Mobile banking with PayPal

Author: Ndlamlenze NS, Mr
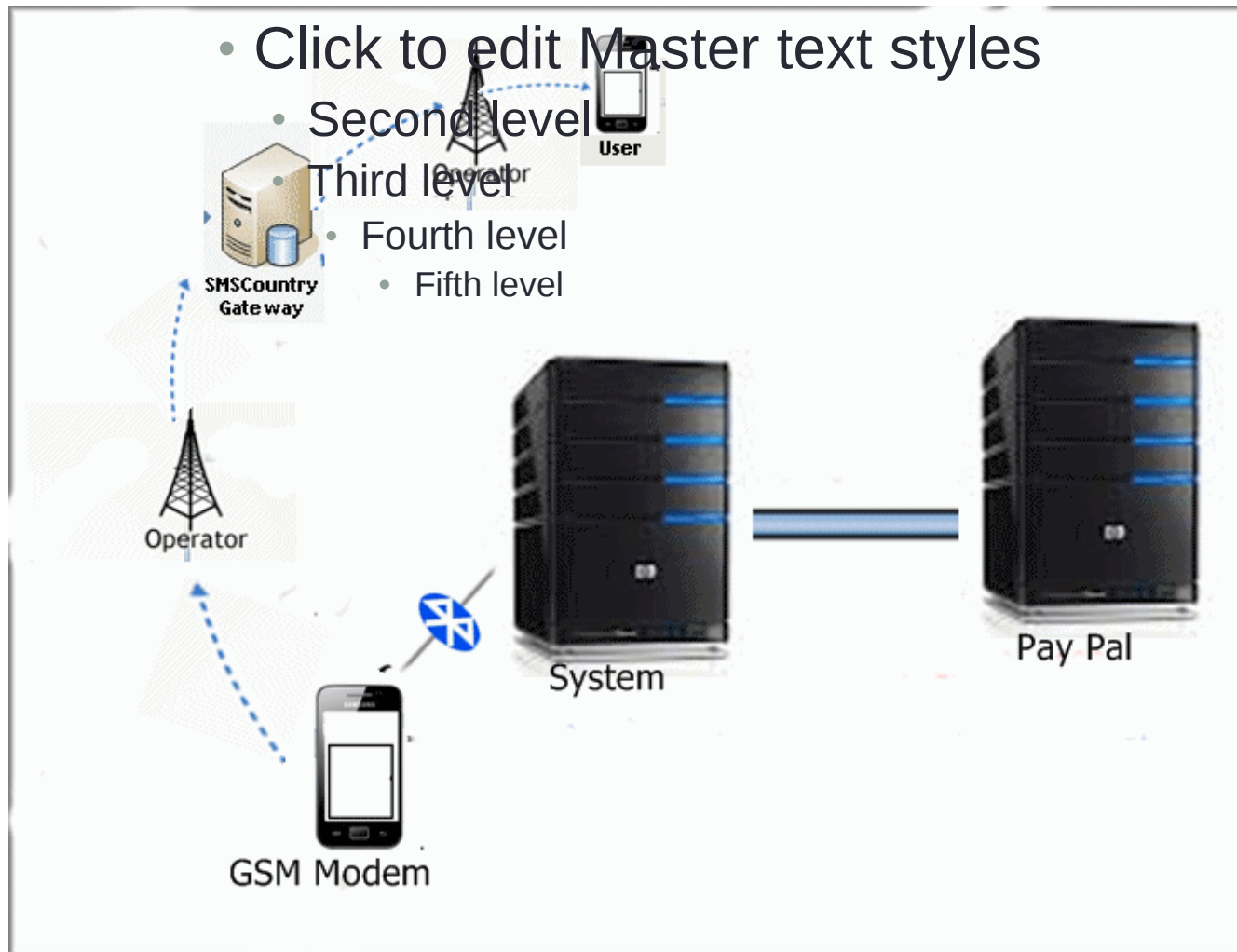Supervisor: Professor Isabella M Venter

Overview

- A brief description of the project

- User interface specification

- Object oriented analysis (OOA)

- Object oriented design (OOD)

- Demo of the prototype

A brief description of the project

The aim of the project is to provide an ability to pay the third party, by means of Short Message Service, for the unbanked.

