Documentation of UPI Payment System

Project Overview

 *Title: UPI PAYMENT SYSTEM(Phone Pe)

 ***Introduction:** PhonePe is a digital payments and financial services platform that facilitates a wide range of financial transactions. Built on the Unified Payments Interface (UPI) platform, PhonePe allows users to send and receive money, pay utility bills,recharge mobile and DTH services, and make in-store payments through QR codes. The app also supports online shopping payments. A unique UPI ID and PIN are created for secure transactions. Users can perform transactions by selecting the recipient, entering the amount, and authenticating with the UPI PIN. PhonePe ensures secure transactions through data encryption and robust authentication processes.

*Goals and Objectives: The primary goal of creating a UPI payment application is to provide users with a seamless and secure platform for digital transactions. The objectives include enabling instant money transfers between bank accounts, facilitating bill payments and mobile recharges, and offering a user-friendly interface for easy navigation. The app aims to integrate robust security measures, including authentication and encryption, to protect user data and transactions. Additionally, the application seeks to support multiple languages and ensure compatibility across various devices to reach a broad audience. By achieving these objectives, the UPI payment application strives to enhance the convenience and accessibility of digital payments for users.

Project Plan:

 *Timeline : Creating a PhonePe-like application involves several key phases with specific timelines.

Planning and Research (1-3 weeks): Define the project scope, goals, and objectives. Conduct market research and gather requirements from stakeholders.

Design Phase (1-2 weeks): Create wireframes, user interface (UI) designs, and user experience (UX) flowcharts. Finalize the design after feedback and revisions.

Backend Development (4-6weeks): Set up the development_tenvironment, create RESTful APIs, and implement core functionalities using Java Spring Boot. Integrate database management and security features.

Frontend Development (2-3 weeks): Develop the user interface using HTML, CSS, JavaScript, and frameworks like Angular or React. Integrate the frontend with backend APIs.

Payment Gateway Integration (1-2 weeks): Integrate UPI payment functionality and any additional payment gateways. Ensure secure transaction processing.

Testing Phase (1-3 weeks): Conduct unit testing, integration testing, and user acceptance testing (UAT) to identify and fix any issues.

Deployment (Remains): Deploy the application to a cloud service like AWS or Heroku. Ensure the app is scalable and reliable.

*Tasks and Deliverables: PhonePe, as a digital payments platform, has several key goals and objectives aimed at simplifying financial transactions for users while driving growth in the fintech ecosystem.

(i)Promote Digital Payments Adoption

(ii)Expand Service Offerings

(iii)Offer Seamless UPI Integration

(iv)Enhance Financial Inclusion

(v)Enhance Security and Trust

(vi)Drive Financial Literacy

*Resources: Java and Bootstrap

*Project Roles:

Team Members: Utkarsh Tripathi(Team Leader), Sarvesh Mishra, Shivam Yadav, Nandan Prakash.

Utkarsh Tripathi:- Backend

Sarvesh Mishra:- Frontend

Shivam Yadav:- Library and Framework

Nandan Prakash:- Presentation and Research