

GUJARAT TECHNOLOGICAL UNIVERSITY

Chandkheda, Ahmedabad

Affiliated



BITS
Edu Campus
Vadodara



Babaria Institute of Technology

A
Project Report
On

CASHLESS CITY TRANSPORTATION SYSTEM

Prepared as a part of the requirements for the subject of

PROJECT - II

B. E. IV, Semester – VIII

(Computer Science and Engineering)

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(2018-2019)
Academic year

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TRANSPORTATION SYSTEM**

Guided by
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CERTIFICATE

This is to certify that the project report entitled **CASHLESS CITY TRASNPORATION SYSTEM** is prepared and presented by **Siddharth Rajput, Drashti Shah, and Jainam Shah** bearing Enrolment Nos. **[160053107017, 160053107020, 160053107021]** respectively 4th Year of **B.E (Computer Science & Engineering)** and their work is satisfactory.

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With Regards,

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ABSTRACT

As name suggest “Cash-less City transportation system” is an intended project to develop a system that makes inter-city travelling cashless and transaction less. So the main idea is that to provide a universal QR-Code based card that will be valid to every city bus. You just need to go to Authorized City Office (ACO) and ask for registration, they will issue a card based on your required package (such as for month, 15-days, 6-months & yearly etc.). Now you just need to swipe the card issued by ACO and if it is valid then you can ride. This system can be revolutionary in terms of Digital India, and takes India towards the cash-less transportation.

CASHLESS CITY TRANSPORTATION SYSTEM

1 – INTRODUCTION

1.1 Problem Statement

1.2 Aims and Objectives

1.3 Problem Specification

1.4 Literature Review

1.5 Plan of Work

1.6 Software/Tools Required

CASHLESS CITY TRANSPORTATION SYSTEM

1.1 Problem Statement

The current city bus system consist some loop holes. Currently all the process is manually done by human force and which generates delays in the daily passenger's card issuing process. Whenever we want to travel anywhere using a city bus we need to carry change as the price of tickets many times occur in odd numbers i.e. 7,9,11,13 etc. Due to that problem many person avoid taking city bus. Eventually even many passengers don't ask for change and that small amounts is overlooked and becomes large amount. Besides this, many bogus passengers duplicate the daily pass and travel for free which is loss to government only. Many passengers intend to buy pas with online transactions / payments but unfortunately there is no such facility available to buy tickets online or pay by digital means of payment.

CASHLESS CITY TRANSPORTATION SYSTEM

1.2 Aims and Objective

The purpose of this developing this application is that it makes things easier for passenger who are travelling by city bus. While travelling now a days it's a common problem that everyone have to bare 1-2-5 Rs change. Now mostly 60% of travellers don't carry change. Though 5 Rs change still can be expected but 1-2 Rs change is hard to bare. Even now a days it's very next to impossible to see 0.50 Rs or 0.25 Rs change available. Due to this reasons government can also cannot split exact amount with tax on fare. So our main purpose and aim is to provide cashless transactions facility while travelling by city bus.

We are looking forward to develop the Web Application & Mobile App (Now: Android only) which becomes the gateway to this city transportation system which will provide information regarding fare and bus routes.

It's always better to do things in advance. We believe that our passengers should also have right to book tickets in advance regarding their trip. So they don't have to worry about purchasing tickets and all stuff while their trip.

Sometimes we forget where we travelled or from which route we have travelled. So we are also making the feature that will store your personal trip details.

In order to provide authorized every cards we will link it with any Indian official document.

CASHLESS CITY TRANSPORTATION SYSTEM

1.3 Problem Specification

As name suggest “Cash-less City transportation system” is an intended project to develop a system that makes inter-city travelling cashless and transaction less. So the main idea is that to provide a universal RFID card that will be valid to every city bus. You just need to go to Authorized City Office (ACO) and ask for registration, they will issue a card based on your required package (such as for month, 15-days, 6-months & yearly etc.). Now you just need to swipe the card issued by ACO and if it is valid then you can ride. This system can be revolutionary in terms of Digital India, and takes India towards the cash-less transportation. Even it is very helpful when it comes to track the travel details of any person.

CASHLESS CITY TRANSPORTATION SYSTEM

1.4 LITERATURE REVIEW

1.4.1 Android Studio: -

Android Studio is the official integrated development environment (IDE) for Android platform development.

It was announced on May 16, 2013 at the Google I/O conference. Android Studio is freely available under the Apache License 2.0.

Android Studio was in early access preview stage starting from version 0.1 in May 2013, then entered beta stage starting from version 0.8 which was released in June 2014. The first stable build was released in December 2014, starting from version 1.0.