Architectural Design Review

- Click to edit Master text styles
  - Second level
  - Third level
    - Fourth level
      - Fifth level

User interface specification

The end user will generate an SMS message that will determine the transaction type to the system.

Send => New money transfer function

- **Statement => Send a user's banking account statement**
- **Change => Update a user's account details**

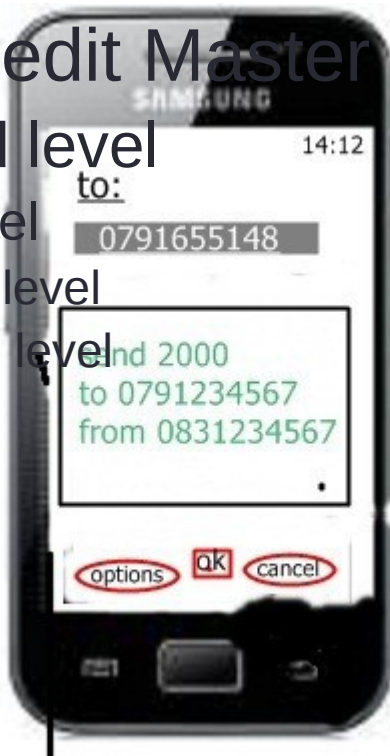# The administrative user will use a web based program that provides functions to:

Suspend user accounts

Update banking charges

Generate SMS messages to the end users

End User Input

- Click to edit Master text styles
  - Second level
  - Third level
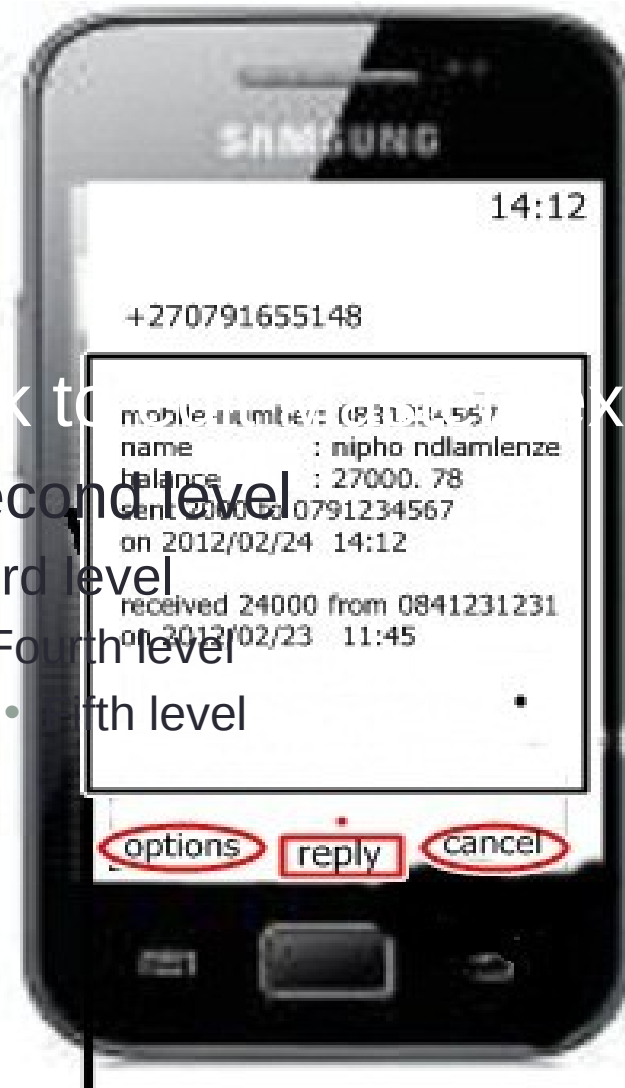   - Fourth level
      - Fifth level

