

**PayMan – AN ONLINE PAYMENT WALLET**

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This Report Presented in Partial Fulfilment of the Requirements for the Degree of  
Bachelor of Science in Computer Science and Engineering

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## **APPROVAL**

This Project titled “**PayMan – An Online Payment Wallet**” submitted by Abu Sinha Md. Sala Uddin, ID No: 152-15-5581, Malik ZubayerUIHaider, ID No: 152-15-5902 and FarihaAkteer, ID No: 152-15-5590 from the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfilment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on.....

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## DECLARATION

We hereby declare that, this project has been done by us under the supervision of **Md. Sadekur Rahman, Assistant Professor, Department of CSE, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree.


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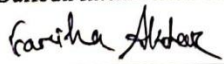
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## **ABSTRACT**

Numerous wallets today are grouped with a few cards, money and more. Monitoring every one of these things can be troublesome. PayMan will give the majority of the elements of the present wallet on one advantageous application disposing of the requirement for a few cards or money. PayMan will likewise give various security highlights not accessible to ordinary wallet transporters. Recognizable proof is required for each application exchange and the application ought to be altered. These expanded safety efforts and accommodation makes this a beneficial task.

PayMan is a means of authentication & payment for device independent e-payment instructions. Digital wallet allows user to make e-transactions quickly & securely. PayMan functions much like a physical wallet. It is a method of storing various forms of e-money (e-cash), it has also evolved into a service that provides internet users with a convenient way to store & use online shopping information. The main idea behind this project is to bring in a cheaper, more versatile and much more easily usable kind of a payment system. Using this application, the transaction procedure can be as simple as: the customer goes in the app and select their desired service on a single tap of their finger, then on the next step the need to enter their pin number to confirm the service to happen.

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# CHAPTER 1

## Introduction

### 1.1 Introduction

An advanced wallet is a framework that safely stores client's instalment data and passwords for various instalment techniques and sites. By utilizing a computerized wallet, clients can total buys effectively and rapidly without stressing of money. The entire world is now coping with this digital wallet technology (digital money). To make this tech popular in our country, we developed an android application called, **“PayMan”**. In this system, user can install the app on their smartphones and access to our application features from there. They can send money, pay different bills, recharge their SIM card, gift token to other members and so more. This document presents a details story behind the planning of “PayMan” mobile application. Alongside, it will reveal the requirements, feasibility study, design, and development process of this application. Additionally, the motivation of this app and how it would facilitate users will be illustrated.

### 1.2 Motivation

Behind building this system many things motivated us. There were several reasons we stepped forward and thought to go ahead to solve this problem. Firstly, we thought that in our country there are not that many flexible applications that can be used as a mobile payment system. So we decided to make an easy accessible application that can be used by everyone. Then, we planned together to make this application as useful as possible for single person whatever their background is.

Secondly, we researched all other platforms similar to ours and found barely any perfect solution as our app can deliver. This lack of solution encouraged us in making “PayMan”.

Thirdly, according to the information of BTRC that the total number of internet users has reached 91.348 million [1], so we thought if we make an online platform targeted every single person that could be useful and profitable for everyone. From our love, endeavour, desperation, enthusiasm towards mobile application development using

most advanced React Native considered a good reason we concentrated on this project.

### **1.3 Objectives**

The objectives of our project are point out below.

- Digitalize the entire banking system.
- To provide safe and reliable money transaction.
- To make transaction accurate.
- To get rid of extra hassle of carrying cash.
- To save time.

### **1.4 Expected Outcome**

PayMan is an online platform that not only saves time but also gives security. Still today everyone is using the old cash transaction method to pay bills. But the entire situation is now changing day by day for the sake of digital world. So, to maintain the digital world scenario every old system is now getting replaced by new technology. But our country is not yet adapted with these technologies entirely because of the lack of easily accessible application like that.

Well, now these things have changed. Our app PayMan will turn the entire process. By using this platform, anyone can easily use those Mobile Wallet features in their smartphones. They can send money, withdraw it, refill mobile account or even gift tokens as they desire.

This system has following features:

- Send money to other accounts anytime.
- Pay different bills.
- Refill their mobile phones.
- Take out their account cash from different points.
- Gift tokens to others.

### **1.5 Report Layout**

The report is divided into five chapters. Each chapter deals with the different aspects of "PayMan". Each chapter has various parts explaining in detail.

- **Chapter 1: Introduction**

This section talks about the critical hypothetical ideas driving our venture. Here likewise examines our venture inspiration, targets and anticipated results.

- **Chapter 2: Background**

This part talks about our task related works, similar examinations and extent of the issue.

- **Chapter 3: Requirement Specification**

This part talks about our task Business Process Modeling, necessity accumulation and examination, use case displaying and depiction, sensible information model and plan prerequisites.

- **Chapter 4: Design Specification**

This section examines our undertaking front-end configuration, back-end structure, connection plan and UX and execution prerequisites.

- **Chapter 5: Implementation and Testing**

This part talks about the Implementation of database, front-end structure, connections, testing. Likewise examine about test outcomes and reports.

- **Chapter 6: Conclusion and Future Scope**

This section talks about the end and future extent of our task.

## CHAPTER 2

### Background

#### 2.1 Introduction

PayMan is an online-based mobile Application. This chapter consist the detailed work present, comparative analysis with our mobile application. Details about Scope of the application is explained. Our target and challenges that we faced are described here.

#### 2.2 Related Works

There are many mobile applications for online banking system. Specifically, if we talk about our country we have many payment wallets exist in the market. Such as bKash, NexusPay, Upay and others. But all of them are related with an existing bank, here our project is different from them because we are not dependent on any bank rather we are associated as a third party with different sources.

#### 2.3 Comparative Studies

PayMan is a mobile application based on online banking system. There are several mobile applications on this type of management. Using those mobile applications,a person can get their banking system running from their phone at some level. PayMan particularly used as a third party software for all banking system and make the whole process hassle free and remove additional hassle of involving with the banks.

##### 2.3.1 Comparison with related applications

A comparative analysis of some related applications is shown in table 2.1.

Table 2.1: Comparative analysis Table

|                           | bKash | NexusPay | Upay | PayMan |
|---------------------------|-------|----------|------|--------|
| User Registration         | Yes   | Yes      | Yes  | Yes    |
| Balance Transfer          | Yes   | Yes      | Yes  | Yes    |
| Mobile Refill             | Yes   | Yes      | Yes  | Yes    |
| QR Scan                   | Yes   | Yes      | Yes  | Yes    |
| Transfer Token            | No    | No       | No   | Yes    |
| Cash Out                  | Yes   | Yes      | Yes  | Yes    |
| 2 Step Login Verification | No    | No       | No   | Yes    |

## **2.4 Scope of the Problem**

We dealt with the portable application following the product improvement process. We experienced each part culmination the past one. The versatile application was made arrangements for a couple of months long to gather necessities and accumulated data widely. PayMan Planning and time the executives plan is given underneath.

## **2.5 Challenges**

The most testing part was information synchronization which set aside a long effort to design. Moreover, a structuring database for the entire framework was testing. Working with ongoing information was additionally testing. We confronted a few bug issues in our framework while coding and it took inside and out looking to think of an answer which is somewhat baffling on that time.

# CHAPTER 3

## Requirement Specification

### 3.1 Business Process Modelling

Business process modelling in business process management and systems engineering is the activity of representing processes of an enterprise, so that the current process may be analysed, improved, and automated [2]. BPM of PayMan shown in Fig 3.1, Fig 3.2.

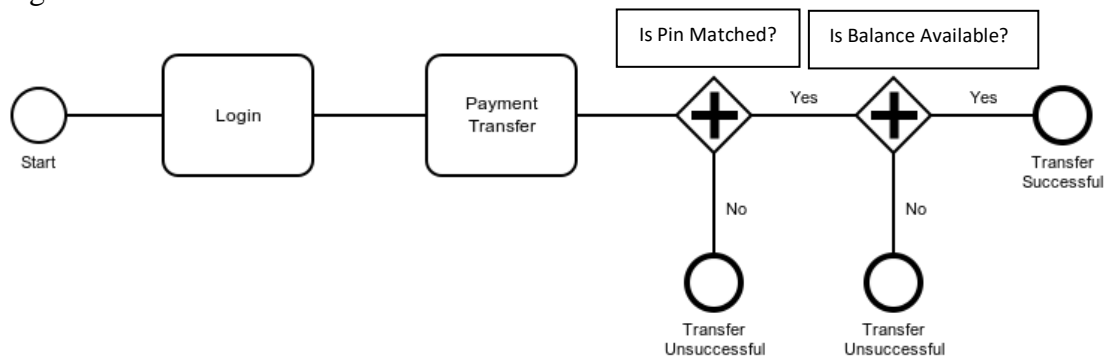


Fig 3.1: Business Process Model of how a Client Transfer Money in this System.

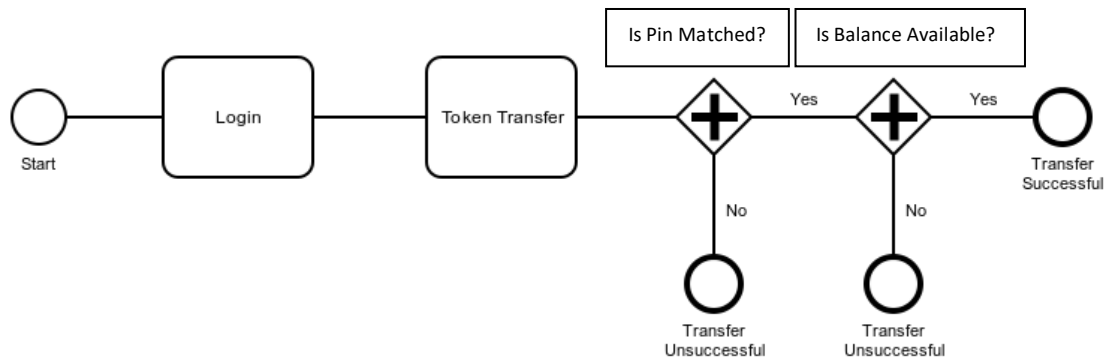


Fig 3.2: Business Process Model of how a Client Transfer Tokens in this System.



