greatest user experience, providing users an overview of what services and providers are available on live maps and calendars. 1. The Daily Drill architecture to modernise the way service is provided and used to address day-to-day problems. A Daily Drill is an essential tool for both individuals and households looking for convenience and efficiency, all while providing precise service management with strong security.

2. Literature survey/related work:

D. Kuryazov et al. (2019) have researched sustainable service-oriented architecture for the development of smart cities. The research emphasizes the importance of software platforms in offering smart city services, making them sustainable, and effectively integrating government and non-government services. The paper emphasizes the use of Service-Oriented Architecture (SOA), Component-Based Development (CBD), and Model-Driven Engineering (MDE) for creating scalable and maintainable smart city applications. The authors

stress the importance of a disciplined software architecture to prevent monolithic solutions and allow smooth integration of services [7].

N. Habib et al. (2018) outlined a conceptual business model for Repairing, Maintenance, and Cleaning Services (RMCC). The research investigates the adoption of Business Model Canvas (BMC), Value Proposition Design (VPD), and benchmarking approaches to improve service delivery. The authors hold the view that RMCC services are essential for contemporary urban lives in which people are finding it difficult to attend to household responsibilities. The envisioned model combines variable working hours, temporary jobs, and online platforms to make requests efficient. The research points to growing demand for the services and calls for technological advancement to enhance efficiency and satisfaction [8].

A. Bhattacharjee et al. (2017) presented "Service-Hub," an internet-based system meant to facilitate communication between receivers and providers of day-to-day household services. The study is based on the problem of inefficient allocation of services and improper communication between users. The system uses location-based service matching, a rating system, and an automatic job allocation mechanism to enhance accessibility to services. The research emphasizes the role of online platforms in service provider selection and service distribution for ensuring customer satisfaction by using data-based selection [9].

3. Methodology:

In the following sections, you will find a generic outline (blueprint) for a daily drill daily problem service provider. This project brings together Flutter for cross-platform frontend development, Firebase Authentication and Firestore for secure user management and encrypted, real-time data storage, and Stripe for payment processing and wallet transactions.

Phase 1: Setting up systems While real-time working, the platform will need: **Compatible Deployment:** Built on Flutter and muh clients can be Android and iOS. **Cloud Infrastructure:** Uses Firebase Authentication for secure login and Firestore for real-time data storage. **Payment Processing:** Incorporates Stripe Payment Gateway for secure transactions, subscriptions, and wallet handling.

Phase 2: Software Implementation **Frontend Development:** Flutter was used to create a mobile application that is smooth, responsive, and gives a native-like look. UI elements are built using Material Design guidelines, allowing everyone to deliver a reasonably consistent application. **Backend & Database Management:** Firebase Authentication protects user

login and provides identity proving. **Firestore (NoSQL Cloud Database)** → User Activity, Problem submissions, Transaction history Background processes such as problem assignment, notifications of solution, wallet updates, etc. are handled by **Firebase Cloud Functions**. **Payment Gateway & Wallet Integration:** The Stripe Payment Gateway takes care of secure transactions and subscriptions. Users can load the wallet with funds, check transaction history and monitor spending. **1. System Workflow** **User Registration & Authentication:** Users register themselves for the Flutter UI using **Firebase Authentication** (email / password, Google login, etc.). Login authentication allows secure access and protects account information. **Daily Drill & Problem Assignment :** Daily problem challenge given to users, and it is stored and retrieved from **Firestore**. **Firebase Cloud Functions** is responsible for distributing problems depending on the history and preferences of users. **Submission of problems & tracking of progress:** The users submit their solutions through the Flutter app and the user's progress is updated in **Firestore**. Number of attempts, corrections, completion record, etc. **3.3 Wallet & Transaction Management** In-app purchases and wallet funds integration with **Stripe** You learn the transaction history, subscription status and wallet balance from **Firestore**. Shows progress report, new drills, financial transaction on user dashboard & notifications. Leverages **Firebase Cloud Messaging (FCM)** for sending real-time updates and payment notifications.

Phase 3: Security & Performance Optimization Once the application has been built, it is time to secure the application and enhance its performance **Data Security:** **Firebase** provides end-to-end encryption for the user authentication and storage of data It uses **PCI DSS** compliance to secure your payment transactions. The first one offers enjoys the performance optimization features of real-time **Firestore's** data syncing Are you using ink drawings to verify fast and responsive applications? **Scalability & Future Enhancements:** **Cloud-based** architecture enables to scale as the need to grow as the user base increase. Future updates could also include social engagement features, **AI-based** personalized drills and leaderboard rankings.

