**Problem Statement: Digital Payment System**

* A **fintech company** wants to build a **digital payment system** that allows users to:
  + **Transfer money** between wallets or bank accounts.
  + **Top up wallets** via bank transfers or cards.
  + **Process payments** for merchants securely.
  + **Detect fraudulent transactions** based on user behavior.
* The system must be **secure, scalable, and maintainable** while ensuring **seamless transactions** across different services.

# Strategic Design Principles

1. Ubiquitous Languages
   1. Transaction – A payment attempt by a user.
   2. Authorization – Request to reserve or validate funds.
   3. Refund – Reversal of completed transaction
   4. Marchant – A business entity accepting payments
   5. Payment Gateway – External service used for payment processing.
   6. Network – Make sure both business entities are alive.
2. Domain Analysis
   1. Core domains
      1. Transaction Management - Handling initiation, authorization, processing and settlement of payment. Failed transaction and refund.
   2. Supporting subdomains
      1. Customer Wallet management – Manage stored balances (add/transfer money) and loyalty points.
      2. Merchant Management – Manage merchant onboarding, configuration and settlements.
      3. Fraud detection – Risk scoring and fraud prevention.
   3. Generic subdomains
      1. Authentication and authorization
      2. Audit logs
      3. Notification system
      4. Currency Conversation services
3. Bounded Contexts
   1. Transaction context – Manages payment transaction lifecycle
   2. Wallet context – Manages customer wallets and loyalty balances
   3. Merchant context – Handles merchant setup, onboarding and settlements
   4. Fraud detection context – Calculate risk scores and flags suspicious transactions.
   5. Notification context – Sends alert for transaction events.
4. Context Mapping Workshop
   1. Purpose of the workshop
      1. Build a shared understanding of the bounded contexts.
      2. Identify relationships between different subdomains.
      3. Highlight integration points and communication patterns
      4. Align on team boundaries and responsibilities
   2. Pre-workshop preparation
      1. Stakeholders – Developers, architects, product managers, QA
      2. Input needed – System high level overview, domain experts for Q & A
   3. Workshop Agenda
      1. Context setting
         1. Define digital payment system mission
         2. Explain Domain driven design basic (if needed)
      2. Brainstorming on Bounded contexts / core domains
      3. Map context relationship

# Tactical Design Principles