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**Problem Statement – DigiPay**

With the increasing adoption of digital transactions, users require a secure, efficient, and feature-rich payment platform that streamlines financial operations. DigiPay aims to provide an all-in-one solution for digital transactions, integrating multiple financial services while ensuring ease of use and security.

The platform will include a secure login system with authentication mechanisms such as phone number, password, and OTP verification to enhance security. Users will be able to conduct seamless transactions through multiple payment options, including sending and receiving money via QR code, UPI code, bank accounts, wallets, debit/credit cards, and other digital methods. Additionally, features such as checking balance, fund transfers, and transaction history tracking will be available for user convenience.

Beyond standard payments, DigiPay will offer value-added services such as loan processing, mobile recharge, bill payments, insurance management, digital gold transactions, ticket bookings, FASTag services, and investment options in stocks, mutual funds, and other financial instruments. To enhance user engagement, the platform will also incorporate reward mechanisms like cashback offers, discounts, referral programs, and loyalty rewards.

The key challenge is to develop an intuitive, highly secure, and scalable system that efficiently handles large volumes of transactions while maintaining compliance with financial regulations. The system should ensure data encryption, fraud prevention, and seamless user experience while integrating multiple financial services into a unified platform.

The objective of this project is to design and implement DigiPay, a robust digital payment system that simplifies financial transactions while ensuring security, efficiency, and user satisfaction.

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1.5 References

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2.2 Product Functions

2.3 User Classes and Characteristics

2.4 Operating Environment

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Let me know if you need any further formatting or modifications!

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**5.** **Other Nonfunctional Requirements**

5.1 Performance Requirements

5.2 Security Requirements

5.3 Safety Requirements

5.4 Software Quality Attributes

5.5 Business Rules

**6.** **Other Requirements**

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**Software Requirements Specification - DigiPay**

**1. Introduction**

DigiPay is a comprehensive digital payment platform that enables users to perform a wide range of financial transactions securely and efficiently. It integrates various financial services, including mobile recharges, bill payments, loan processing, and investment options, into a unified digital platform, ensuring user convenience and security.

1.1 Purpose

This document serves as the Software Requirements Specification (SRS) for the DigiPay platform. It is intended for:

* Developers, for software development and future releases.
* Documentation writers, for creating user manuals and guides.
* Management, for overseeing the development and deployment.
* Testers, for validating the system and ensuring the application meets all requirements.

1.2 Scope

DigiPay is a digital payment platform that supports multiple payment methods, such as UPI, QR codes, wallets, and debit/credit cards. It also includes value-added services such as bill payments, loan processing, and investments. The platform offers features like transaction history, balance checks, and fraud prevention mechanisms.

The software will be developed within a 6-month period, and the estimated cost for development is ₹50 lakhs.

1.3 Definitions, Acronyms, and Abbreviations

* OTP: One-Time Password.
* UPI: Unified Payments Interface.
* API: Application Programming Interface.
* KYC: Know Your Customer.
* AES: Advanced Encryption Standard.
* DBMS: Database Management System.

Section 2: Describes the overall functionalities, constraints, and user characteristics of DigiPay.

Section 3: Lists the system features, including functional and non-functional requirements.

Section 4: Details external interface requirements such as user interface and communication protocols.

2. The Overall Description

2.1 Product Perspective

DigiPay is a cloud-based system that integrates multiple financial services. It allows users to send and receive payments, perform utility bill payments, recharge mobile phones, and access financial services. The platform also includes value-added features such as rewards, cashback offers, and financial planning tools.

The system includes the following key components:

User Interface: Mobile and web-based applications.

Payment Gateway: Integrates with UPI, debit/credit cards, and wallets.

Authentication System: Secure login with OTP and two-factor authentication.

Transaction System: Handles payment processing, fund transfers, and transaction tracking.

Rewards System: Offers discounts, cashback, and loyalty rewards.

2.2 Product Functions

The major functions that DigiPay performs are:

User Authentication: Users can log in using their phone number, password, and OTP verification.