End User Output

Scenario

A user has requested
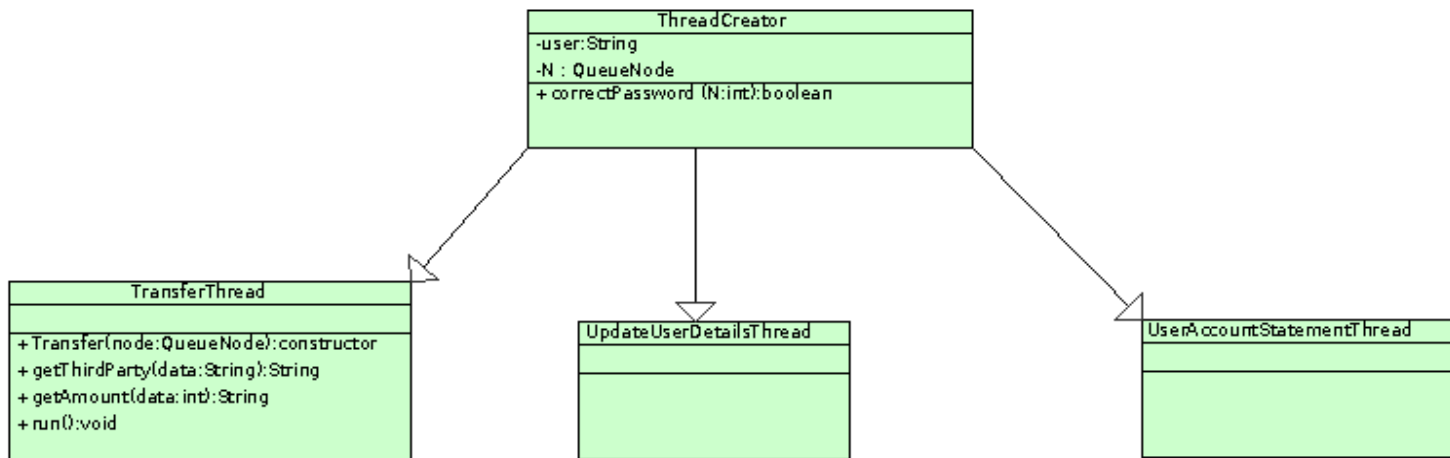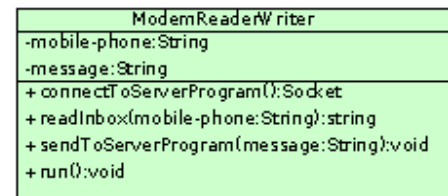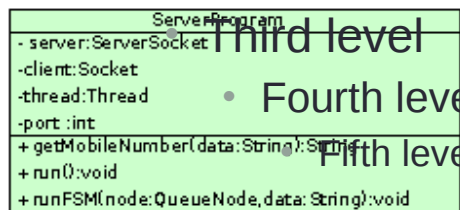the account banking
statement.

Technologies

- Linux Ubuntu 12.04 and Windows 7

- MySQL 5 and Apache 2.4

- Eclipse and NetBeans Java Developer Tools

- SMSC or SMS Gateway Emulator

- Android & Symbian S4O Device Emulators and SDKs

- Java J2EE and PhP Scripting Language

Class Models

ServerProgram
- - server:ServerSocket
- -client:Socket
- -thread:Thread
- -port :int
- + getMobileNumber(data:String):String
- + run():void
- + runFSM(node:QueueNode,data: String):void

ModemReaderWriter
- -mobile-phone:String
- -message:String
- + connectToServerProgram():Socket
- + readInbox(mobile-phone:String):string
- + sendToServerProgram(message:String):void
- + run():void

ThreadCreator
- -user:String
- -N : QueueNode
- + correctPassword (N:int):boolean

TransferThread
- +Transfer(node:QueueNode):constructor
- + getThirdParty(data:String):String
- + getAmount(data: int):String
- + run():void

UpdateUserDetailsThread

UserAccountStatementThread

Low Level Design

This program waits for the client socket to be initiated from the Modem daemon.

Port = 13

ServerSocket server = new ServerSocket(13)

Socket client

Queue Transaction-list, Transfer-list, Update-list

Thread thread;

void run

{

while(true){

    client = server.accept()

    data = readData from the socket client

    user = extract mobile number from the data

    loop through the the lists:

        IF user exits on either the Transfer or Update -list:

            On the node N where the current user is situated, set the
            data variable with the data that has been read from the
            accepted socket
            // i.e N.data = data
            Set N.ready = true

    if the user was not found on both lists:

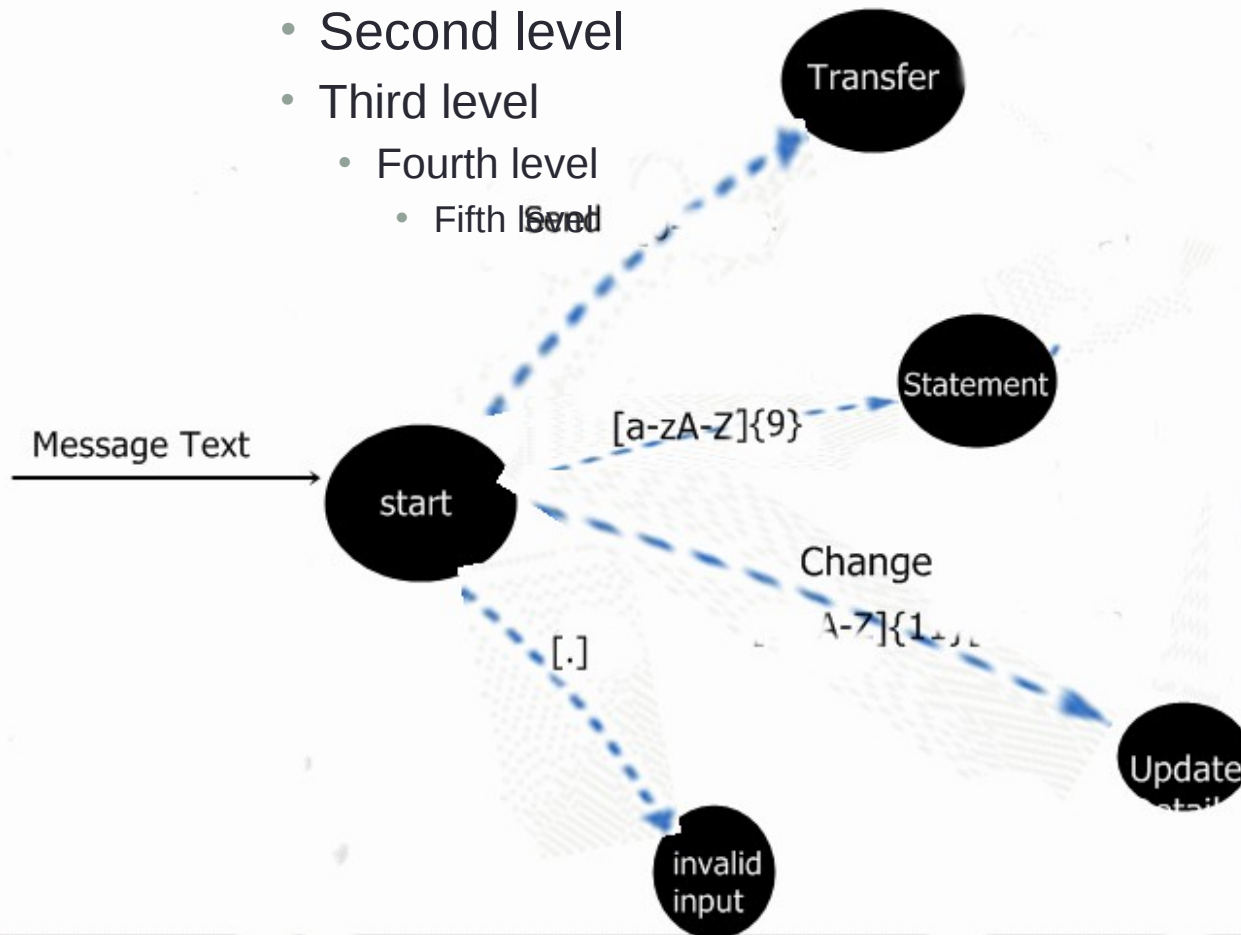   CreateThread (user,data)

Low Level Design (Cont.)

- Click to edit Master text styles
  - Second level
  - Third level
    - Fourth level
      - Fifth level

Project Plan

Term 3	Week 1 - 2	Week 2 - 5	Week 6
	Construction	Implementation	Documentation

References

"Prototyping Definition" PC Magazine, Retrieved 2012-05-03

OZEKI NG SMS Gateway Software [online]

URL://ozekisms.com

Great app begin with design [online]

URL:http://www.developer.nokia.com/Design

Demo

Simulation Programs

       SMS Gateway Emulator

       Mobile Phone Emulator

Scenarios

       Paying a third party

       Banking Statements request