Mobile Payment Application for Travelers

The e-Wallet can be used for government and non-government service purchases and cash withdrawals at select merchant locations withdrawals at select merchant locations.

Project Overview

A mobile payment application that supports money transfers between individuals and businesses. The application can be used for payment of government and non-government service fees in a safe and secure way. It serves as an e-Wallet for virtual prepaid cards and is recognized throughout the region as the official payment application for tourists.

Client Profile

As the Finance Ministry of a popular trading and tourism destination in the Middle East, our client is responsible for preparing the annual federal budget of the nation. They also ensure cooperation between national, regional, and international organizations in the financial and economic domains.

Business Requirements

The client wanted to digitize prepaid card services and processes to ensure greater transparency and enhanced user experience. The client envisaged a digital payment solution that would enable tourists and visitors to perform financial transactions on the go.

- Offer visual and functional similarity to the web platform
- Offline transaction data capture and sync
- Device compatibility for existing and next-generation devices
- Unified user experience, data encryption, and validation
- User and transaction management
- Meet global compliance norms to check fraud, tax evasion, and money laundering

Solution

The mobile application interacts with the e-Wallet mobile backend to perform the tasks needed for executing electronic payments through a secure channel. The mobile backend uses a RESTful web service model and messages are supported in JSON format. The communication between the mobile application and the backend uses HTTPS post.
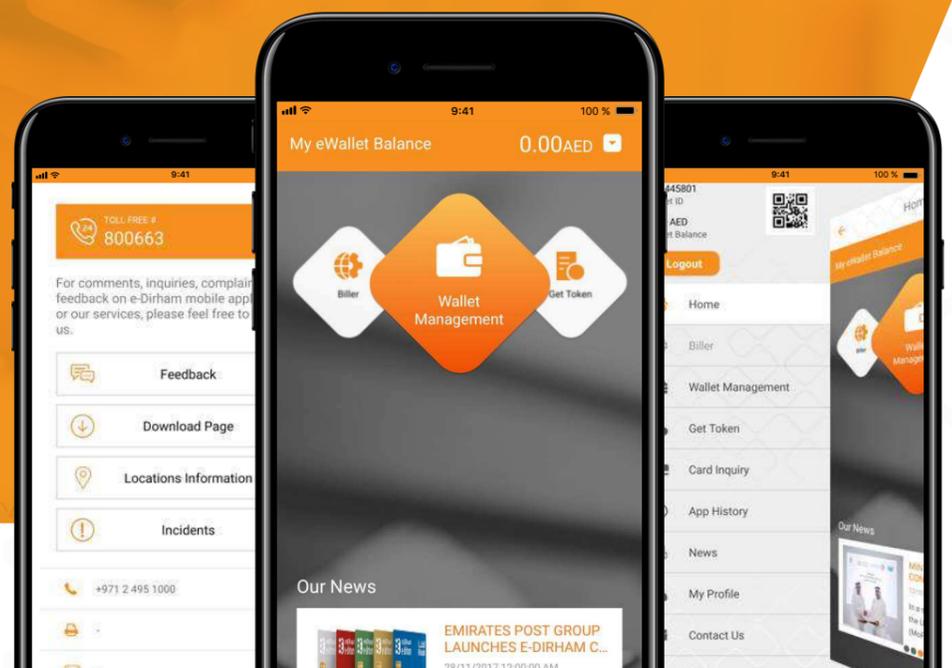
The mobile application:

◆ Performs real-time validations to check uniqueness of mobile numbers/usernames

◆ Creates and allocates virtual prepaid cards for each e-Wallet account

◆ Constructs and submits a request consisting of predefined parameters in the required format to integrate with e-Wallet mobile backend system

◆ Parses the responses received from e-Wallet mobile backend system containing transaction status

◆ Defines path (URL) for sending and receiving transactions

In order to maintain security during the login process, the password and OAuth token are encrypted. These values are encrypted using the pre-shared merchant (entity) key which is only known to the client and the entity backend.

The application also integrates Visa's 3-D Secure™ protocol to improve the security of Internet payments. This ensures hassle-free authentication of cardholders, reducing the likelihood of misuse while improving overall transaction performance.

Key **Features**

◆ Set up virtual payment card

◆ Add and manage prepaid cards

◆ Transfer money between cards

◆ Online payments (schedule and enable automatic payments)

◆ Access account details and statements

◆ Quick access menu for transactions

◆ Set and change default payment method

◆ Cancel pending payments/transfers

◆ News feed service

◆ Advertisements panel

◆ Mobile top-up

◆ View currency exchange rates

Technologies

- iOS SDK
- Android SDK

Business Benefits

- Card portfolio growth rate increased by 8%
- Enhanced visibility into financial transactions
- Instances of card loss/theft reduced by 14%
- 32% increase in overall user satisfaction rate
- Increased user retention rate

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