Fund Transfers: Users can send and receive money via UPI, QR code, bank accounts, and wallets.

Transaction History: The platform provides users with access to detailed transaction history.

Bill Payments: Users can pay utility bills, mobile recharges, and insurance premiums.

Financial Services: The platform facilitates loan processing, digital gold transactions, and investments in stocks and mutual funds.

Rewards and Offers: Users can earn cashback, discounts, and rewards for using the platform.

Balance Inquiry: Users can check their balance on linked bank accounts and wallets.

2.3 User Characteristics

User A: A first-time user who is not familiar with digital payments. The system will offer an intuitive interface with easy-to-follow instructions.

User B: A frequent user who has prior experience with digital payment platforms. The system will offer advanced features like transaction history and reward tracking.

Administrator: A platform admin responsible for managing user accounts, ensuring security, and overseeing platform maintenance. Admins will have access to advanced features for monitoring transactions and generating reports.

2.4 Constraints

The system must support at least 100,000 concurrent users.

The platform should support payments in multiple currencies and countries, adhering to local financial regulations.

The system must comply with GDPR and other financial regulations.

Payment processing time should not exceed 5 seconds for any transaction.

The system should ensure data encryption during all financial transactions using AES-256.

The platform must handle up to ₹10,00,000 in transactions per day without performance degradation.

2.5 Assumptions and Dependencies

The success of the project depends on timely integration with payment gateways and third-party APIs.

The platform relies on cloud services (e.g., AWS) for scalability.

The database will be managed using PostgreSQL or MySQL.

All users are expected to have access to a smartphone or computer with internet connectivity.

3. System Features

3.1 Functional Requirements

User Login and Authentication

Users will enter their phone number and password to log in.

OTP verification will be required for additional security.

Admin users will log in with a username and password for administrative access.

Transaction Management

Users can initiate payments using UPI, QR codes, and debit/credit cards.

Fund transfers can be completed between bank accounts, wallets, and linked payment methods.

Transactions will be processed securely and instantly.

Transaction History

Users can view a list of all transactions with timestamps, amounts, and statuses.

Filters will be available to search for specific transactions based on date or type.

Rewards and Offers

Users can view and redeem cashback offers and loyalty rewards.

Referral programs will be available for users to earn additional benefits.

Financial Services

The platform will provide tools for loan applications, bill payments, mobile recharges, and insurance management.

Investment features such as stocks and mutual funds will be available.

4. External Interface Requirements

4.1.1 User Interface Requirements

The system will have a responsive mobile and web-based interface, allowing users to perform transactions, check balances, and redeem rewards.

A multi-language option will be provided for users to select their preferred language for interaction.

4.1.2 Hardware Interface Requirements

The platform will be compatible with smartphones, tablets, and computers.

The system will interact with payment hardware (e.g., card readers for QR and UPI transactions) as needed.

4.1.3 Software Interface Requirements

The platform will integrate with various third-party APIs for payment processing, fraud prevention, and financial services.

4.1.4 Communication Interface Requirements

The platform will communicate securely with banks and payment gateways via HTTPS, ensuring all financial data is encrypted.

5. Other Non-Functional Requirements

5.1 Performance Requirements

The system should be able to handle at least 100,000 concurrent users.

Transaction response times should not exceed 5 seconds for any payment processing action.

The platform should be able to process a minimum of ₹10,00,000 worth of transactions per day.

5.2 Software System Attributes

Reliability: The platform should ensure high availability with 99.99% uptime.

Security: All data exchanges will use AES-256 encryption, and multi-factor authentication will be implemented for user access.

Maintainability: The system should be easily maintainable, with automatic alerts for failures and performance issues.

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1.4 References

The following references are used in the development of this SRS:

* [www.wikipedia.org](file:///C:\Users\nihal\AppData\Local\Microsoft\Windows\INetCache\IE\T4JWJX48\www.wikipedia.org)
* [www.technicaldocs.com](http://www.technicaldocs.com)

1.5 Overview

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