Based on JetBrains IntelliJ IDEA software, Android Studio is designed specifically for Android development. It is available for download on Windows, Mac OS X and Linux, and replaced Eclipse Android Development Tools (ADT) as Google's primary IDE for native Android application development.

1.4.2 PHP: -

PHP is a server-side scripting language designed primarily for web development but also used as a general-purpose programming language. Originally created by Rasmus Lerdorf in 1994, the PHP reference implementation is now produced by The PHP Development Team. PHP originally stood for *Personal Home Page*, but it now stands for the recursive acronym *PHP: Hypertext Pre-processor*.

PHP code may be embedded into HTML or HTML5 markup, or it can be used in combination with various web template systems, web content management systems and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable. The web server software combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications.

The standard PHP interpreter, powered by the Zend Engine, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge.

CASHLESS CITY TRANSPORTATION SYSTEM

1.4.3 MySQL: -

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language. The MySQL development project has made its source code available under the terms of the GNU General Public License, as well as under a variety of proprietary agreements. MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation. For proprietary use, several paid editions are available, and offer additional functionality.

MySQL is a central component of the LAMP open-source web application software stack (and other "AMP" stacks). LAMP is an acronym for "Linux, Apache, MySQL and Perl/PHP/Python". Applications that use the MySQL database include: TYPO3, MODx, Joomla, WordPress, phpBB, MyBB, and Drupal. MySQL is also used in many high-profile, large-scale websites, including Google (though not for searches), Facebook, Twitter, Flickr, and YouTube.

CASHLESS CITY TRANSPORTATION SYSTEM

1.5 Plan of Work

We have intended two applications for our project

1. Android Application

- ↳ This is for Scanning the QR Code.
- ↳ This will be operated by both Conductor and Passengers.
- ↳ Conductors for scanning.
- ↳ Passengers for viewing their details and other activities.

2. Web Application

- ↳ This is for all users.
- ↳ Main Purpose of this to serve all the basic services of our project modules.
- ↳ Registration of passengers will be done here.
- ↳ Renewal and other services is also available on web App.

CASHLESS CITY TRANSPORTATION SYSTEM

1.6 Software/Tools Required

- Android enabled mobile or tablet.
- Android 4.0 or higher version.
- QR Scanner (optional).
- Ticket receipt printer.
- Web application host.
- Play store subscription.
- PC (Personal Computer) set.
- QR Printer.