## **3.2 Requirement Collection and Analysis**

### **3.2.1 Software Requirements**

To develop this application, we used following Software:

- Operating System: Windows, Linux or Mac.
- System Design: Adobe Photoshop, Illustrator, draw.io.
- Language: ReactJS, React Native, JavaScript, JSX.
- Database: Mysql, MariaDB.
- Tools: Atom, WebStorm, Android Studio, JDK, JRE, Node.js.
- Debugger: ReactJS Debugger Console.
- Device: Android Smart Phone.

Software Requirements, for running the application:

- Operating System: Any Modern OS.
- Network: Wi-Fi or Mobile Network.
- Compatible Device: Any android smartphone.

### **3.2.2 Hardware Requirements**

To build up this application, we need the accompanying Hardware Requirements:

- Processor: Intel Core i3
- RAM: 4GB
- Space on disk: minimum 0.2GB

### **3.2.3 Functional Requirements**

- Graphical User interface which the application client.
- Give simplicity of comprehension to the application through Wi-Fi or cellular network MySQL that stores the information or data to be shown to the client.

### 3.3 Use Case Modeling and Description

#### 3.3.1 System Model

- Client Module

##### Client Module

Clients can perform the below operation in this web application.

- i. Login**  
After registration clients can login into the system.
- ii. Email Address Verification**  
Every time After login to the system clients need to verify his/her account through email address.
- iii. Transfer Balance**  
Clients can edit his/her profile.
- iv. Pay Bills**  
Clients can post his/her case into the system.
- v. Transfer Tokens**  
Clients sees the system statics. Open for offers, Assigned, Completed Case and Pending Case.
- vi. Refill Mobile**  
When lawyers bid on client case then client get bid notification.
- vii. Check Balance**  
Clients can send interview invitation to the bided lawyers.
- viii. Cash Out**  
Client can assign case to a lawyer after successful interview.

### 3.3.2 Use Case Diagram and Description

A use case diagram is a graphic depiction of the interactions among the elements of a system [3]. Fig 3.3 shown PayMan system use case diagram.

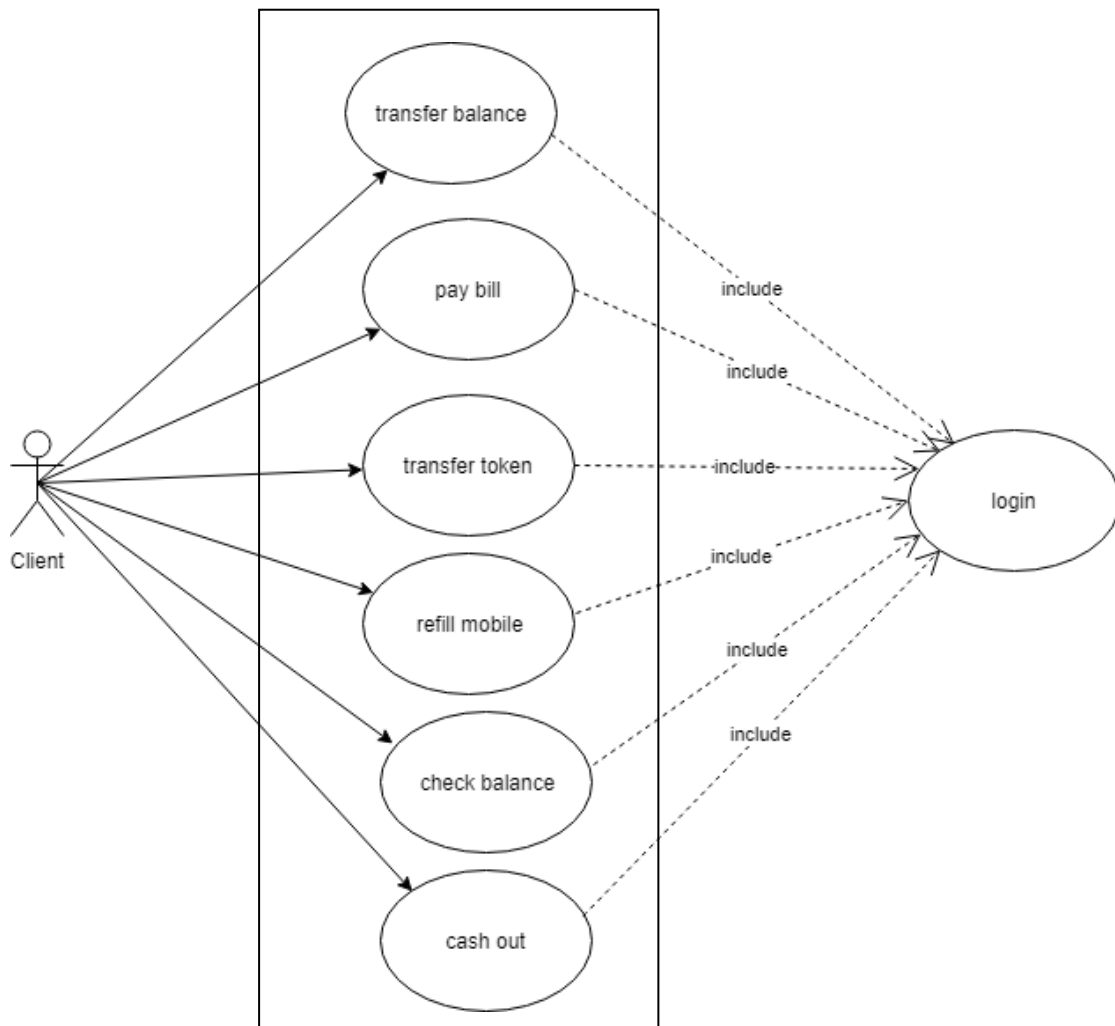


Fig 3.3: Use Case Diagram of System

#### Actor Client

#### Flow of steps

- a) This Use case starts when a client enters the system.
- b) Client can edit profile, pay bills, transfer balance, refill mobile, transfer tokens, and cash out.

### **i. Signup**

Brief Description: Client can register the system through the authority

Actor: Client

Flow of steps

- a) This use case start when a client registered the system.

### **ii. Transfer Balance**

Brief Description: Client can transfer his/her account balance.

Actor: Client

Flow of steps

- a) This use case start when a client login to the system.
- b) Client sees balance information and transfer option.

### **iii. Refill Mobile**

Brief Description: Client can refill their mobile number.

Actor: Client

Flow of steps

- a) This use case start when a client login to the system.
- b) Client can refill their mobile number through the system.

### **iv. Transfer Tokens**

Brief Description: Client can transfer tokens to other users.

Actor: Client

Flow of steps

- a) This use case start when a client login to the system.
- b) Client can transfer their accounts existing tokens to other users.

### **v. Cash Out Money**

Brief Description: Client can cash out money.

Actor: Client

Flow of steps

- a) This use case start when a client login to the system.
- b) A client can take their cash out by transferring their existing balance to cash out points.

## vi. Scan QR Code

Brief Description: Client can scan QR codes for easy transferring money.

Actor: Client

Flow of steps

- a) This use case start when a client login to the system.
- b) Client can use the transfer option by scanning QR codes through in app QR scanner.

## vii. Update Profile

Brief Description: Client can request to update their profile information.

Actor: Client

Flow of steps

- a) This use case start when a client login to the system.
- b) Client can update their profile information through the setting menu.

## 3.4 Logical Data Model

The intelligent information demonstrates speaks to the information handling modules. It utilized for information investigation and preparing effectively. The Entity-Relationship Diagram/Model speaks to the intelligent information demonstrate, shown in Fig 3.4.

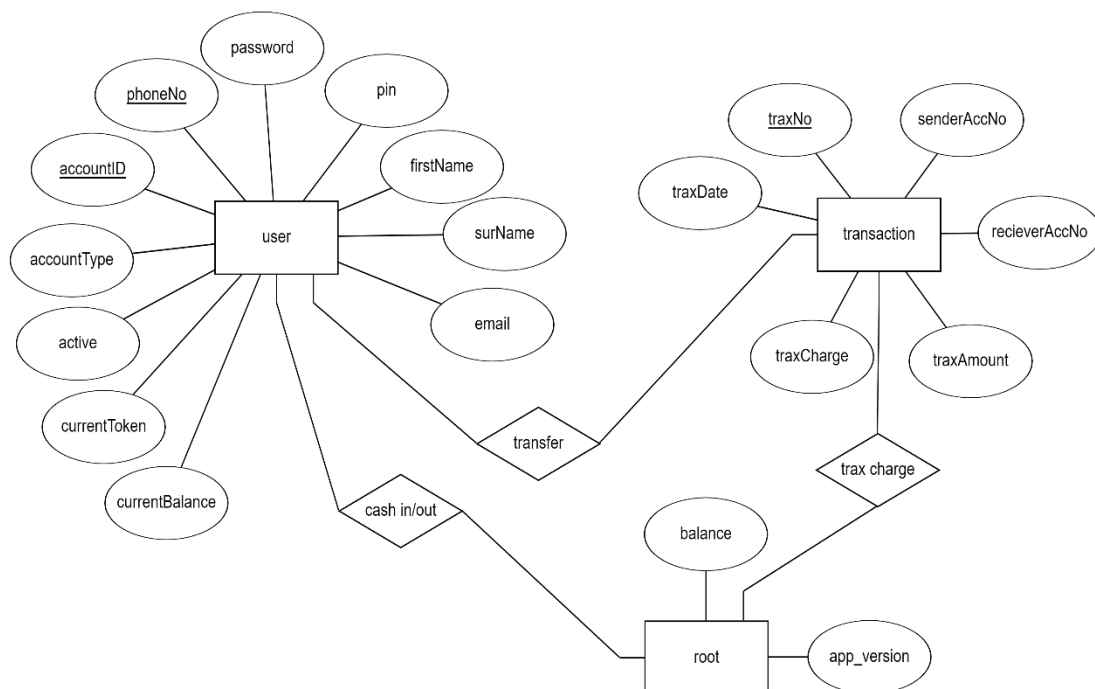


Fig 3.4: ER-Diagram of System

### 3.5 Design Requirements

When designing systems or software, following issues must be considered that reproduce the overall design of the goals that the system expected to achieve. The accompanying objectives were remembered while planning the framework:

Make system simple and flexible for users: The system users are able to have a great amount of control over their purpose in achieving objectives. Make the framework perfect: It ought to be fit in the absolute framework; future upkeep and upgrade should less. The following Fig 3.5 is the flow chart of how user transfer balance in this system.

