

An Android & Web Based Banking System

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Abstract: *An android application and web portal for banking system has been developed where the transaction can be made very easily. The system we have developed which is web based having feature of android version application. Android is an operating system for cellular phone which is based on Linux kernel that is at present development by Google. We use this application in bank sector. Normally our most of the bank provides manual registration for creating bank account. Customer must be presented in bank to open bank account. These systems sometimes difficult for the people and time wasting. Our application will save time and miseries. To increase accessibility we develop a web based as well as android version of our application. By using our system, user can open a bank account and admin will activated the account after verifying. Admin can update account and check account as well as active or inactive the account. User can transfer money from one account to another. User can check bank statement, user details and transfer money through the website and android apps.*

Keywords: *Application, Banking system, Security, Transaction*

I. Introduction

Mobile banking is a system that allows customers of a financial institution to conduct a number of financial transactions through a mobile device such as a mobile phone or tablet. Mobile banking offers many advantages, easy access and plentiful applications for smart phones, provide a good security. The biggest benefit is that you have more control of your money, Mobile banking takes us back to the days when we used passwords, and many services are pretty basic. People use it to check balances and monitor finances.

The earliest mobile banking services used SMS, services known as SMS banking. With the introduction of smart phones with WAP support enabling the use of the mobile web in 1999, the first European banks started to offer mobile banking on this platform to their customers. It has until recently most often been performed via SMS or the mobile web. Advancements in web technologies such as HTML, CSS3 and JavaScript have seen more banks launching mobile web based services to complement native application.

Information system/technology can be any organized combination of people, hardware, software, communications networks, and data resources that collect, transforms, and disseminate information in an organization, [[http://www.jonathandonner.com/dpnner.teller.m-banking use pdf.](http://www.jonathandonner.com/dpnner.teller.m-banking%20use.pdf)]. Banks urgently need to improve the ability to think strategically about information technology investments. Only banks that use their technology resources effectively have the opportunity to secure real competitive advantage in this fast changing industry through real product or service differentiation. Since 1980, banking in the UK has undergone tremendous structural changes, this has been primarily the result of new regulation and new technology, which itself precipitated the change in regulation. One of the most important regulatory changes is the abolition of credit controls on sterling lending, which was followed by the expansion of the bank's direct consumer lending, credit card and montage business.

II. System Implementation

The main objectives of mobile banking system are

- ✓ To create banking system which is online based.
- ✓ The account can be opened through the online registration.
- ✓ The transaction can make by the user.
- ✓ Admin can active and deactivate account and update account information
- ✓ Admin can active account.
- ✓ Admin can update information.
- ✓ Having an option of email, so that user or admin can send email for verification.
- ✓ Facility to transfer money to one account to another

In this section, described the system work flow in details. The flow diagram shows the main target of this work. The working flow is divided into major parts that are:

1. Request for creating account 2. Active account by admin sending email to user 3. User log-in 4. For security password & pin 5. Check Bank statement and user details 6. Fund Transfer.
The workflow of the proposed work is shown in Fig.

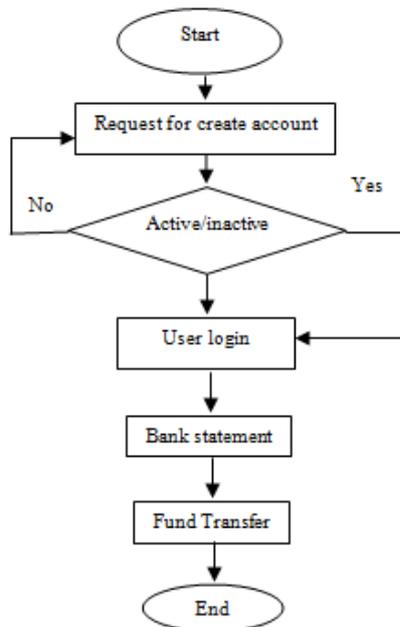


Fig1: Workflow of the proposed system

1. Request for creating account

Mobile banking is a system that allows customers of a financial institution to conduct a number of financial transactions through a mobile device. The biggest benefit is that user can open account through the computer. After verification by the admin account will be activate. Admin send a mail with account_no to user email Fig.2 shows the application form of creating bank account.

Fig2: Creating bank Account online.

2. Security of mobile banking system

This section describes the procedure of the mobile application that process of security system. The security of mobile banking is user log in. For the security purpose there need password and pin number for log in to the account.