CASHLESS CITY TRANSPORTATION SYSTEM

2. DESIGN: ANALYSIS, DESIGN METHODOLOGY AND IMPLEMENTATION STRATEGY

2.1 Observation Matrix (AEIOU Summary)

2.2 Ideation Canvas

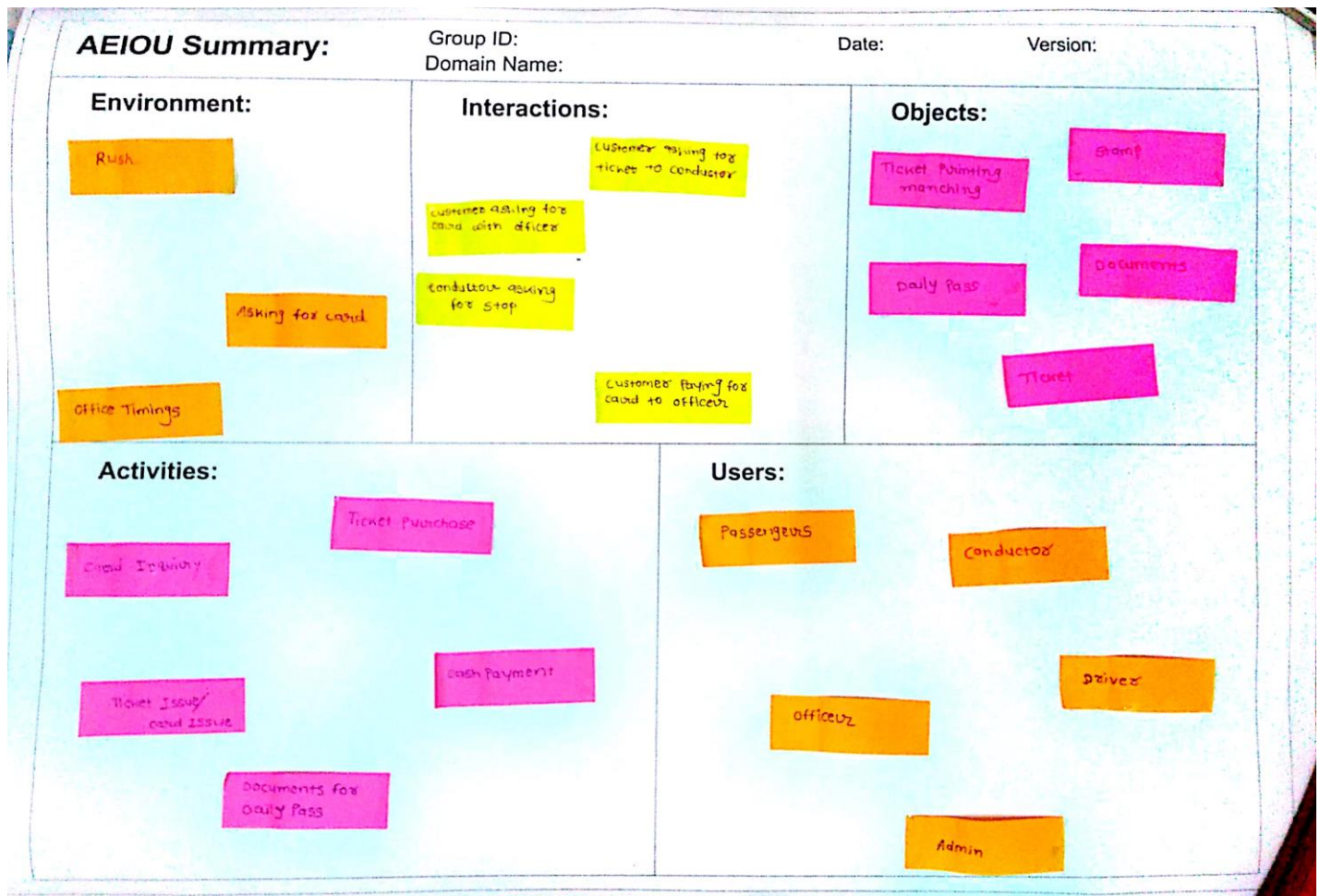
2.3 Product Development Canvas

2.4 Empathy Mapping Canvas

2.5 Diagrams

CASHLESS CITY TRANSPORTATION SYSTEM

2.1.1 Activity



Activities are goal-directed sets of actions—paths towards things people want to accomplish. It is the modes people work in, and the specific activities and processes they go through

- Card Inquiry
- Ticket Issue/card Issue
- Ticket Purchase
- Cash Payment
- Documents for Daily pass

CASHLESS CITY TRANSPORTATION SYSTEM

2.1.2 Environment

Environments include the entire arena where activities take place. It is the character and function of the space overall, of each individual's spaces, and of shared spaces

- Rush
- Asking for card
- Office timings

2.1.3 Interaction

Interactions are between a person and someone or something else; they are the building blocks of activities. It is special interactions between people, objects in their environment.

- Customer asking for card to officer
- Customer asking for ticket to conductor
- Customer paying for card to officer

2.1.4 Object

Objects are building blocks of the environment, key elements sometimes put to complex or unintended uses (thus changing their function, meaning and context). They are the objects and devices people have in their environments and the way they relate to their activities.