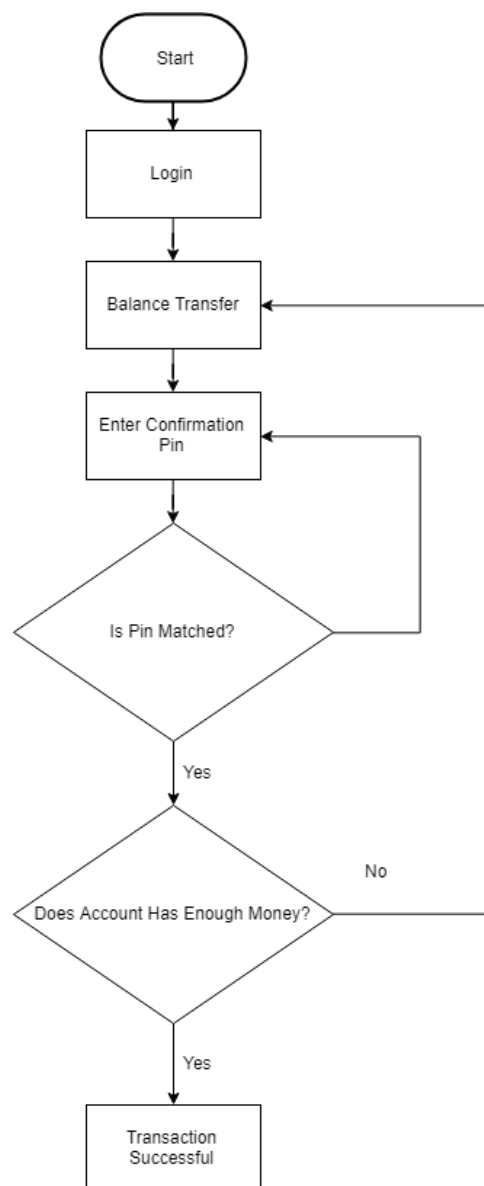


Fig 3.5: Depicts the client module

## CHAPTER 4

### Design Specification

#### 4.1 Front-end Design

Front-end Design is the main attraction of an application. It also should be user-friendly. Our application we designed a beautiful front-end Design. We also try to design user-friendly. In front-end design, our Application has following screen shown in Table 4.1.

Table 4.1: Activity list of the system

|                           |
|---------------------------|
| Login Screen              |
| Login Verification Screen |
| Dashboard Screen          |
| Transfer Balance Screen   |
| QR Code Scan Screen       |
| Mobile Recharge Screen    |
| Token Transfer Screen     |
| Cash Out Screen           |
| Client Profile Screen     |
| Client Setting Screen     |
| FAQ Screen                |

## 4.2 Back-end Design

Our Mobile Application is Dynamic this function works by using the internet. In back-end, design used database. The internet is a most important role in our application. The user has none access to Back-End Design.

The following Fig 4.1 [4] shows how user get output form back-end database.

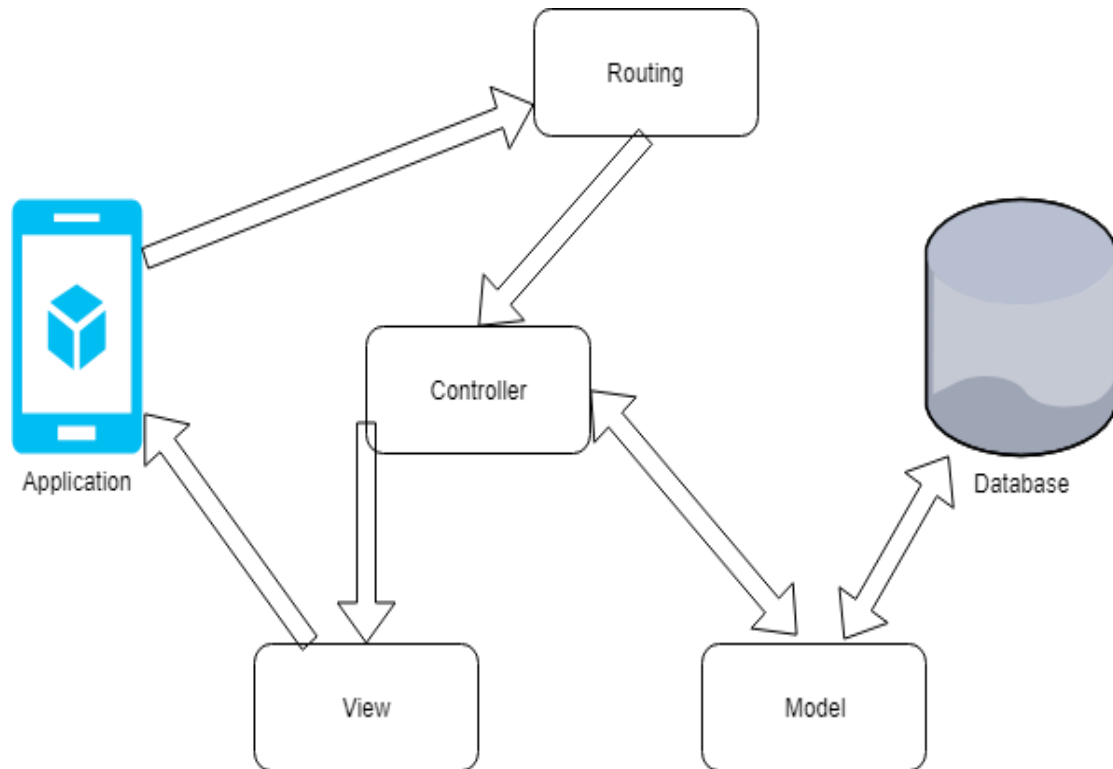


Fig 4.1: Request lifecycle [4].

DBMS tables: The following Fig 4.2 shown PayMan DBMS table.

| accountId | phoneNo     | password | pin  | firstName | surName   | email                     | currentBalance | currentToken | active | accountType |
|-----------|-------------|----------|------|-----------|-----------|---------------------------|----------------|--------------|--------|-------------|
| X649-741  | 01624923060 | 123456   | 1111 | Xian      | Malik     | bil.rogue@gmail.com       | 1202           | 940          | 1      | nexus       |
| F234-764  | 0175809603  | 1234     | 3333 | Fariha    | Akter     | fariha@payman.com         | 3900           | 761          | 1      | user        |
| S874-843  | 01701083374 | 1234     | 2222 | ASM       | Salauddin | asmsalauddin703@gmail.com | 3212.5         | 576          | 1      | user        |
| X123-456  | 01612888699 | pass1234 | 0    | Zubayer   | Malik     | mail@payman.com           | 5000           | 457          | 1      | user        |

| Table           | Action                                      | Rows      | Type          | Collation                | Size           | Overhead   |
|-----------------|---|-----------|---------------|--------------------------|----------------|------------|
| root            | ★ Browse Structure Search Insert Empty Drop | 1         | MyISAM        | latin1_swedish_ci        | 2 KiB          | -          |
| transactions    | ★ Browse Structure Search Insert Empty Drop | 27        | MyISAM        | latin1_swedish_ci        | 3.1 KiB        | -          |
| users           | ★ Browse Structure Search Insert Empty Drop | 4         | MyISAM        | latin1_swedish_ci        | 4.4 KiB        | -          |
| <b>3 tables</b> | <b>Sum</b>                                  | <b>32</b> | <b>MyISAM</b> | <b>latin1_swedish_ci</b> | <b>9.5 KiB</b> | <b>0 B</b> |

Fig 4.2: System DBMS tables



### 4.3 Interaction Design and UX

User Experience (UX) is basic to the achievement or disappointment of an item in the market. Communication Design is most essential piece of User Experience (UX) plan. An application realization relies upon User fulfilment. How an application is progressively alluring to the client is relies upon collaboration and Design part. In our portable application, we utilized the valuable model of Interactive plan.

The following Fig 4.2 [5] shows There are 7 factors that describe user experience, according to Peter Morville.

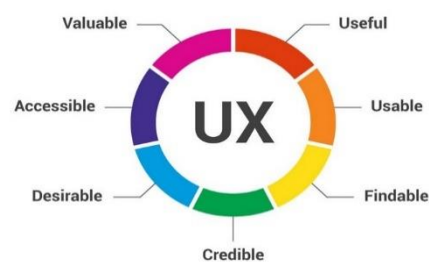


Fig 4.3: The 7 Factors that Influence User Experience [5].

#### **Home Screen Interaction Design and UX:**

We have designed our Home Screen which is linked with login page. When the application is open to the user it shows the home page. If the user has login id and password, he/she can easily login into the system by click on the Login button. Is user don't have id or password they must registration in the system by contacting the authority. But for extra security user need to verify them by completing 2 step verification system in our app by entering a security code that is delivered automatically to their email whenever they try to login to the system.

#### **Dashboard Screen Interaction Design and UX:**

In client dashboard, they can see their account balance, a history of their transactions, their account type and number. They can also see the status of their account if it is verified or not yet.

#### **Transfer Balance Interaction Design and UX:**

In Client dashboard, client see various option in the bottom that they can navigate by clicking on them or simply sliding to left and right. In transfer balance page they see

two boxes 1. Account no. and 2. Amount. After filling up these two field they can click confirm to send the money to that account.

### **QR Code Interaction Design and UX:**

It is almost same as the previous screen but here user only scans the QR code rather than give the input manually, it will automatically receive the required information through the QR codes.

