Smart Card for Pocket Money

Overview:

The project involved developing a Smart card to manage offline and online expenses for children. The client approached Mindfire to build a solution that would help them issue Smart cards, manage top-ups, and set pocket money. Additionally, functionalities like goals and rewards for task completion can be set by the parent or child. After analyzing the client's need, Mindfire offered to develop a solution in .Net and Android. This project helped the client to increase their online presence and improve their cross-sell opportunities.

Client details:

Name: Confidential | **Industry:** Financial & Information | **Location:** India

Technologies:

PHP, Android Studio, Visual Studio , SQL Server , AWS, Core .Net Web API , Redis Cache, Kiabna, Grafana, Paytm SDK
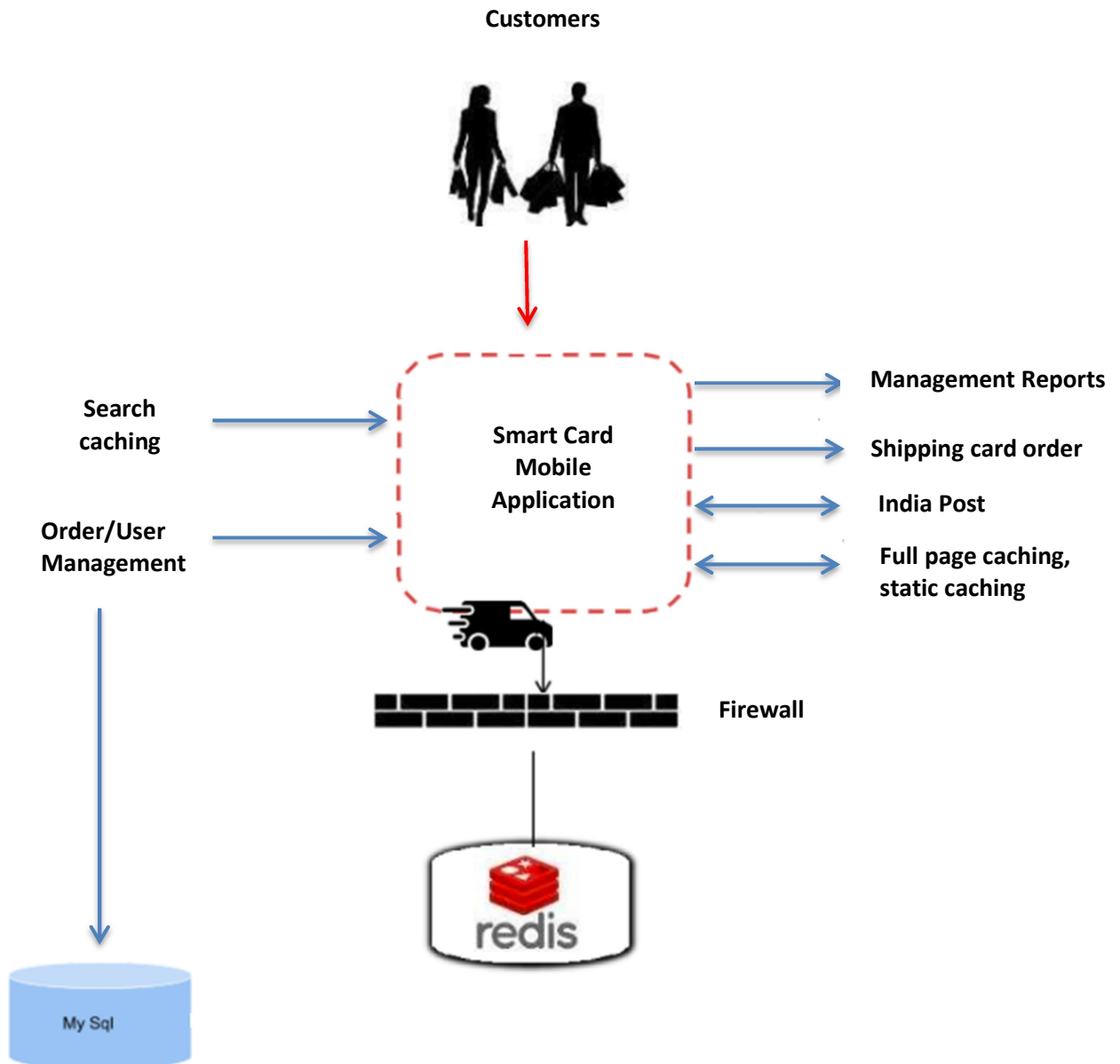
Project Description:

This application helped the client become a front runner in the online and offline space for Smart cards and help them meet the evolving need for financial accountability and budgeting in children. The primary intent was to develop a comprehensive solution with features to address the client's requirements and the ability to scale up effortlessly when required. Some salient features of the application:
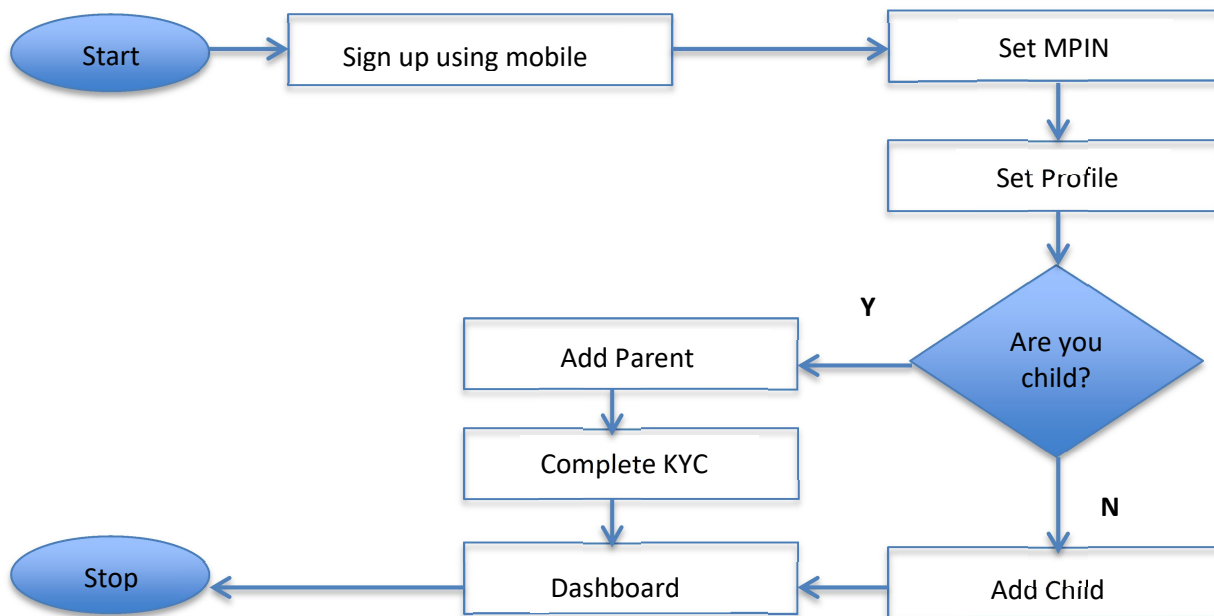
- The parent/user can sign up and set the MPIN for the account. The next step is to update the profile and KYC Details. After the KYC is approved, users can view the dashboard, add details of their children. For each child, they can assign pocket money and set goals and rewards.

- The user can view the dashboard to track the account balance and place new orders.

- After the application's launch, the Marketing team spent most of their time tracking online/offline expenses. To improve operational efficiency, the team integrated Grafna and Metabase to synchronize payment data of users, merchants. Extensions were created to measure demand for card orders, money additions, etc.

- Child lists on the dashboard help provide a better user experience by setting goals/tasks/pocket money/order cards.

- The addresses can be auto-completed while the customer is in one order screen. It was achieved with the creation of an extension that used Google Geolocation and India post API for auto-filling addresses.

- Cashback functionality on online and offline transactions so that users can learn financial accountability from a young age. Additionally, users can refer and earn when new members join.

- Faster page load was achieved by performance optimization measures implemented on front-end. Additionally, the screens were customized and, KYC Process was improvised to reduce the overall steps.