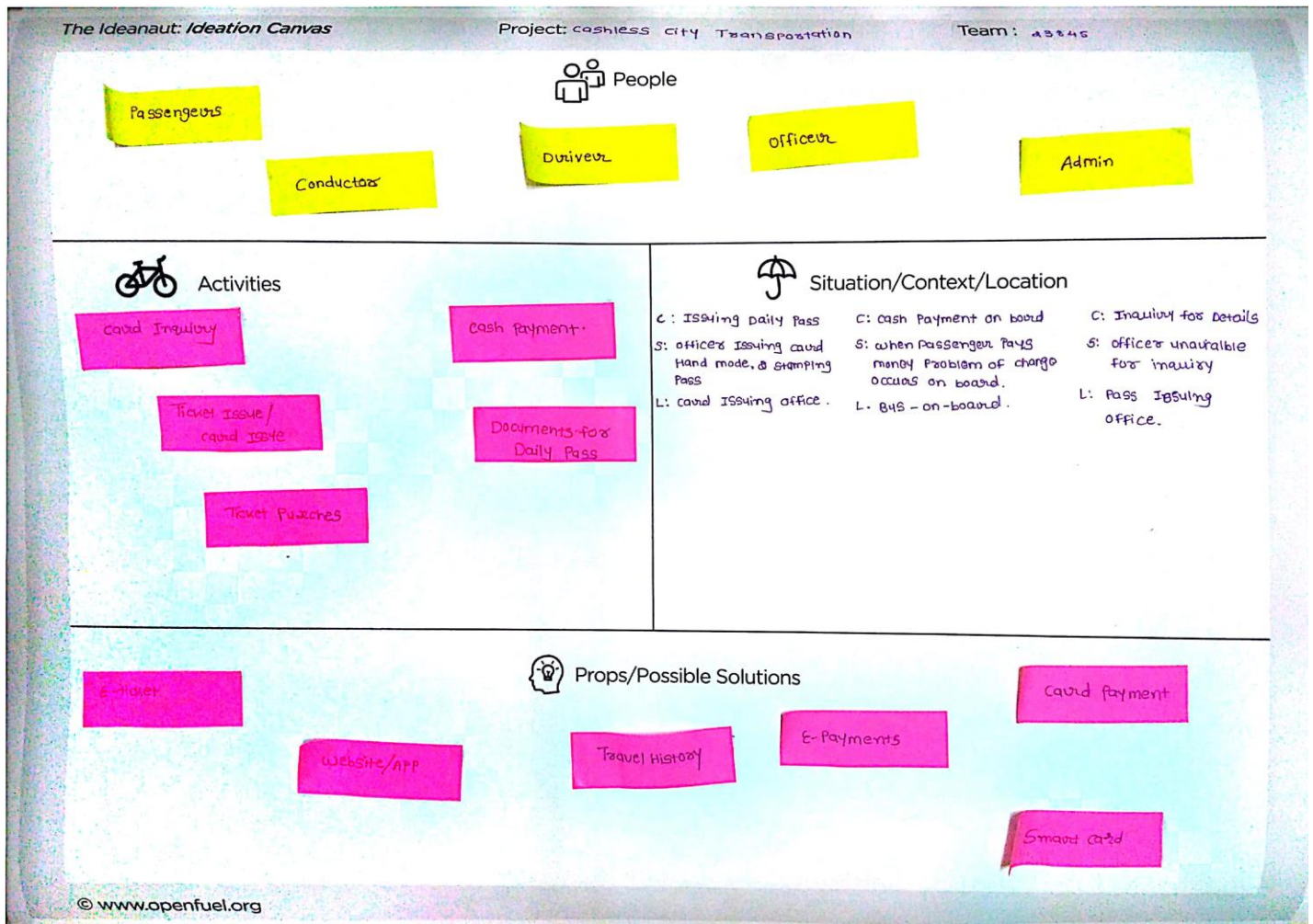
- Ticket Printing machine
- Stamp
- Daily pass
- Tickets
- Documents

2.1.5 Users

- Passengers
- Conductor
- Driver
- Officer
- Admin

CASHLESS CITY TRANSPORTATION SYSTEM

2.2 Ideation Canvas



2.2.1 People

- Passengers
- Conductor
- Driver
- Officer
- Admin

2.2.2 Activities

- Card Inquiry
- Ticket Issue/card Issue
- Ticket Purchase
- Cash Payment
- Documents for Daily pass

CASHLESS CITY TRANSPORTATION SYSTEM

2.2.3 Situation/Context/Location

- **C:** Issuing Daily pass
- **S:** Officer issuing card hand made, and stamping pass.
- **L:** Issuing office

- **C:** Cash Payment on board
- **S:** when passenger pays money problem of change occurs on board.
- **L:** Bus on board