### **MobileRecharge Interaction Design and UX:**

This page is also like the balance transfer page but here you need to fill up mobile number and amount you want to refill rather than account no. and amount then click on the recharge phone button to confirm the recharge.

### **Token Transfer Interaction Design and UX:**

On this page user will see the available tokens to their account then on the bottom of that they had the option to send their available token to other accounts by filling up the required 2 field firstly account no then amount. After filling up those required field they can gift the token by just pressing the confirm button below that.

### **Cash Out Interaction Design and UX:**

From this specific screen user can take their cash out of their account from cash out points.

### **Client Profile Interaction Design and UX:**

By sliding the left side of the screen or pressing the top left button user can see more options like their user name, account no., profile, settings and FAQ. On the profile they can see their personal information attached with their account like name, email address, account type, account no, account status and other useful information.

### **Settings Interaction Design and UX:**

In the settings menu user can send requests to the authority to change their information from the system, like their user name, password, email address etc.

## **FAQ Interaction Design and UX:**

In the FAQ menu user can find the most useful frequently asked questions and their answers which could help them understand the system better or find different solutions to their problem regarding the application.

### **4.4 Implementation Requirements**

Implementation Requirement is given below:

1. WebStorm
2. Atom
3. Windows Powershell
4. NodeJS
5. React JS
6. React Native
7. JavaScript
8. JS OOP
9. PHP
10. MySQL
11. Jason Web Tokens (JWT)
12. Web Encryption Methods
13. Android Studio

# CHAPTER 5

## Implementation and Testing

### 5.1 Implementation of Database

To build this application one DBMS (MySQL) were used. MySQL for storing data to the server. Some screenshots of the system database are shown in Fig 5.1, 5.2, 5.3, 5.4, 5.5, 5.6:

| accountId | phoneNo     | password | pin  | firstName | surName   | email                     | currentBalance | currentToken | active | accountType |
|-----------|-------------|----------|------|-----------|-----------|---------------------------|----------------|--------------|--------|-------------|
| X649-741  | 01624923060 | 123456   | 1111 | Xian      | Malik     | bil.rogue@gmail.com       | 1202           | 940          | 1      | nexus       |
| F234-764  | 0175809603  | 1234     | 3333 | Fariha    | Akter     | fariha@payman.com         | 3900           | 761          | 1      | user        |
| S874-843  | 01701083374 | 1234     | 2222 | ASM       | Salauddin | asmsalauddin703@gmail.com | 3212.5         | 576          | 1      | user        |
| X123-456  | 01612888699 | pass1234 | 0    | Zubayer   | Malik     | mail@payman.com           | 5000           | 457          | 1      | user        |

Fig 5.1: Implementation of users table

| Table        | Action                                    | Rows | Type   | Collation         | Size    | Overhead |
|--------------|---|------|--------|-------------------|---------|----------|
| root         | Browse Structure Search Insert Empty Drop | 1    | MyISAM | latin1_swedish_ci | 2 KiB   | -        |
| transactions | Browse Structure Search Insert Empty Drop | 27   | MyISAM | latin1_swedish_ci | 3.1 KiB | -        |
| users        | Browse Structure Search Insert Empty Drop | 4    | MyISAM | latin1_swedish_ci | 4.4 KiB | -        |
| 3 tables     | Sum                                       | 32   | MyISAM | latin1_swedish_ci | 9.5 KiB | 0 B      |

Fig 5.2: Implementation of main system table

| #  | Name           | Type        | Collation         | Attributes | Null | Default |
|----|----------------|-------------|-------------------|------------|------|---------|
| 1  | accountId      | varchar(12) | latin1_swedish_ci |            | No   | None    |
| 2  | phoneNo        | varchar(15) | latin1_swedish_ci |            | No   | None    |
| 3  | password       | varchar(50) | latin1_swedish_ci |            | No   | None    |
| 4  | pin            | int(4)      |                   |            | No   | None    |
| 5  | firstName      | varchar(20) | latin1_swedish_ci |            | No   | None    |
| 6  | surName        | varchar(20) | latin1_swedish_ci |            | No   | None    |
| 7  | email          | varchar(50) | latin1_swedish_ci |            | No   | None    |
| 8  | currentBalance | float       |                   |            | No   | None    |
| 9  | currentToken   | int(11)     |                   |            | No   | None    |
| 10 | active         | tinyint(1)  |                   |            | No   | None    |
| 11 | accountType    | varchar(20) | latin1_swedish_ci |            | No   | None    |

Fig 5.3: Implementation of user information table

| traxNo | senderAccNo | recieverAccNo | traxAmount | traxDate            |
|--------|-------------|---------------|------------|---------------------|
| 1      | X649-741    | F234-764      | 200        | 2019-01-16 14:47:15 |
| 5      | F234-764    | S874-843      | 20         | 2019-01-16 16:47:11 |
| 6      | X649-741    | S874-843      | 20         | 2019-01-16 16:47:11 |
| 17     | X649-741    | F234-764      | 200        | 2019-02-01 05:52:05 |
| 8      | X649-741    | F234-764      | 1500       | 2019-01-29 04:51:01 |
| 16     | X649-741    | F234-764      | 200        | 2019-02-01 05:51:30 |
| 15     | X649-741    | F234-764      | 200        | 2019-02-01 05:50:44 |
| 14     | X649-741    | F234-764      | 200        | 2019-02-01 05:44:55 |
| 18     | F234-764    | X649-741      | 100        | 2019-02-01 06:16:05 |
| 19     | X649-741    | F234-764      | 150        | 2019-02-01 16:27:08 |
| 20     | X649-741    | F234-764      | 120        | 2019-02-01 16:46:23 |
| 21     | X649-741    | F234-764      | 120        | 2019-02-01 16:48:08 |
| 22     | X649-741    | F234-764      | 100        | 2019-02-01 16:51:42 |
| 23     | X649-741    | F234-764      | 100        | 2019-02-01 16:52:49 |

Fig 5.4: Implementation of transaction history table

| #                        | Name | Type        | Collation | Attributes | Null  | Default | Comments | Extra |
|--------------------------|------|-------------|-----------|------------|-------|---------|----------|-------|
| <input type="checkbox"/> | 1    | balance     |           |            | float | No      | None     |       |
| <input type="checkbox"/> | 2    | app_version |           |            | float | No      | None     |       |

Fig 5.5: Implementation of root table

| #                        | Name | Type          | Collation | Attributes | Null        | Default           | Comments          | Extra          |
|--------------------------|------|---------------|-----------|------------|-------------|-------------------|-------------------|----------------|
| <input type="checkbox"/> | 1    | traxNo        |           |            | int(11)     | No                | None              | AUTO_INCREMENT |
| <input type="checkbox"/> | 2    | senderAccNo   |           |            | varchar(12) | latin1_swedish_ci | No                | None           |
| <input type="checkbox"/> | 3    | recieverAccNo |           |            | varchar(12) | latin1_swedish_ci | No                | None           |
| <input type="checkbox"/> | 4    | traxAmount    |           |            | int(11)     | No                | None              |                |
| <input type="checkbox"/> | 5    | traxDate      |           |            | datetime    | No                | CURRENT_TIMESTAMP |                |

Fig 5.6: Implementation of transaction table

## 5.2 Implementation of Front-end Design

For implementing front-end design of the system we used React JS, React Native and JSX. The challenge was more when we just implement the screen and there the perfection was the matters for us. There is some front-end screen given below.

### 5.2.1 Login Page

Login is needed to access the main system. Clients has the access to enter the main system. No one can access main system without login. After entering account no and password they need to verify themselves by enter a second step verification code which will be delivered to their email address after clicking to the login button. After login the users have the access to the system, shown in Fig 5.7

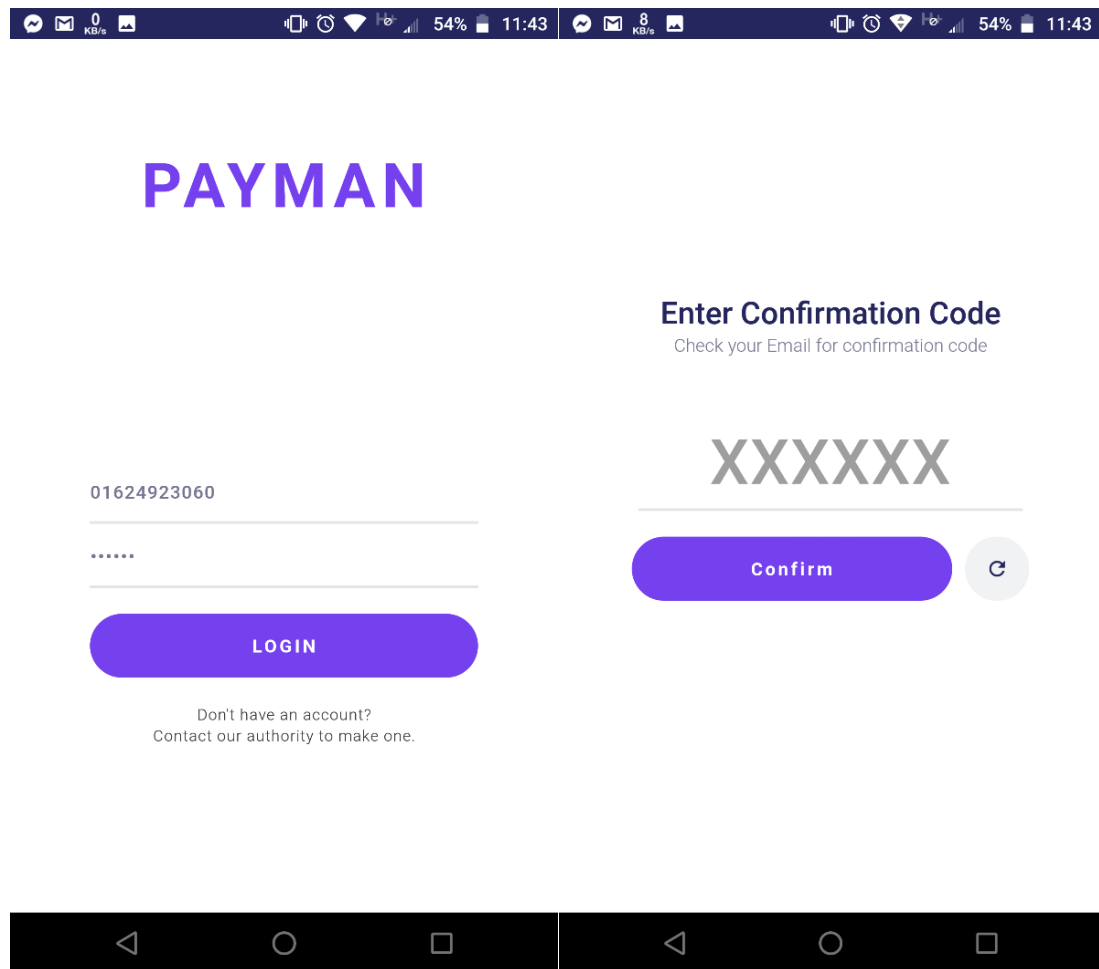


Fig 5.7: Login pages

## 5.2.2 Dashboard Page

After login to the system user can see the dashboard of the main system which includes users current balance, account no., account type and transaction history. This feature is shown in Fig 5.8.