- Being a high traffic smart card issuance app, it was required to keep the server load low and avoid downtime during high-traffic. It was implemented by full-page caching, and subsequent page loads did not require server load.
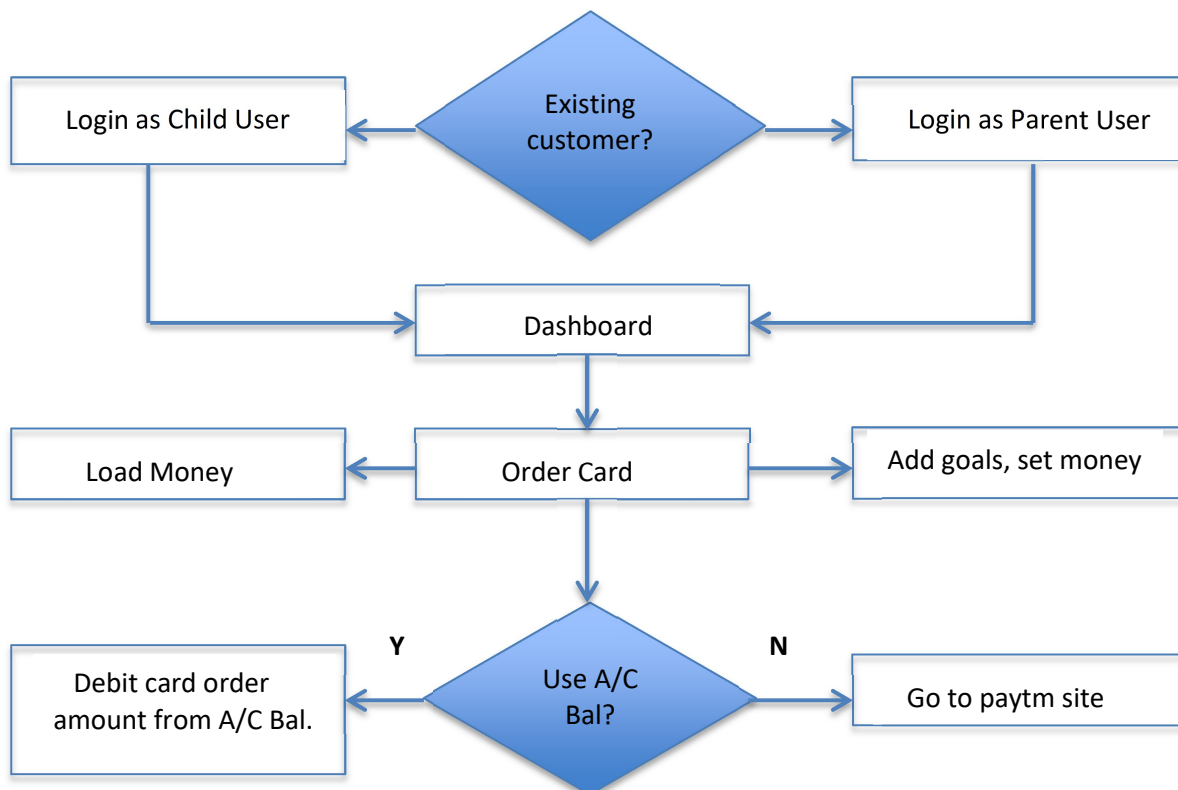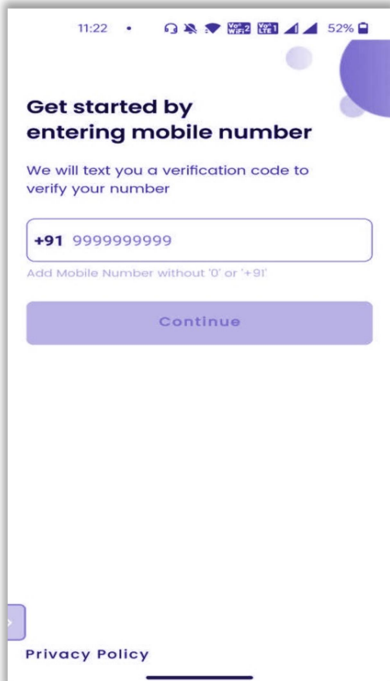
Architecture:

Customers

Search caching →

Order/User Management →

Smart Card Mobile Application

→ **Management Reports**

→ **Shipping card order**

↔ **India Post**

↔ **Full page caching, static caching**

Firewall

redis

My Sql

Smart Card for Pocket Money

mindfire

Flow Diagram: Sign In

```
  Start  ──→  Sign up using mobile  ──→  Set MPIN
                                            │
                                            ▼
                                        Set Profile
                                            │
                                            ▼
   Add Parent  ←──Y── ◇ Are you child? ◇
       │                                    │ N
       ▼                                    ▼
  Complete KYC                          Add Child
       │                                    │
       ▼                                    ▼
   Stop  ←──  Dashboard  ←──────────────────┘
```

Flow Diagram: Load Money

```
  Login as Child User  ←──  ◇ Existing customer? ◇  ──→  Login as Parent User
           │                                                      │
           └──────────────→  Dashboard  ←──────────────────────────┘
                                 │
                                 ▼
  Load Money  ←──  Order Card  ──→  Add goals, set money
                       │
                       ▼
              ◇ Use A/C Bal? ◇
         Y ↙                  ↘ N
  Debit card order                Go to paytm site
  amount from A/C Bal.
```
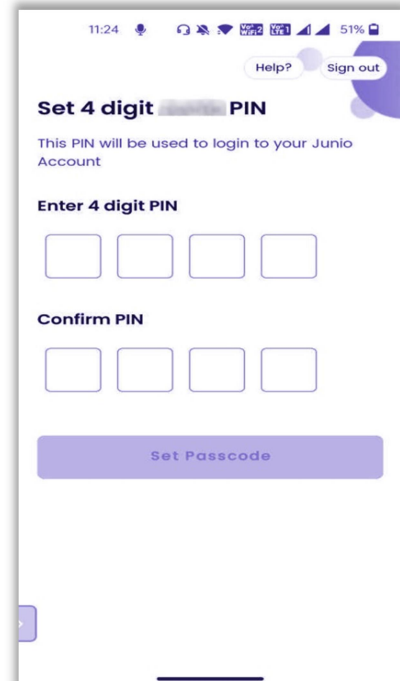
Screenshots

Screenshot 2: Sign Up
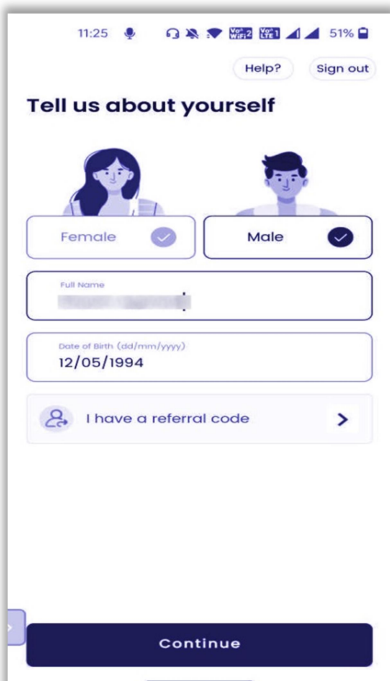
Screenshot 2: Set MPIN
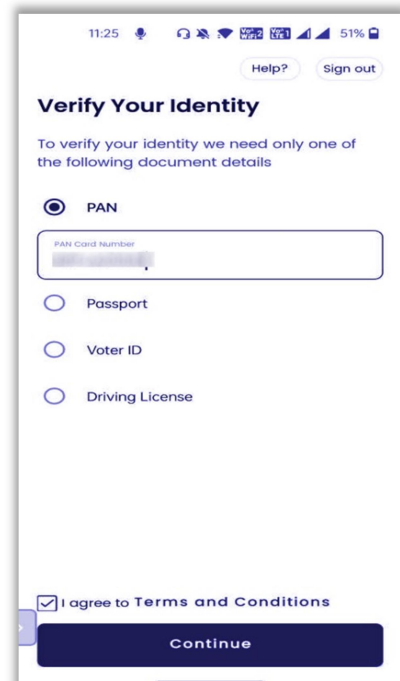
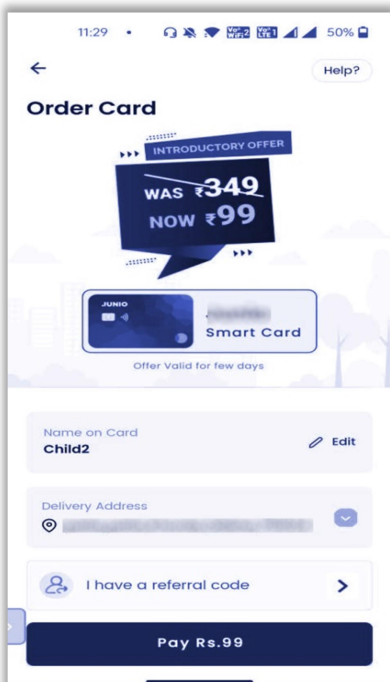**Screenshot 3:** Profile Update