Additional Features:

Transaction History: Users can read the date, amount, and payment details for all transactions.

Booking History: Log of previous bookings and their statuses (e.g., Pending, Done)

Wallet System: Users can load their benevolences, check balance, and pay effortlessly.

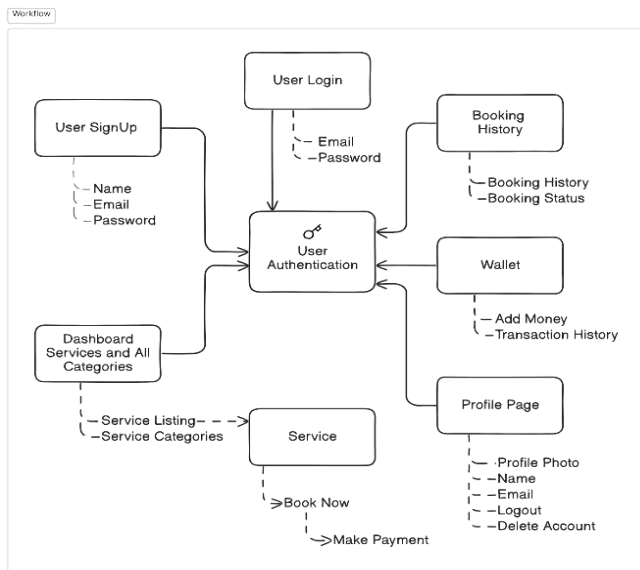


Fig. 3.1 Workflow

4. IMPLEMENTATION:

A. Create Objectives and Requirements

Daily Drill Daily Problem Service Provider app aims to create a platform which is integrated secure and efficient to connect users with different service personnel in case of any home-related work and tech repair. Users should have an easy interface to access and manage booking, tracking for services like cleaning, laundry, electric work, bike repair, laptop repair, plumbing service, AC repair, TV repair, painting, furniture services, etc. This requires a very solid backend for the platform, a frontend that can scale, secure payment processing as well as efficient user management.

B. Select Hardware Setup

To enable smooth development and deployment, high-performance development machines are needed:

- Processor: An Intel i5 or equivalent at minimum
- Ram : 8GB – 16 GB to run them in smoothly
- Storage: SSD for faster read/write operations
- Network: Fast internet connection allows updating in real-time and interacting with APIs and enables secure transactions

That is a predefined hardware arrangement in which the app runs smoothly during development, testing, and production.

C. Select Software Setup

The software stack is built to deliver a scalable, responsive, secure service experience:

- Frontend: Flutter for a cross platform experience for android and iOS
- Backend: Firebase (Firestore) as Ffirebase, authentication
- Auth: Firebase Authentication as a secure way to log in users
- Payments: Seamless & secure transactions using Stripe Payment Gateway
- Wallet & Transactions: Provide a wallet system and transaction history tracking for effortless payments and refunds

With this software configuration, a fast, secure, and scalable user experience is guaranteed.

D. Coding and Development

The Daily Drill Daily Problem Service Provider app is implemented with an emphasis on performance, security, and usability:

- User Interface (UI): The user interface is developed using Flutter providing a responsive and attractive design
- Real-time Data Management: Firestore allows real-time updating of service requests, payments, and order tracking
- Authentication & Security: Firebase Authentication providing role-based access control (User/Admin) to operate secure login and transactions
- Payment Processing: Stripe API allows secure wallet transactions, refunds, and order payments
- Service Management: Admin panel provides tools to manage service categories, providers, and user requests

The incorporation of some of these technologies into the platform guarantees seamless booking, secured transactions and better service management.

E. Deployment and Monitoring

- The application is set up and deployed on local devices for testing as well as for backend operations on Firebase Hosting

- Tools which are used to testing performance, security, real-time data handling
- Data up to October 2023 — Future integration with AI-based recommendations can make the service even more efficient

instantly. The Stripe Payment Gateway also enables secure payments via wallets, helping businesses complete transactions quickly. Moreover, the admin panel provides the capability to efficiently manage services and users, guaranteeing seamless operation. Combined, these technologies provide a robust, user-friendly, and scalable service ecosystem that positions Daily Drill as the leading provider of on-demand home services.