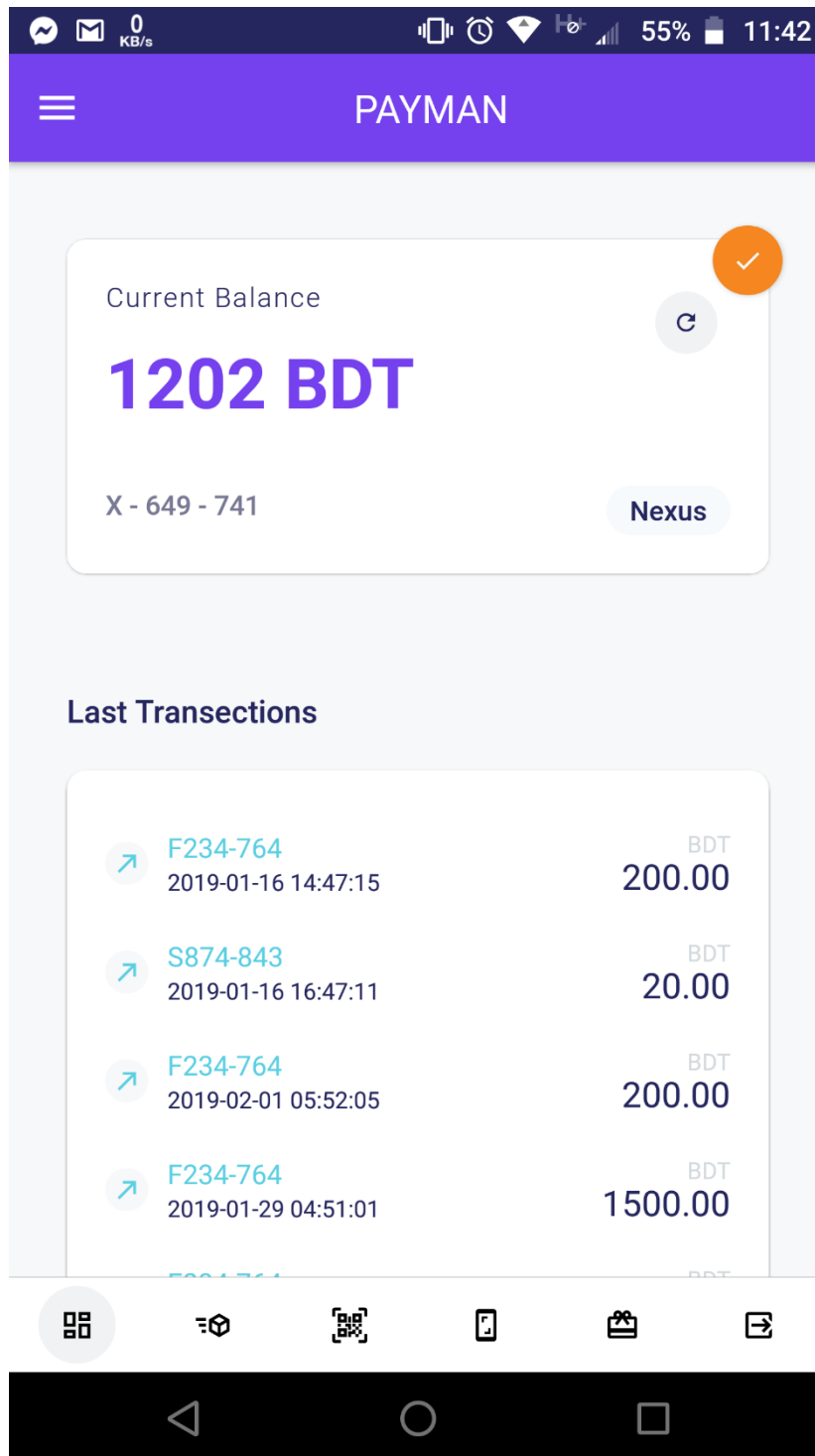


Fig 5.8: Dashboard Page

### 5.2.3 Option Page

In the left pan menu user can see their profile name with their account no. with some other button like Dashboard, Profile, Settings and FAQ with a Logout button as well, shown in Fig 5.9

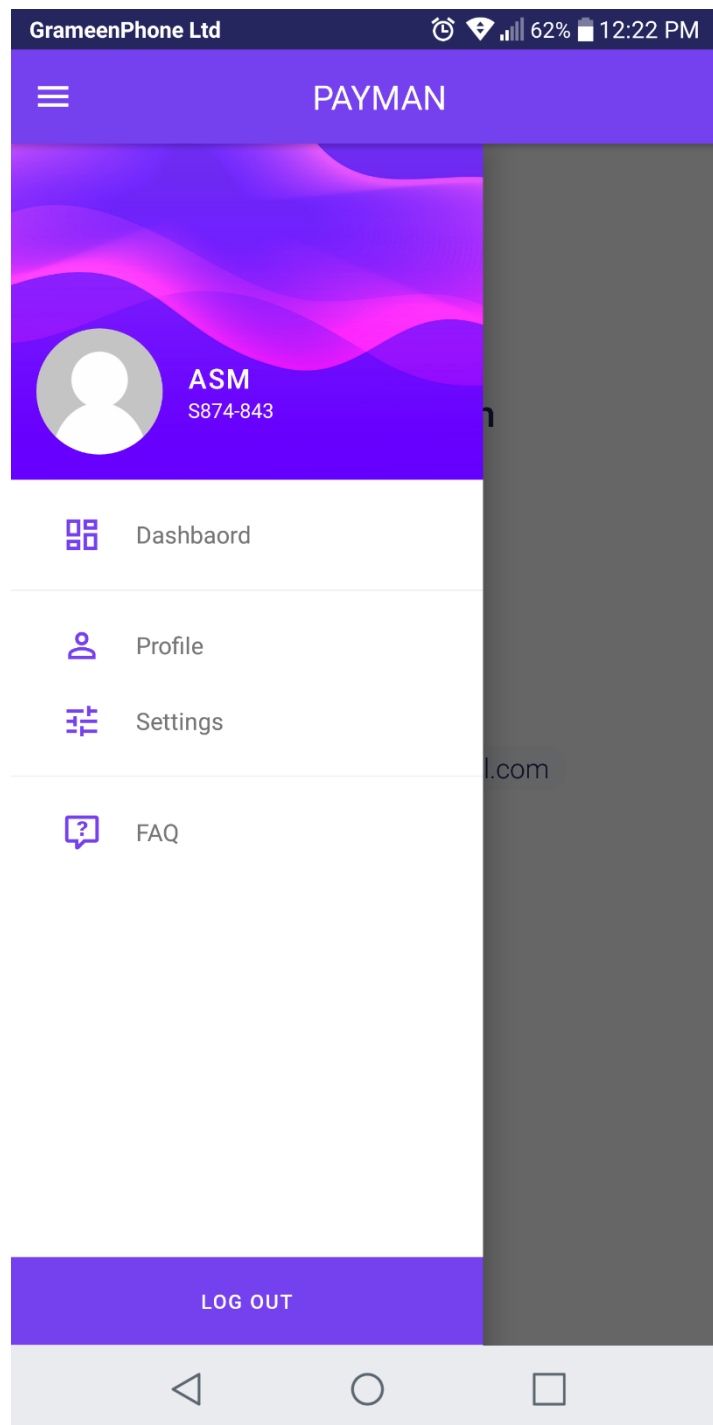


Fig 5.9: Option Page



## 5.2.4 Profile Page

On the profile page user can see their full name, account ID, phone no. email address, account status and their account type, shown in Fig 5.10.