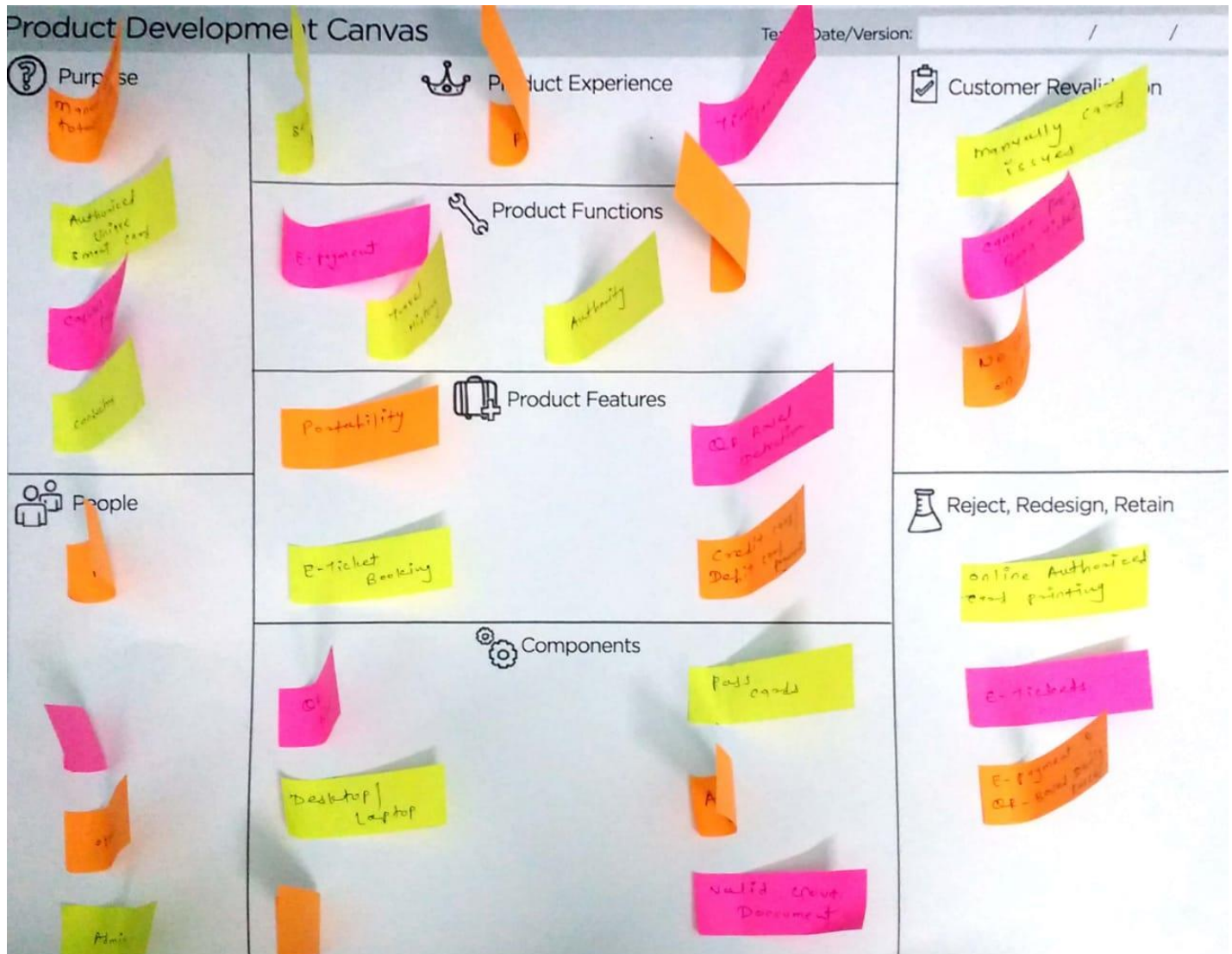
- **C:** Inquiry for details
- **S:** Officer unavailable for inquiry.
- **L:** Pass Issuing office

2.2.4 Props/Possible Solutions:

- E-Ticket
- Website / App
- Travel History
- E-Payment
- Debit/Credit card Payment
- Smart card.

CASHLESS CITY TRANSPORTATION SYSTEM

2.3 Product Development Canvas



2.3.1 Purpose

- Manual Work to be totally eliminated.
- Authorized unique smart card.
- Cashless payment.

2.3.2 People

- Passengers
- Conductor
- Driver
- Officer
- Admin

CASHLESS CITY TRANSPORTATION SYSTEM

2.3.3 Product Experience

After the introduction of this product, the user will feel relaxed.

- Time saving
- Secured
- Authorized
- Reliable

2.3.4 Product Function

- E-Payment
- Travel History
- QR-Code Generation
- Authority

2.3.5 Product Features

- Portability
- E-Ticket Booking
- QR Based Detection
- Credit / Debit card Payment

2.3.6 Components

- Mobile / Tablet (App)
- Desktop / Laptop (Website)
- QR Printer
- Active Internet Connection
- Pass Cards
- Valid Govt. Document

CASHLESS CITY TRANSPORTATION SYSTEM

2.3.7 Customer Revalidation

- No Change on Board
- Manually card issue
- Cannot pre-book tickets

2.3.8 Reject, Redesign, Retain

- E-Payment and QR Based daily Pass.
- Online authorized card printing.
- E-Tickets.

CASHLESS CITY TRANSPORTATION SYSTEM

2.4 Empathy Mapping Canvas

Design For Date		Design By Version	
USER	Conductor Driver	STAKEHOLDERS	passenger Admin Officer
ACTIVITIES			
Card saving Ticket issue card use Ticket purchase cash payment Documents for Daily passes			
STORY BOARDING			
HAPPY Vmc Bus service provides & covers many places & Bus frequency is high, Namally its provide fast facility.			
HAPPY Vmc issued Daily Passes so that we don't have to buy tickets Every day.			
SAD while travelling through efty bus having change is based. we have to suffer & change of small amount bearing every time makes big amount.			
SAD manual process of ticket buying makes hard as we cannot buy tickets in advance or no facility to by tickets online.			

2.4.1 Users

- Passengers
- Conductor
- Driver
- Officer
- Admin

2.4.2 Stakeholders

- Passenger
- Admin
- Officer

CASHLESS CITY TRANSPORTATION SYSTEM

2.4.3 Activites

- Card Inquiry
- Ticket Issue/card Issue
- Ticket Purchase
- Cash Payment

2.4.4 Story Boarding

HAPPY STORY

1. VMC Bus service provides and covers many places and bus frequency is high. Normally it provides fast facility.
2. VMC issues daily pass so that we don't have to purchase tickets every day.