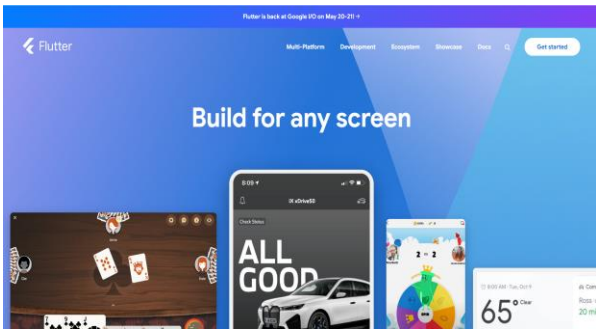


Fig C.1 Flutter

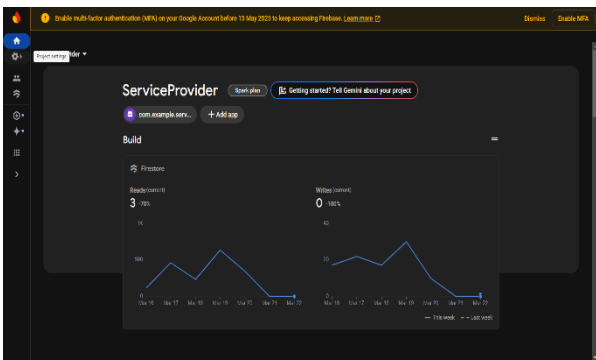


Fig C.2 Firebase

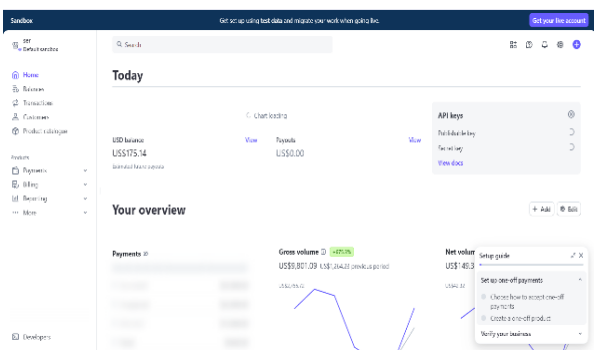


Fig C.3 Stripe Payment Gateway

5. Result

The Daily Drill Daily Problem Service Provider successfully enables service booking, secure payments and user convenience. They can easily order home services, track the order live, and pay securely directly from the platform. Using Firebase Authentication to login user securely and based on their role, Firestore to handle integrated order management and sync data