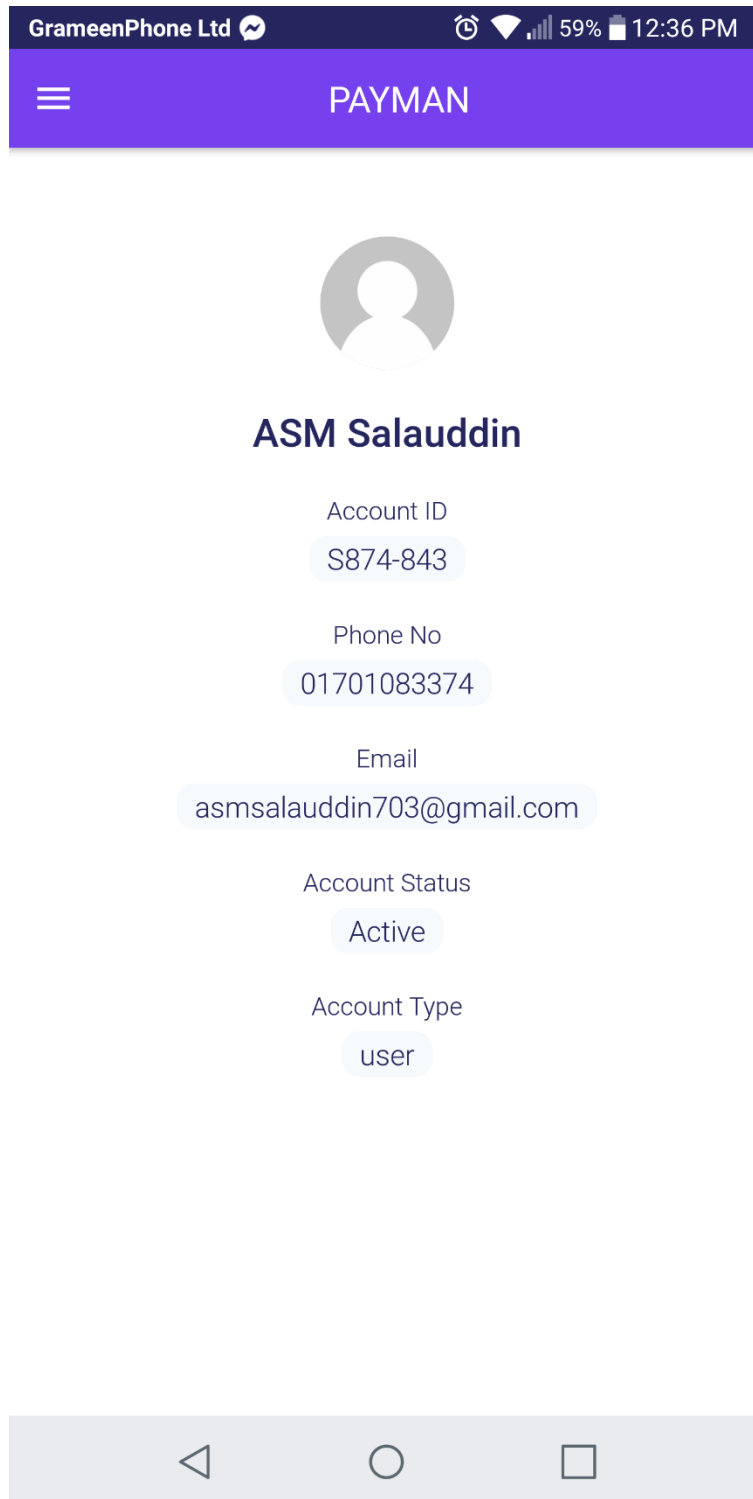


Fig 5.10: Profile Page

### 5.2.5 FAQ Page

FAQ page contains some Frequently Asked Questions about the application, shown in Fig 5.11.

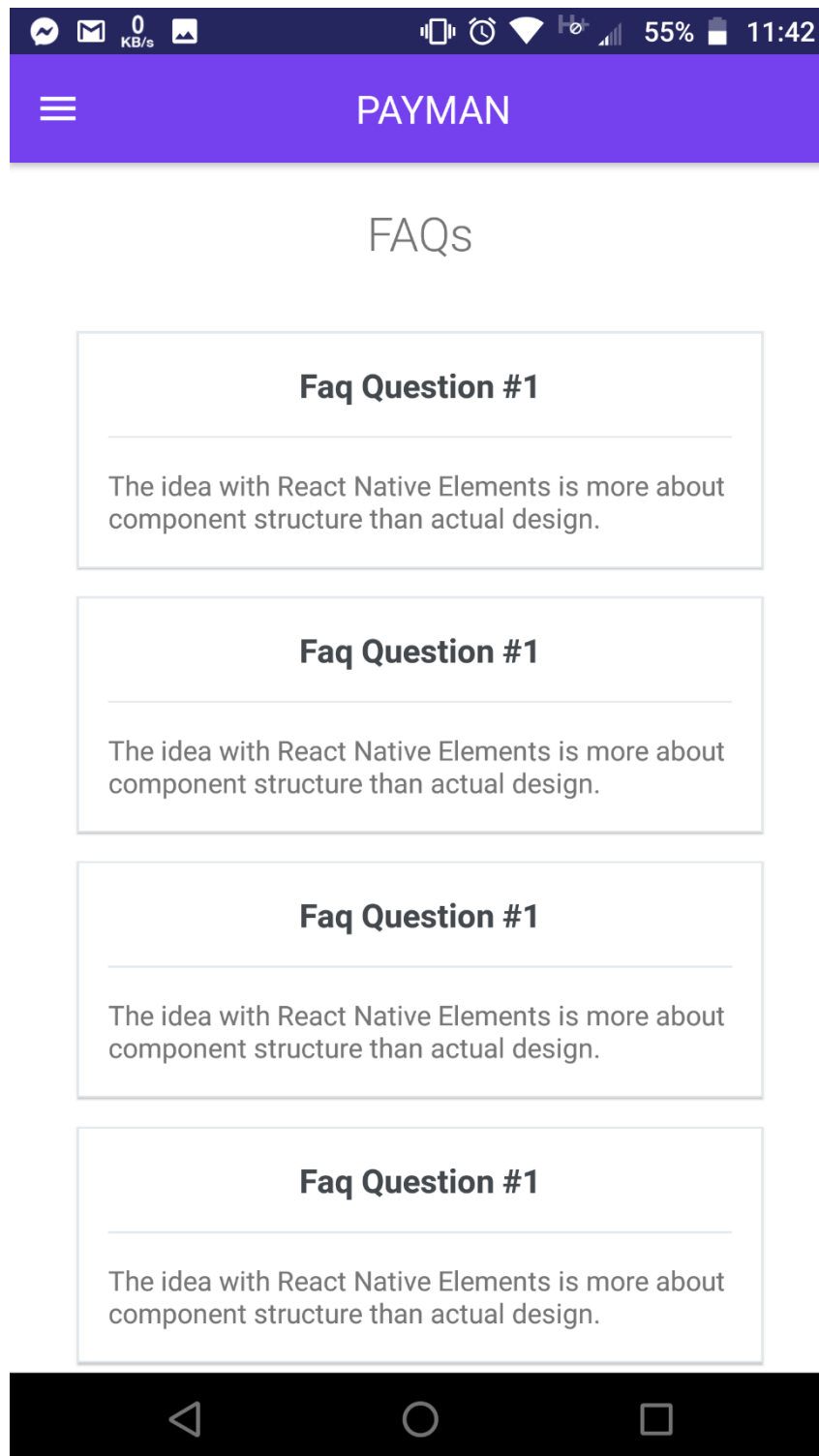


Fig 5.11: FAQ Page

### 5.2.6 Balance Transfer Page

After the dashboard option user can find the balance transfer option where they can transfer balance to the other users by entering the receiver account no and the amount of money, shown in Fig 5.12.

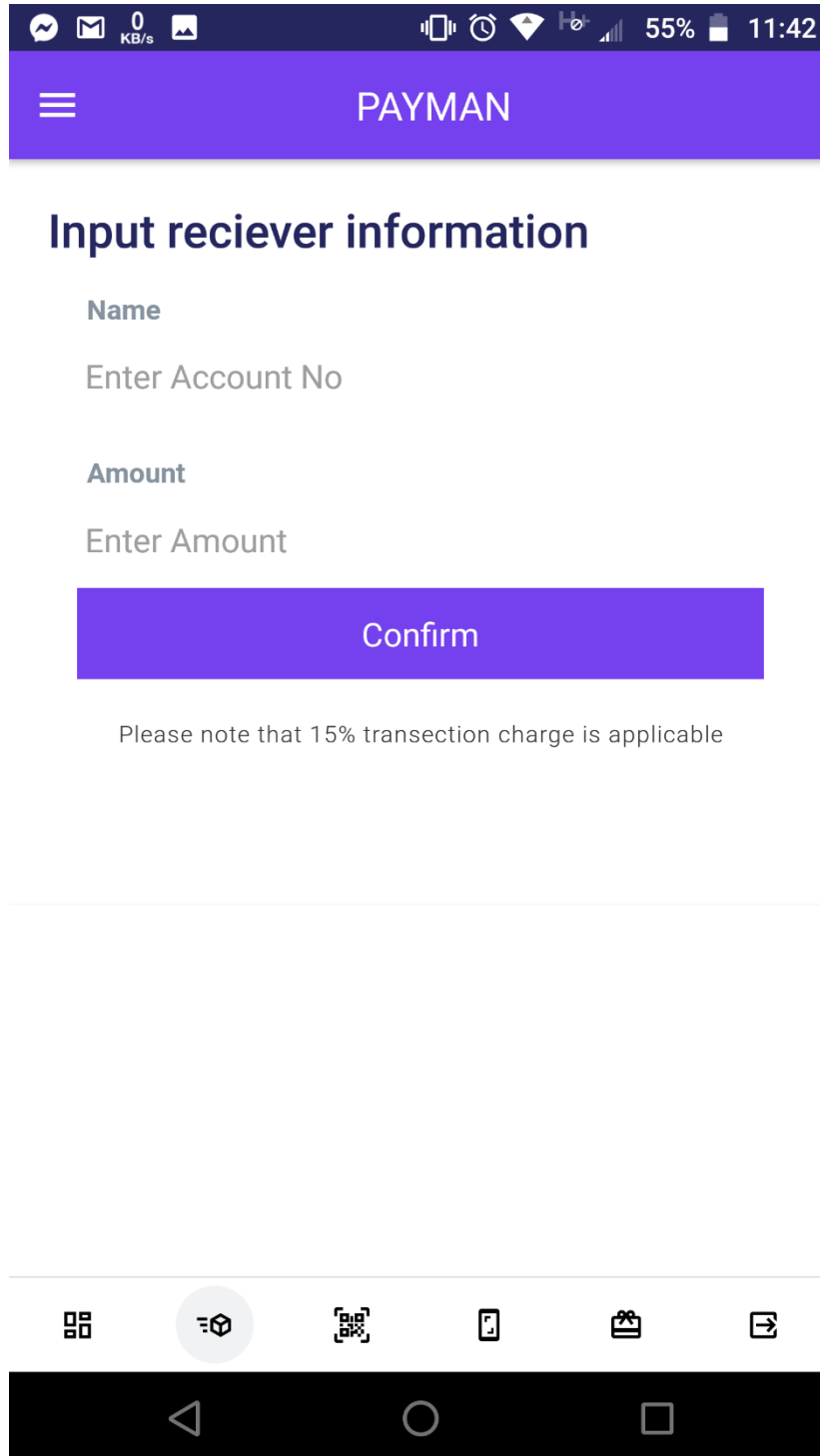


Fig 5.12: BalanceTransfer Page

### 5.2.7 QR Code Scan Page

User can accomplish the same task as balance transfer with ease using the QR code scan function in the QR code section of our app, shown in Fig 5.13.