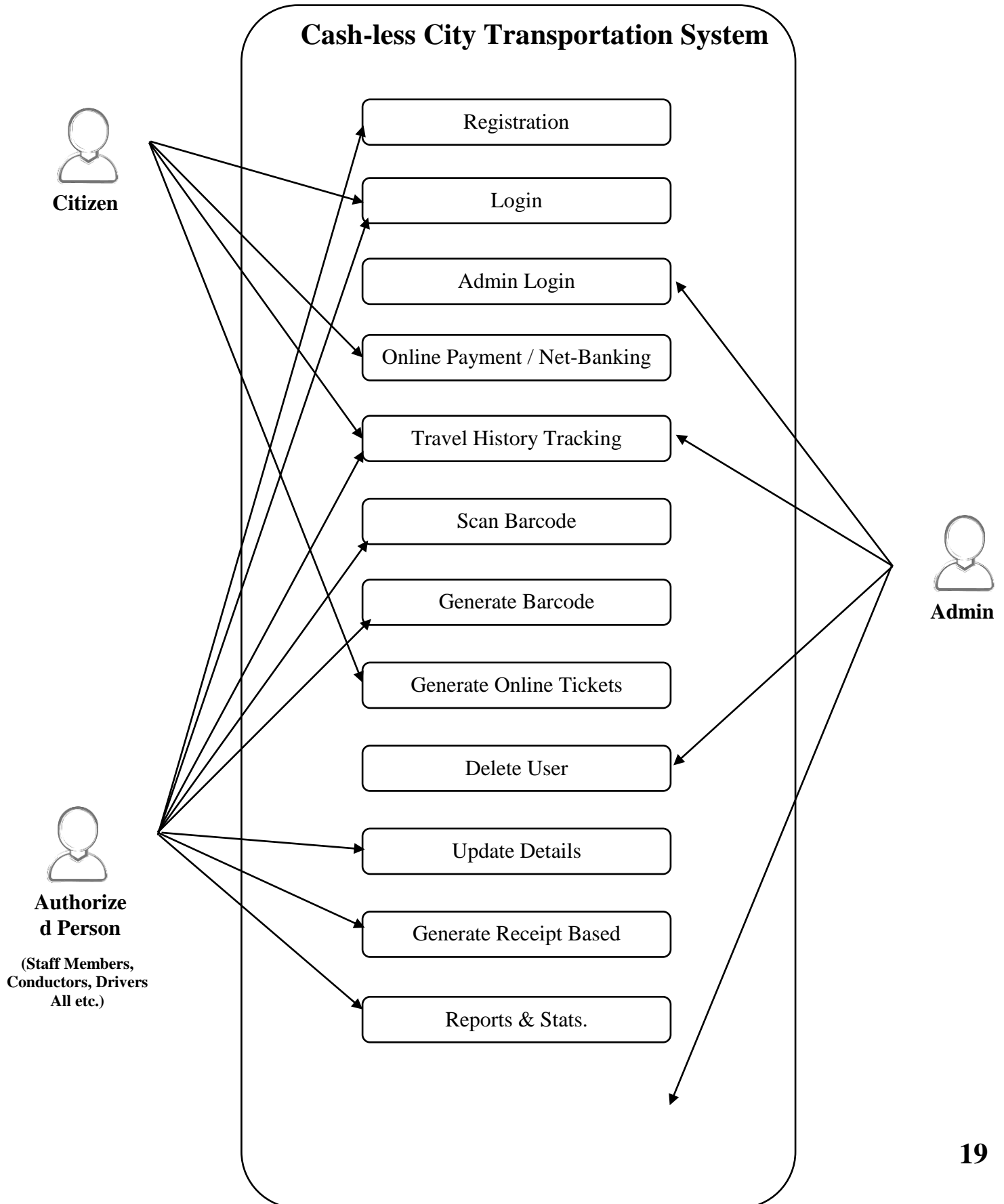
SAD STORY

1. While travelling through city bus bearing change is hard. We have to suffer and change of small amount bearing every time makes big amount of loss.
2. Manual process of ticket buying makes hard. We cannot buy tickets in advance or no facility to buy tickets online.