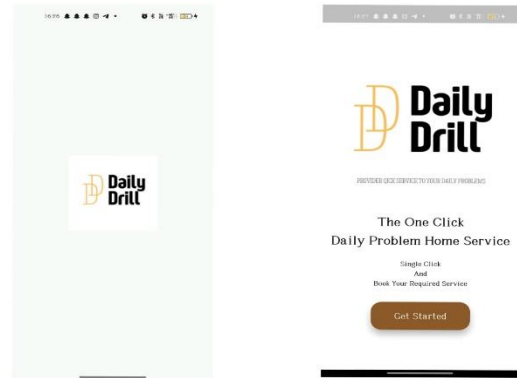


Fig 5.1 Splash Screen And Onboarding Page

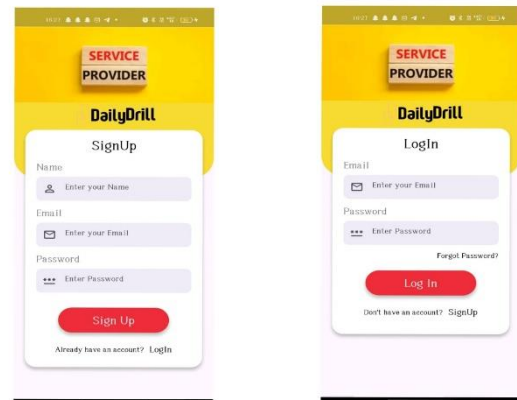


Fig 5.2 SignUp And Login

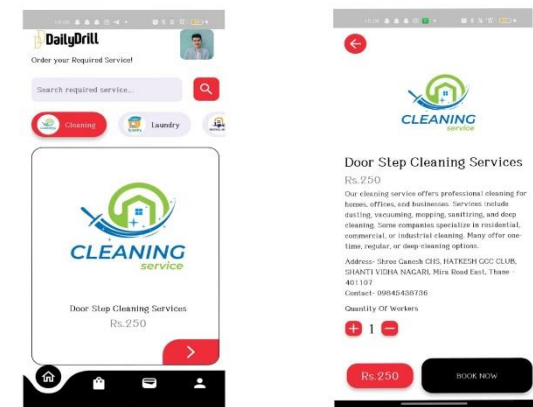


Fig 5.3 Dashboard and Service Page

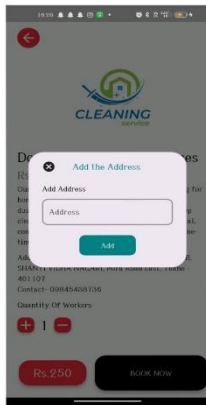


Fig 5.4 Address And Booking History Page

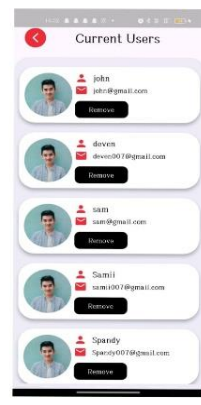
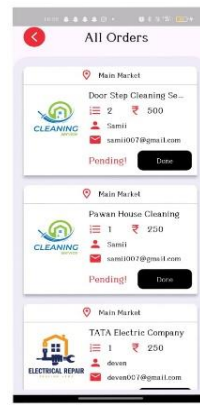


Fig 5.7 Manage Orders And Manage User Page

6. CONCLUSIONS:

All, bringing innovation to Doorstep, the digital services of the New Age home, the Daily Drill Daily Problem Service Provider makes the availability of users to on-demand home and technical services easy, smooth and efficient. By allowing users to book services such as cleaning, plumbing, electrical repairs, bike and laptop repair, AC and TV, painting, and furniture services through just a few taps via real-time service tracking, secure payment processing, and a simple interface. Firebase Authentication and Firestore keep user data safe and orders updated in real time, while Stripe Payment Gateway allows easy and secure transactions. The wallet system with transaction history makes it easier to pay with financial transparency. The admin panel also offers efficient service and management of users, allowing for smooth operations and scalability. Daily Drill represents a new standard in the on demand service platforms by connecting users with skilled professionals through a user-centric design, robust Fig 5.4 Wallet And Transaction Page security, and a scalable architecture. With continued advancements to the platform, upcoming features such as AI-driven service suggestions, automated scheduling and additional service categories will further streamline the user journey, positioning Daily Drill as the go-to solution for every home service requirement.



Fig 5.5 Wallet And Transaction Page

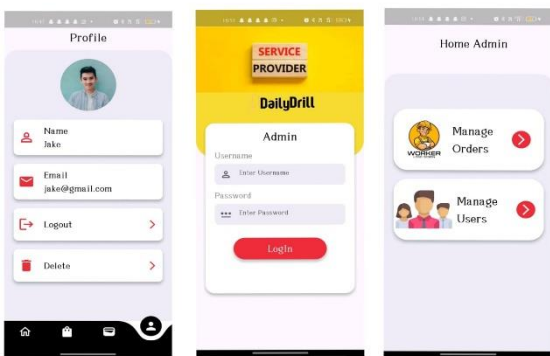


Fig 5.6 Profile, Admin login And Admin Home Page

7. Acknowledgement

Simply thank you for each and every individual who were a part of making this successful project, Daily Drill Daily Problem Service Provider come true. We also thank our guide, Mrs. Poonam Jadhav for keeping us always on track and guiding us for the whole project work. The team's generated insights have been useful in bringing the project to its ground up form as a solid and optimized platform. Special thanks to our Head of Department Mrs. Poonam Jadhav for her suggestions, motivation which redirect our effort towards this

approach and extra features into the application. Final, thanks to our friends, family and peers for your constant support and encouragement. We were propelled throughout this journey because of their motivation in our endeavors. We're excited to launch this project into the public domain with the hope that it will help to streamline and enhance on-demand tech in home services while also serving as a testament to the power of dedication, teamwork and ingenuity.

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