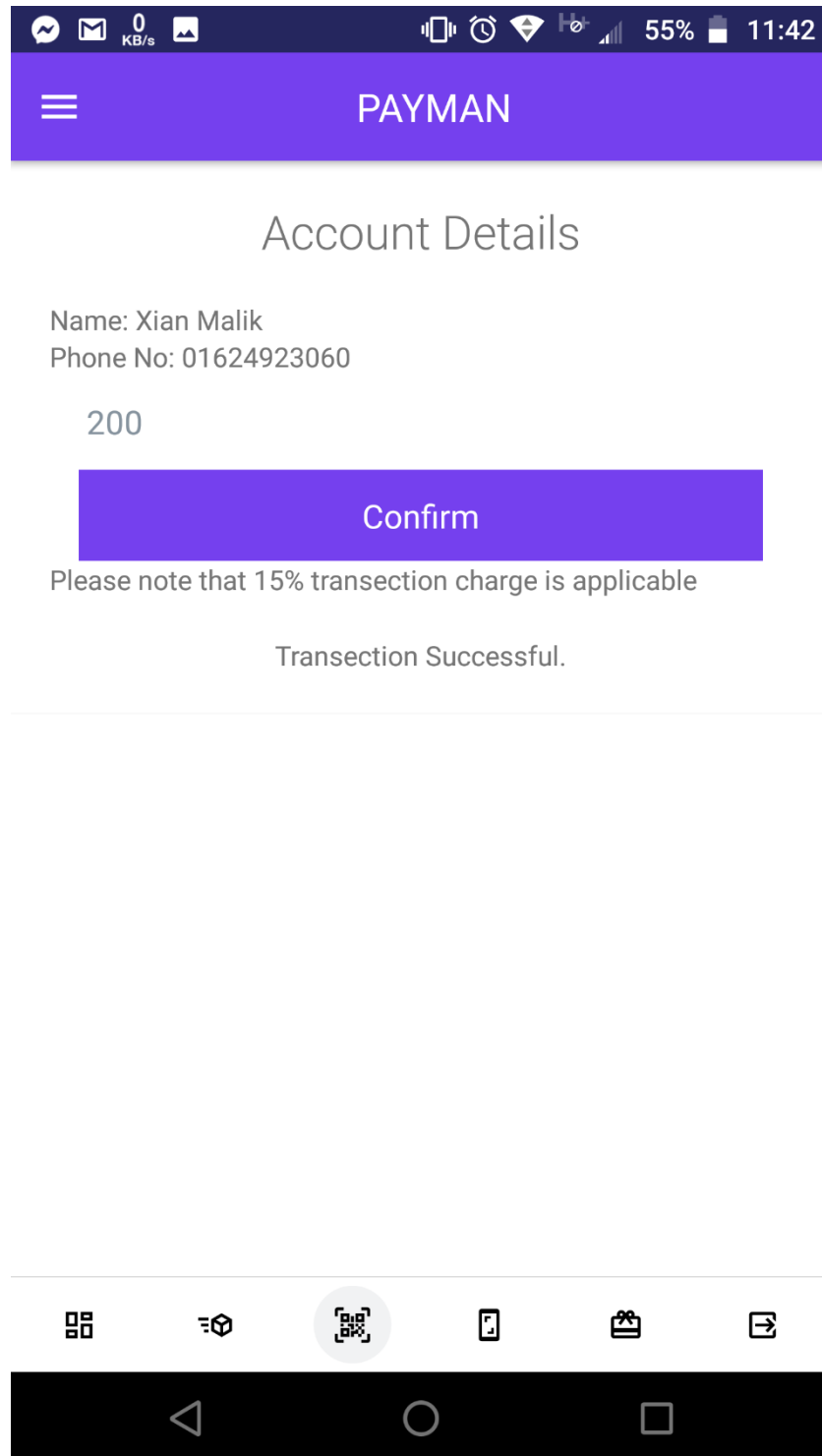


Fig 5.13: QR Code Scan Page

### 5.2.8 Token Page

User can find a specific option to transfer token from their account to other users account as a gift, shown in Fig 5.14.

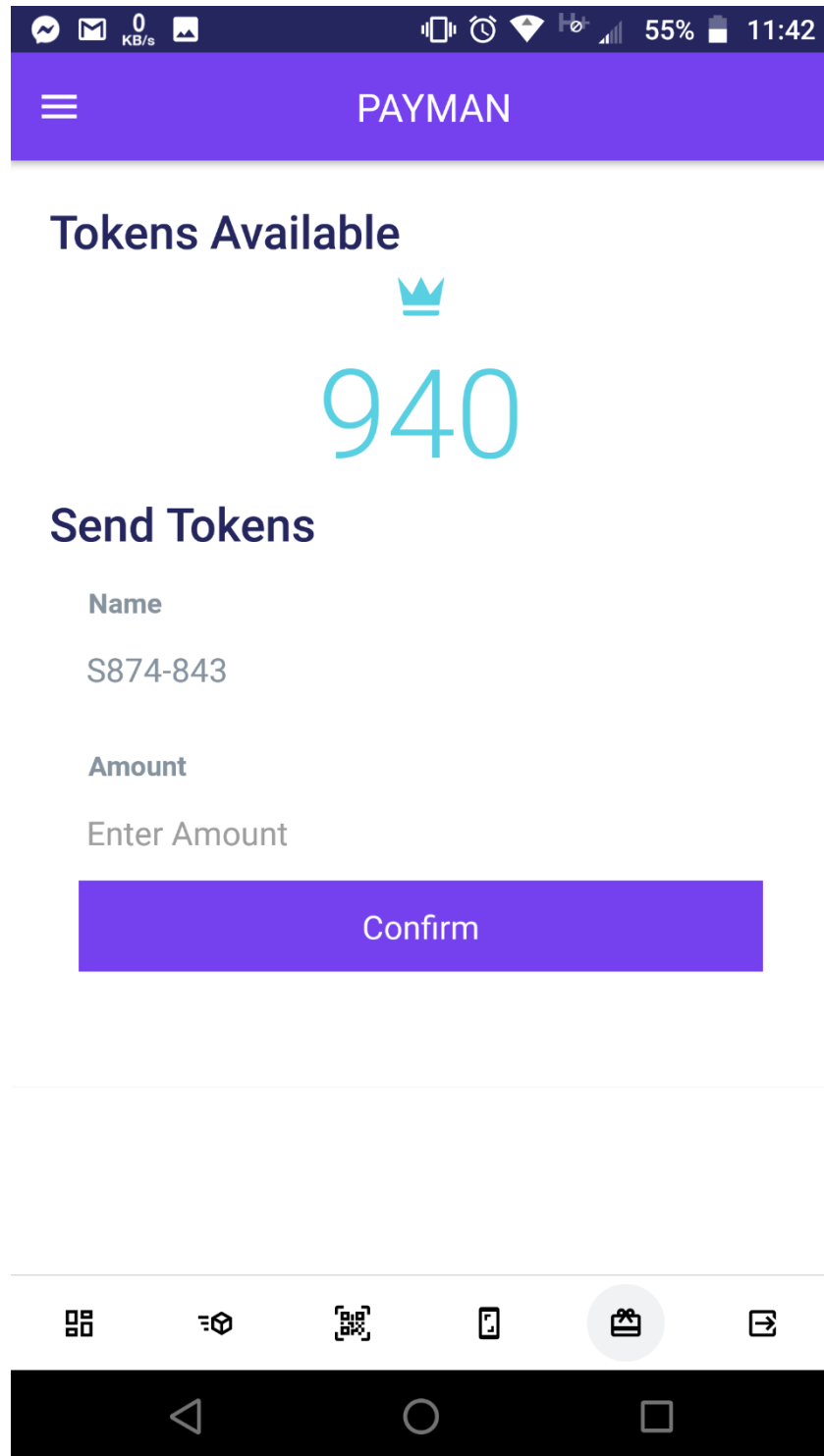


Fig 5.14: Token Page

### 5.2.9 Mobile Refill Page

This page Contains mobile refill option for the users, user can refill their own mobile or other mobiles through that option, shown in Fig 5.15.