CASHLESS CITY TRANSPORTATION SYSTEM

2.5 Diagrams

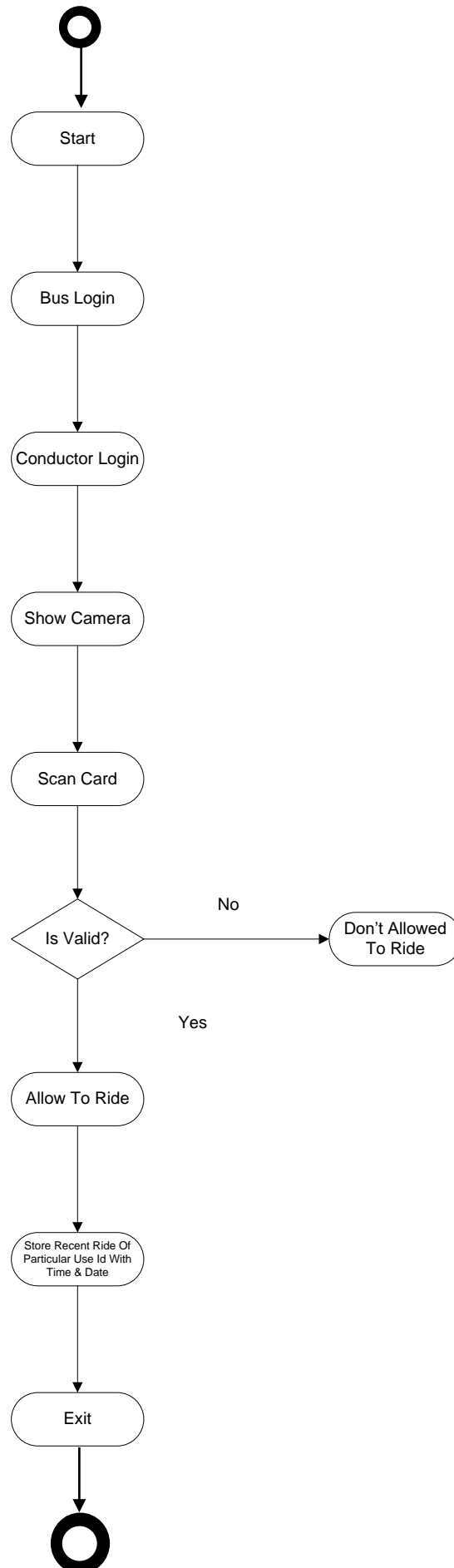
2.5.1 Use-Case Diagram



CASHLESS CITY TRANSPORTATION SYSTEM

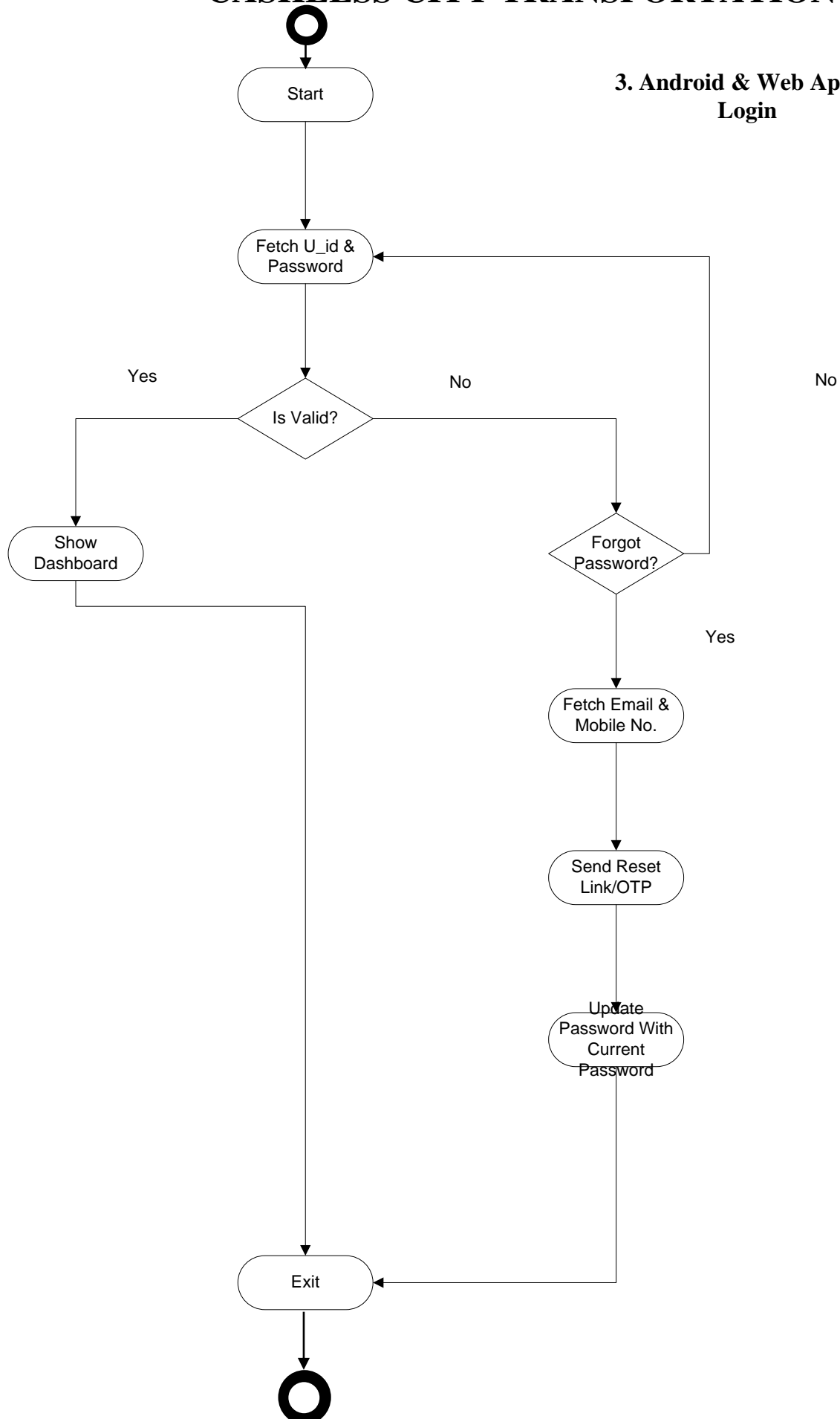
