

# Laundry Service Mobile App – Phase I

## Project Overview

A digital-first laundry service provider engaged our team to develop a **Laundry Service Mobile App**, streamlining the laundry booking process for customers, drivers, and administrators. The application aims to enhance user experience, improve service efficiency, and integrate automated scheduling and payment processing.

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## Problem Statement

### As-Is State:

- Manual laundry booking process with inconsistent pickup scheduling.
- Lack of a centralized platform for tracking orders and payments.
- Limited subscription management capabilities.
- Inefficient driver and customer communication, leading to service delays.

### To-Be State:

- A seamless mobile application with **automated order scheduling and tracking**.
  - Subscription-based service model for repeat customers.
  - Integrated payment gateways for a cashless experience.
  - Real-time driver tracking and push notifications for customer updates.
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## Solution Provided

### Technologies Used:

- **Mobile App:** Android (Kotlin), iOS (Swift)
- **Backend:** Node.js, Spring Boot
- **Database:** MySQL, Firebase
- **Cloud Hosting:** AWS
- **Authentication:** Google & Apple SSO, OTP-based login
- **Payments:** Stripe, Apple Pay, Google Pay
- **Maps & Routing:** Google Maps, Mapbox
- **Messaging & Support:** Twilio SMS, Zendesk

### Key Functionalities Implemented:

#### 1. Customer Application

- Easy order placement with primary and alternative pickup days.

- Subscription-based laundry plans (Weekly/Bi-weekly).
- Secure payment processing and order tracking.
- Notifications for order updates and payment completion.
- Address validation and geolocation-based service availability.

## **2. Driver Application**

- Route optimization for efficient pickup and delivery.
- QR code scanning for bag pickup confirmation.
- Real-time customer updates for delivery scheduling.
- Automated status updates upon order fulfillment.

## **3. Admin Dashboard**

- Customer and driver management interface.
- Subscription and one-time order tracking.
- Automated invoice generation and transaction reports.
- Integration with Zendesk for support ticketing.

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# **User Workflow**

## **New Customer Journey**

1. Splash screen with signup/login options.
2. Location verification for service availability.
3. Profile setup with name, email, and address.
4. Order scheduling with an option for emergency pickup.
5. Secure payment processing.
6. Order confirmation and tracking updates.

## **Existing Customer Journey**

1. Login via Email, Google, or Apple SSO.
2. Dashboard displaying current order status.
3. Subscription plan selection (weekly/bi-weekly).
4. Order scheduling based on subscription preferences.
5. Payment processing and order confirmation.
6. Real-time tracking and notifications.

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# **Implementation Strategy**

## **Agile Development Approach**

- **Sprint Planning & Execution:** Bi-weekly sprint cycles.

- **Task Tracking & Documentation:** Managed via **Jira & Confluence**.
- **Regular Status Reviews:** Weekly meetings and monthly feature releases.
- **UAT & Stakeholder Feedback:** Continuous improvement based on testing outcomes.

## Project Phases

1. **Requirement Analysis & Wireframing** – Conducted user research, designed UI wireframes in Figma.
  2. **App Development & System Integration** – Built core functionalities and API integrations.
  3. **Testing & Quality Assurance** – Conducted usability testing and security audits.
  4. **Deployment & Data Migration** – Launched the app with structured onboarding.
  5. **Post-Deployment Monitoring & Enhancements** – Ongoing improvements and user engagement tracking.
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## Project Deliverables