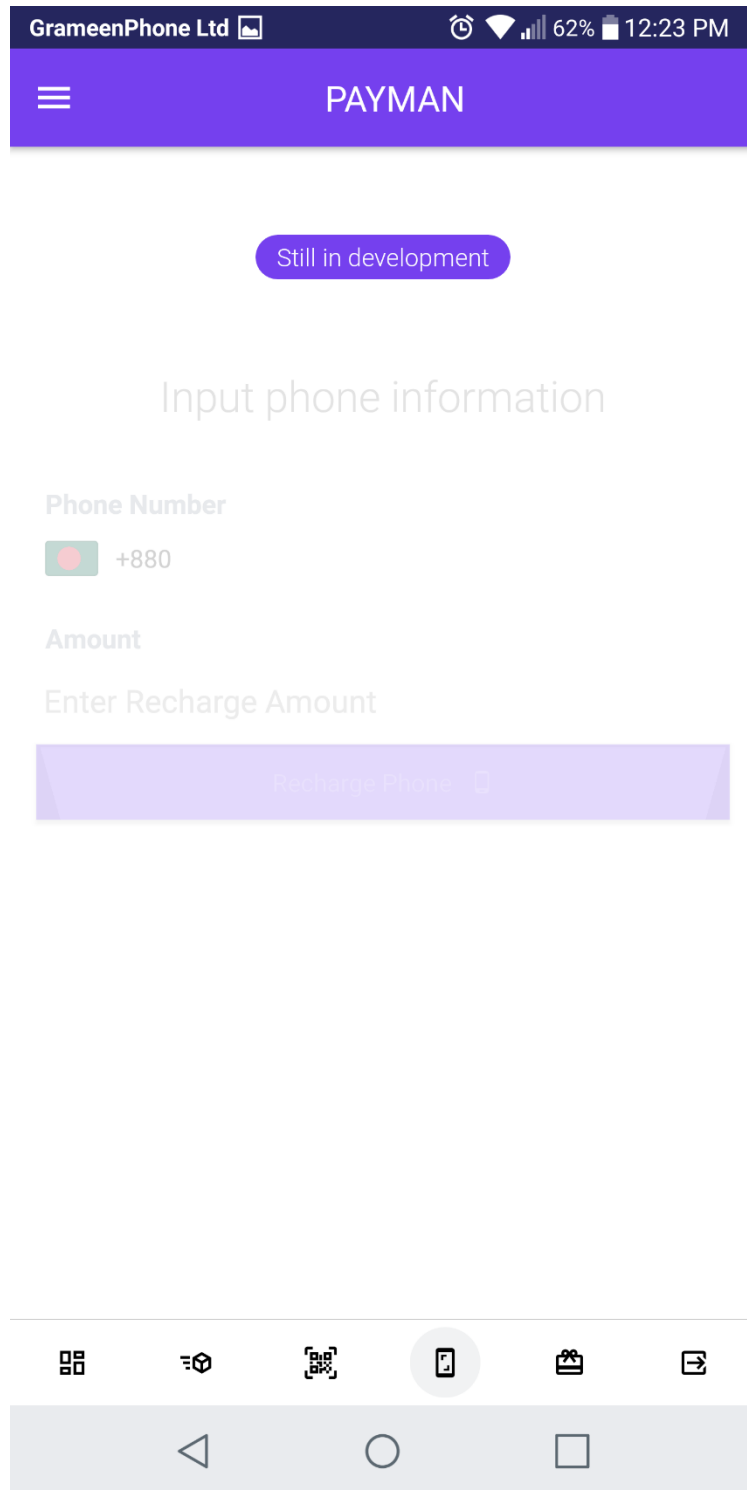


Fig 5.15: Mobile Refill Page

### 5.2.10 Cash Out Page

This page contains the option for the users to take their cash out, shown in Fig 5.16.

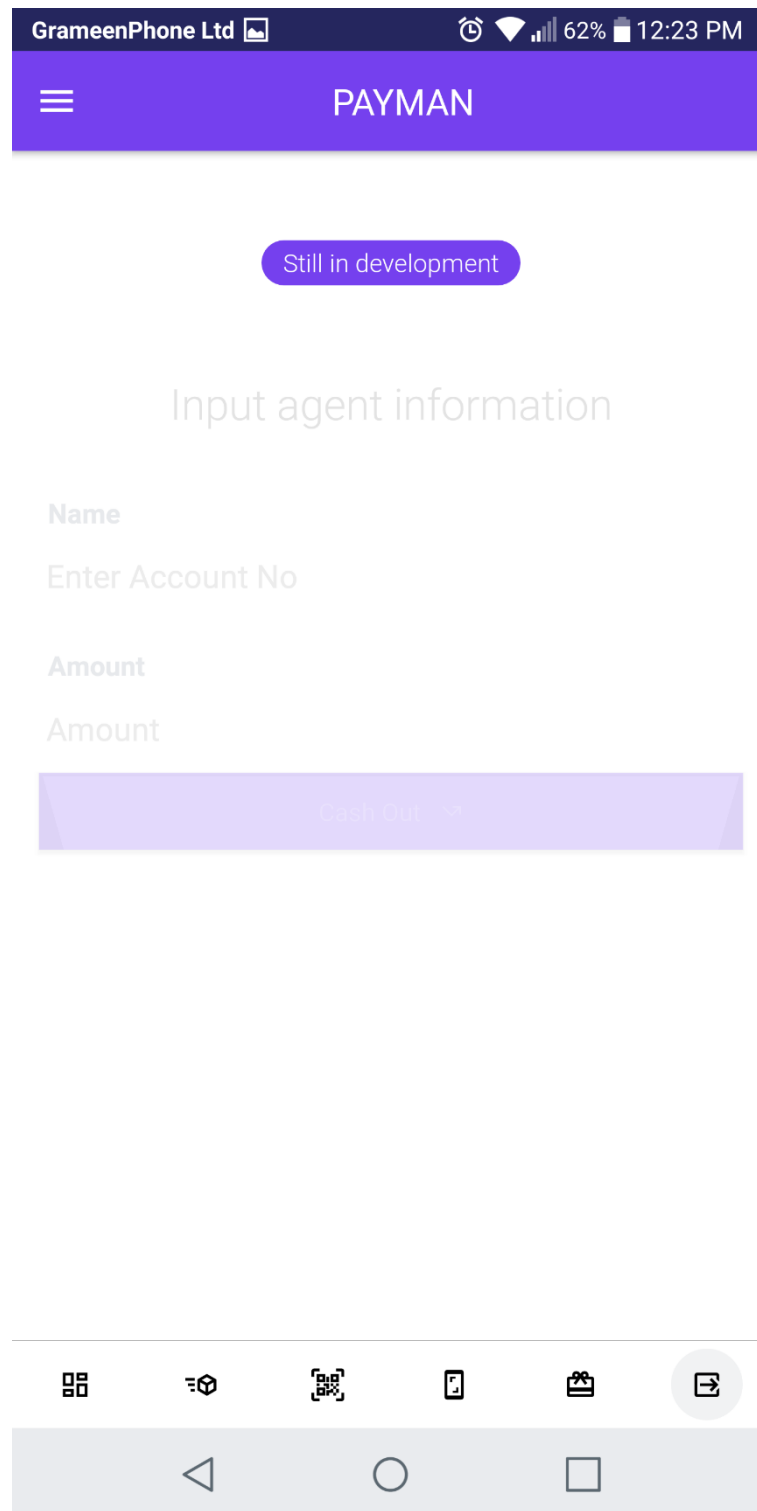


Fig 5.16: Cash Out Page

### 5.3 Implementation of Interactions

Execution of association is most imperative piece of a framework. Association implies when we are in a particular capacity and go to another capacity that we need those time. We separate the capacity for a variation of the client. We structure each client part in all respects considerately that client what he needs is without a doubt here. We plan all around cautiously that the structure appealing to clients. An application Successions where the client is fulfilled utilizing the application. The Satisfaction dimension of our framework is high.

### 5.4 Testing Implementation

When a system is implemented and test some specific function is called test implementation [6]. We have tested our system several times. Login, Verification, Balance Transfer, Mobile Refill, Transfer Tokens, Cash Out, Frequently Asked Questions, Profile View and Settings. Test by us at various time. We have tested the following factors:

1. Login System.
2. 2 Step Verification.
3. User Account.
4. Balance Transfer.
5. Token Transfer.
6. Profile Maintenance.
7. Settings Change.

### 5.5 Test Results and Reports

System Testing Table show below the result of system testing:

Table 5.1: System Testing Table

| Test Case ID | Date     | Tester  | Design  | User Experience | Recommendation For Others |
|--------------|----------|---------|---------|-----------------|---------------------------|
| 1            | 28/03/19 | Shazzad | Great   | Good            | Yes                       |
| 2            | 28/03/19 | Dani    | Good    | Great           | Yes                       |
| 3            | 29/03/19 | Tanmoy  | Good    | Average         | Yes                       |
| 4            | 29/03/19 | Bethi   | Amazing | Good            | Yes                       |



## CHAPTER 6

### Conclusion and Future Scope

#### 6.1 Conclusion

For the grace of **Almighty Allah**, we have successfully completed our project and documentation. After the long-term of thinking, Discussion, implementation we are in the last session and happy of completion. PayMan is capable of transferring money with ease in no time. Our system reduces the hassle of time.

Until now people faced tremendous problem regarding with money transfer and online banking in our country. Most of the people needs to stay in a long line to pay any bills and other stuffs related with payment.

Well, now this problem has changed. PayMan has changed the process. By using our platform user can pay any kind of bills like university payment, electric bills payment, e-commerce payment and other stuffs in a single click without any additional hassle. Peoples most valuable time will be saved by our system.

#### 6.2 Future Scope

We have a future plan for the application. Some of the plans are:

1. Introduce our payment app with additional NFC card feature
2. Will introduce international payment system
3. AI based chat bot to help user's problems
4. A Web Site will be developed as well

## References

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## APPENDIX

### Appendix: Project Reflection

As what I have realized amid the work on PayMan, an elite group would be unified with superior and high relationship.

When we initially begun off, I didn't imagine that our group was not the high-task one. In any case, I think our gathering is indistinguishable as it were that another gathering part has her very own indistinguishable character and we really supplement one another.

It's much the same as how critical for the synthesis of a group is. You have to enrol the correct individuals to shape an elite group. Maybe, we were very fortunate to be placed in a similar group.

Albeit many would feel that the assignment part would could really compare to the relationship segment, I think both are as similarly critical and supplement one another.

What makes our group in the long run forms into a high-task group is really the great relationship we set up reroute. As we develop nearer together, we really built up a feeling of having a place with the group. It's a "we're all in this together" sort of inclination. We need everybody to do well since we are a group.

One thing that I cherished about our group is that we cooperate as one group, and not as a person. I recollected how we put in a great deal of exertion to guarantee that each individual from the group has great substance. We gave each other plan to create content. With everything taken into account, in the wake of doing this PayMan venture together, I have come to understand that high relationship is an imperative segment in a group. It might be the factor that abundance the group to accomplish a high-task act.

In conclusion, we confronted numerous issues when we built up this task however we tackled this issue together. There are a few pieces of our task was troublesome for us to grow however this was conceivable to finish in view of the soul of our group.

# payMan

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