Credit card system.

PaymentDetails
currency String
transactionfee float

Account
accountNumber int
balance float
creditLimit float
credit ( )
debit ( )
checkbalance ( )

accountHolder

linked (weak)

associateAccount (weak)

moves

Includes (strong)

makes

transaction made

Transaction
transactionID:
date   date
amount   float
status   String
processTransaction()
CancelTransaction()

card used No *

(strong

used

card processing

processed to transaction

processes

gateway processing

creditCard
cardnumber:int
ExpirationDate date
Securitycode String
validateCard ( )
blockCard ( )

PaymentGateway
gatewayID : int
providerName String
initiatePayment()
verifyPayment()

Sequence of Transaction

linked (weak
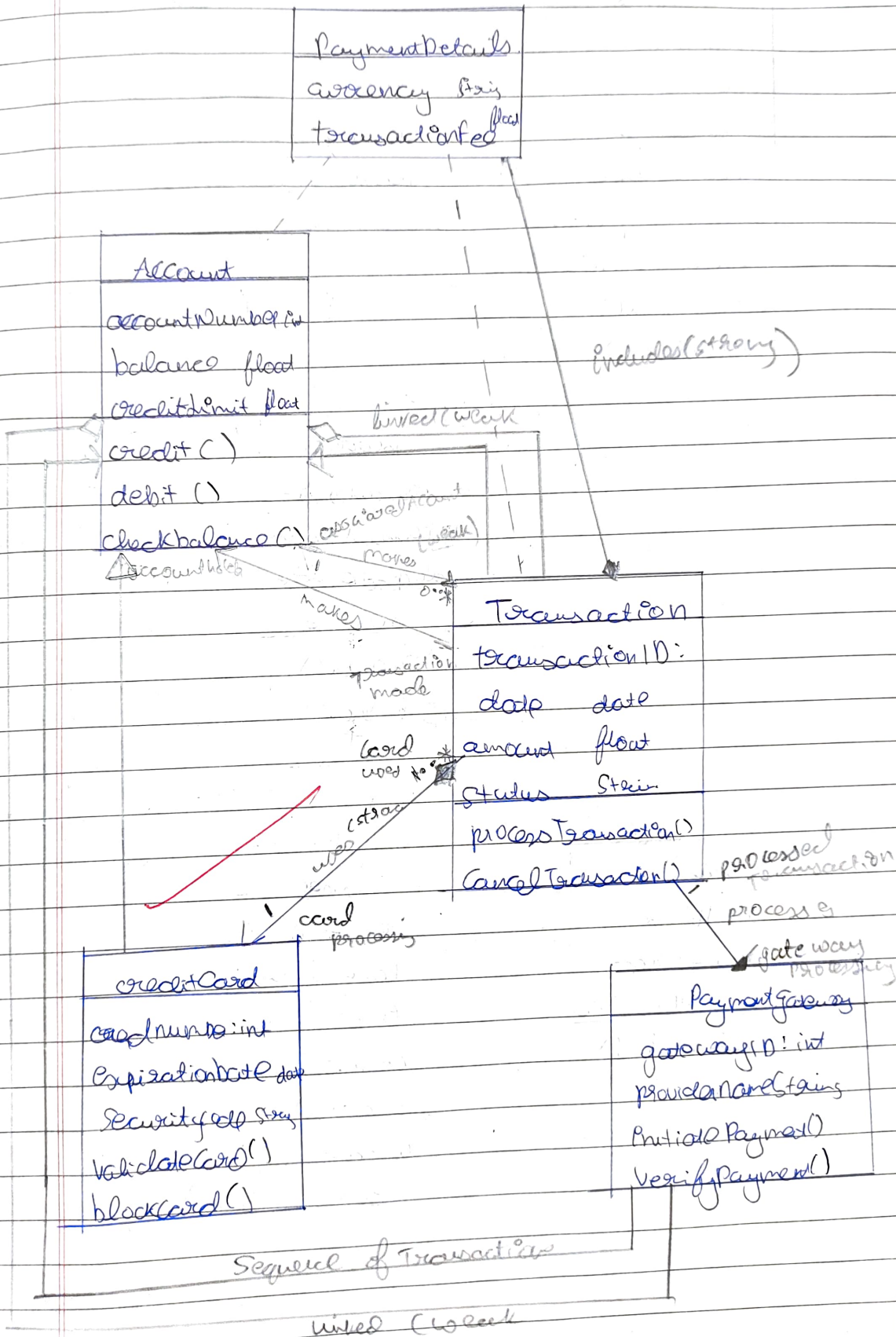
Reliability : Ensure system availability with minimal downtime.

Scalability: able to handle an increase in transaction volume.

preliminary Schedule and Budget:

Initial Budget : ₹ 5,00,000

Project duration : 4 months

Requirement gathering: 1

design : 1 month

development 1.5 month

Testing : 0.5 month.

3. functional requirements
1. Transaction processing : process creditcards
Securley

2. user authentication : verify user identity
before processing Transaction.

3. Transaction history : maintain user all records
of useage

4. Required processing : Allow merchants to
issue Refunds

5. Dispute management : provide functionality
for managing payment
disputes

4. Interface Requirements
The CCPS Interface is with
user interface web and mobile for merchant
and customer
payment gateway integrate various Credit
cards
Banking APIS for fund transfer and verification.

5. Performance a requirements
The system should:
process transaction within 2 Seconds.
handle up to 500 simultaneous transaction
Ensure 99.99 % Success rate

6 Design constraints
• must comply with PCI DSS standards, Develope
using .Net and SQL server Must operate on
cloud infrastructure.

7 Non functional requirements
Security : ent to end encryption & secure data
Storage

Software Requirement Specification of Credit Card processing System

1.1 Purpose of this document

This document outlines requirements for the credit card processing system (CCPS). It serves as a framework for developers and stakeholders to ensure alignment on system functionality and performance expectations.

1.2 Scope of this document

The CCPS will facilitate secure credit card transactions, providing functionalities for merchants customers. Estimated development cost is ₹10 50,000 with a time line of 4 months for project completion.

1.3 Overview

The credit card processing system is designed to process credit card transaction securely and efficiently, supporting various payment methods and ensuring compliance with industry Standards.

2 General description

The CCPS allows merchants to accept cc payments, manage transactions & process refunds. user characteristics include merchants administrators and customers. key features include: Secure payment processing. Transaction history tracking. Refund and dispute management. Enhancing transaction security and efficient payment experience to customers are few over significant goals.