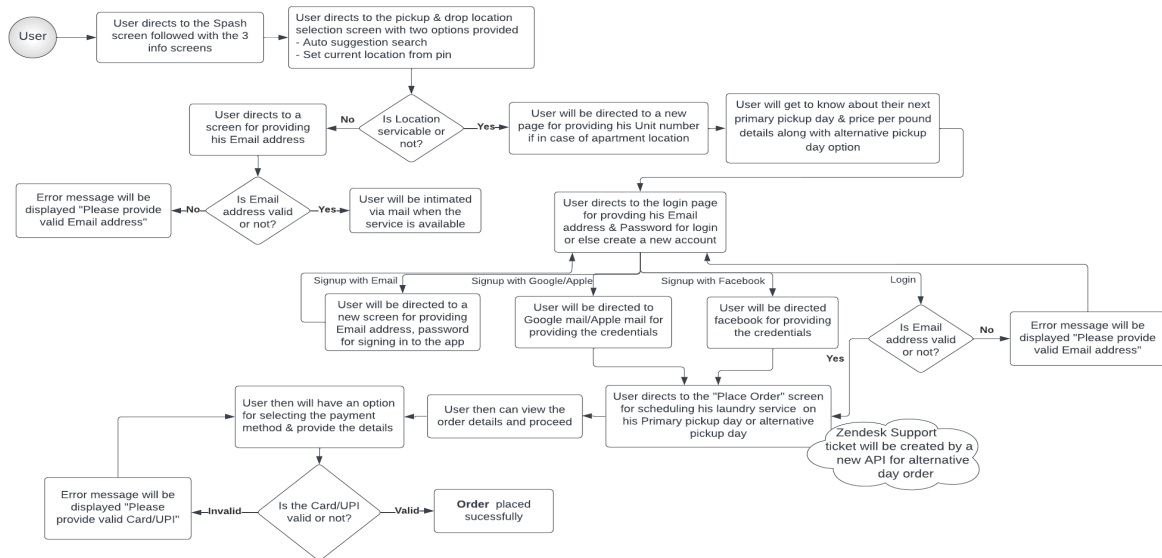
- **Laundry Service Mobile App (iOS & Android).**
  - **Admin Dashboard with Order & Subscription Management.**
  - **Payment Gateway & Transaction Reports.**
  - **Customer Support Integration via Zendesk.**
  - **Comprehensive User Training & Documentation.**
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## Risk Mitigation Strategies

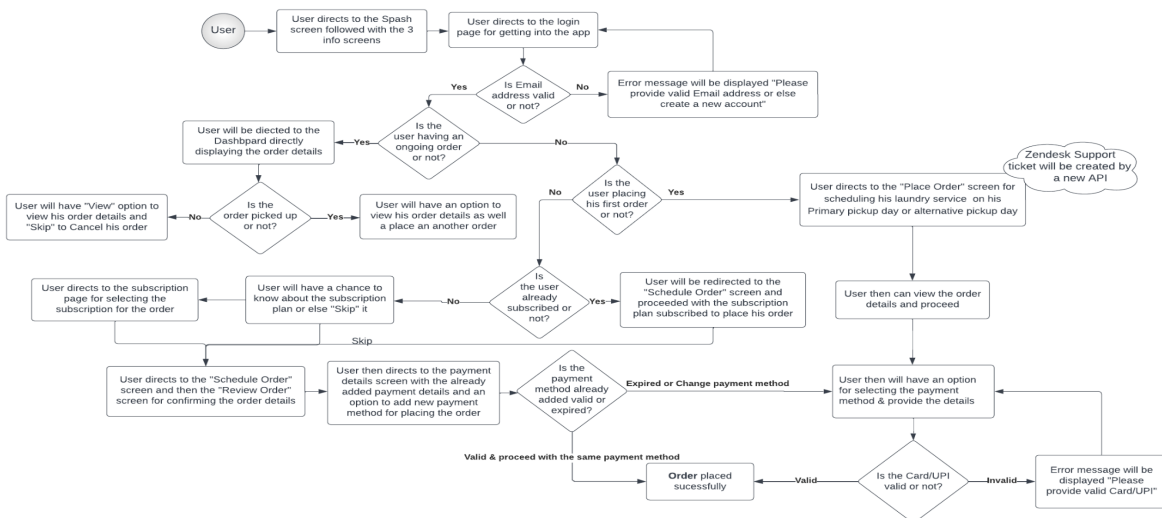
- **Service Availability Validation:** Ensured accurate location-based availability.
  - **Security & Compliance:** Implemented encryption and GDPR-compliant data handling.
  - **Performance Optimization:** Scaled backend infrastructure to handle peak demand.
  - **Real-Time Notifications:** Minimized missed pickups through proactive alerts.
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## Diagrams & Workflows

### For New Users:



## For Existing Users:



## Conclusion

The **Laundry Service Mobile App** successfully streamlined the laundry booking experience for customers, improved driver efficiency, and enabled administrators to manage operations effortlessly. The solution delivers a **user-friendly, secure, and scalable** service model for modern digital laundry businesses.