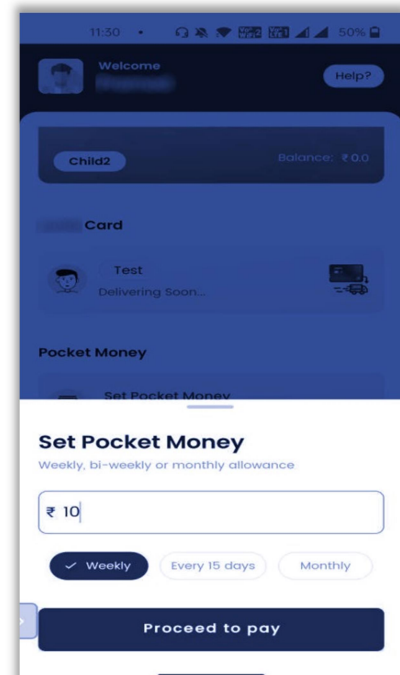
Screenshot 4: KYC Update
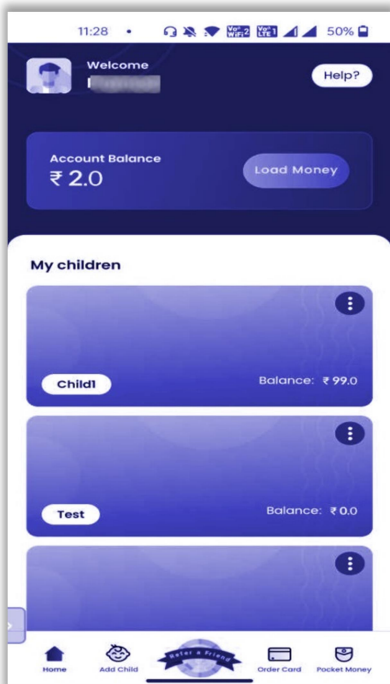
Screenshot 5: Dashboard View
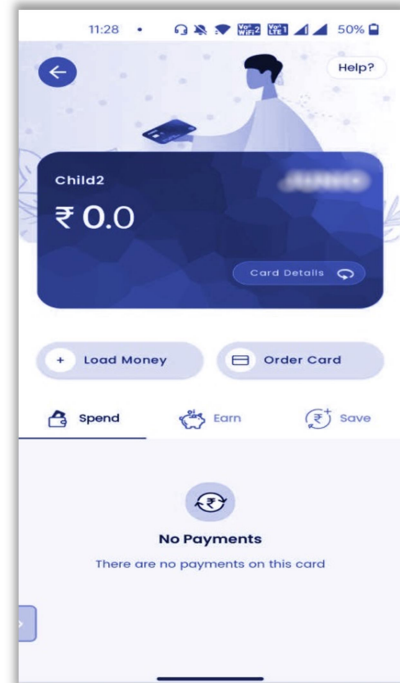
Screenshot 6: Children Details

Screenshot 7: Order Card

Screenshot 8: Set Pocket Money