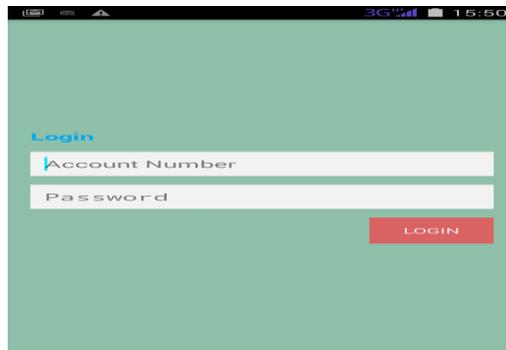


Fig 3: log-in system

3. User details

In this section describes the process of retrieving data from the user’s current information through the android mobile application and web. For this step, user needs to log-in to user’s account with password and pin. Fig. 3 shows user details of bank account holder

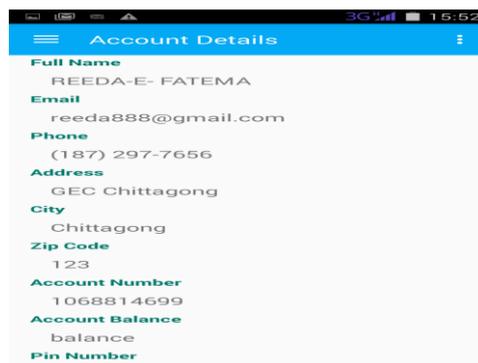


Fig.4 Retrieve user details information.

4. Retrieve Bank statement of user

A bank statement or account statement is a summary of financial transactions which have occurred over a given period on a bank account held by a person or business with a financial institution. This section described the process of retrieving the bank statement of user. After user’s current transaction user can see the bank statement to the user mobile. Figure-5 shows the Bank statement of the user.

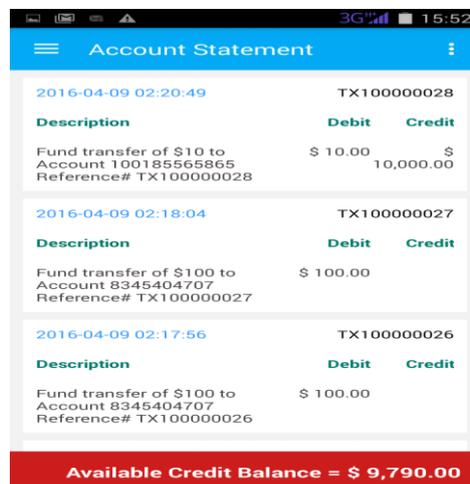


Fig. 5 The customized bank statement

5. The types of financial transactions which a customer may transact through mobile banking include obtaining account balances and list of latest transaction. Fund transfer between customers account or another customers account. Some also enable copies of statements to be downloaded and sometimes printed at the customer's premises, and some banks charge a fee for mailing hardcopies of bank statements.

Three types of transaction are introduces here-

Domestic Transfer: For transaction of local bank in a country we offer domestic transfer.

Local Transfer: For transaction of same bank in a country we offer local transfer.

International Transfer: For transaction of bank in different country we offer international transfer.

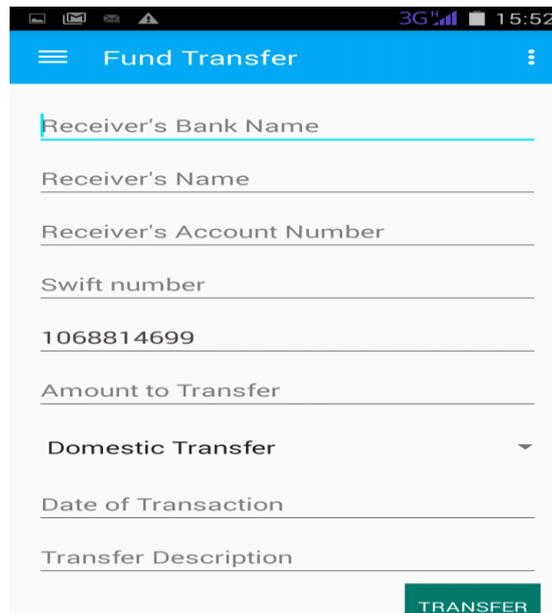


Fig. 6 Fund Transfer

Fig. 6 shows the direction towards the victim's current location. According to the figure, the receiver retrieves the current location of the victim after opening the getting message which shows direction of victims via Google map.

III. Experimental Result

This section explains the performance analysis of the proposed system. The criterion that is considered in this section is the transaction facility provide in mobile banking system. This criterion is based on the performance of mobile banking system. In the experiment it is tested whether the system run through the particular situation. The experimental result is shown in Table I.

Table1: Experimental Result in Particular Situation

Condition	Excepted User	Actual Result	Causes
Empty some information in Registration page.	False	False	Error so all data result error
Having Zero balance trying to send money	False	False	No money transfer and error
Invalid date Format and invalid Account no	False	False	Error no Result
Giving information Correctly	True	True	System run successfully
Log In with account No & password	True	True	Allowed to login

From the experimental result it is seen that the mobile banking system is worked perfectly when the use of Account-no, password and pin are correct. In other case it does not work.

IV. Conclusion

In this paper a generic approach is presented mobile banking system which is mobile application and web based. We collected raw information in details to develop it. The raw material was collected from the information system of different banking. We introduce a banking system which is used for the internet banking. We provide some feature in our system which is user friendly. In our system we provide internet banking which means the online transaction facility. Yet, the system has some limitations. The transaction is made locally. Different sectors of bank has no implemented like interest rate.

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