2.5.2 Activity Diagram

1. Registration



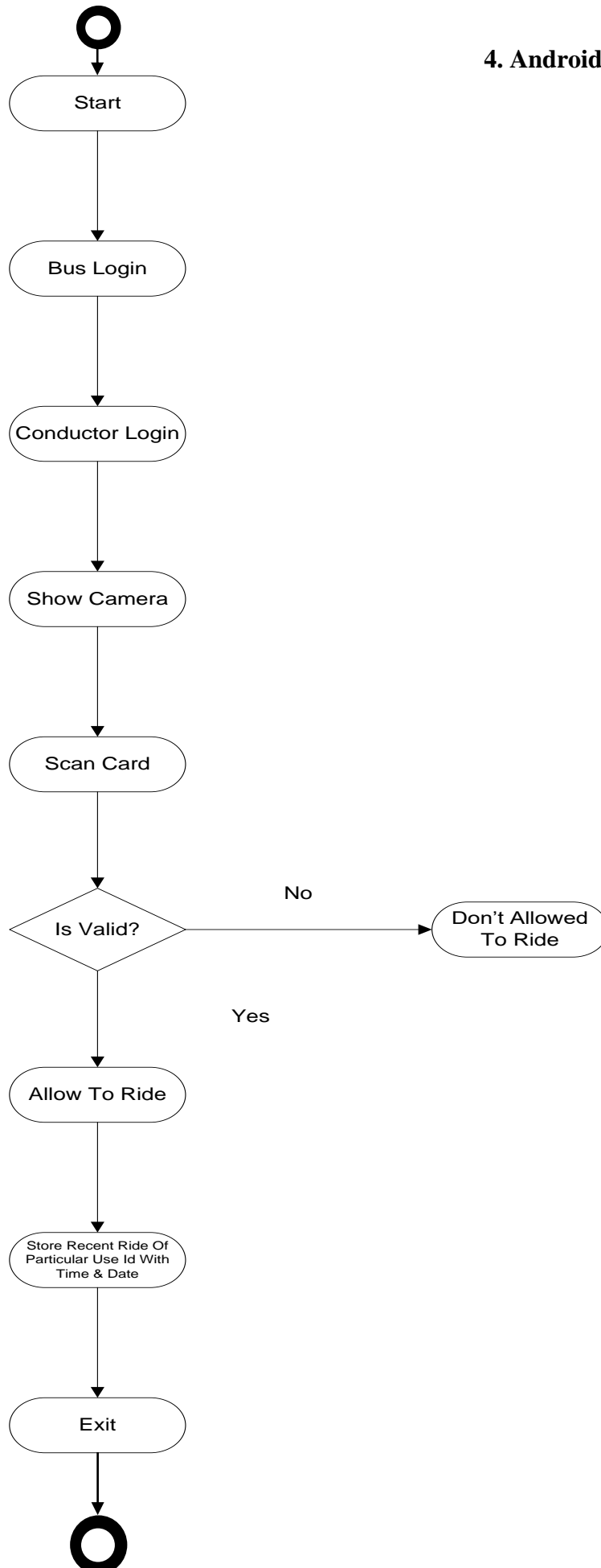
CASHLESS CITY TRANSPORTATION SYSTEM

3. Android & Web App to Login



CASHLESS CITY TRANSPORTATION SYSTEM

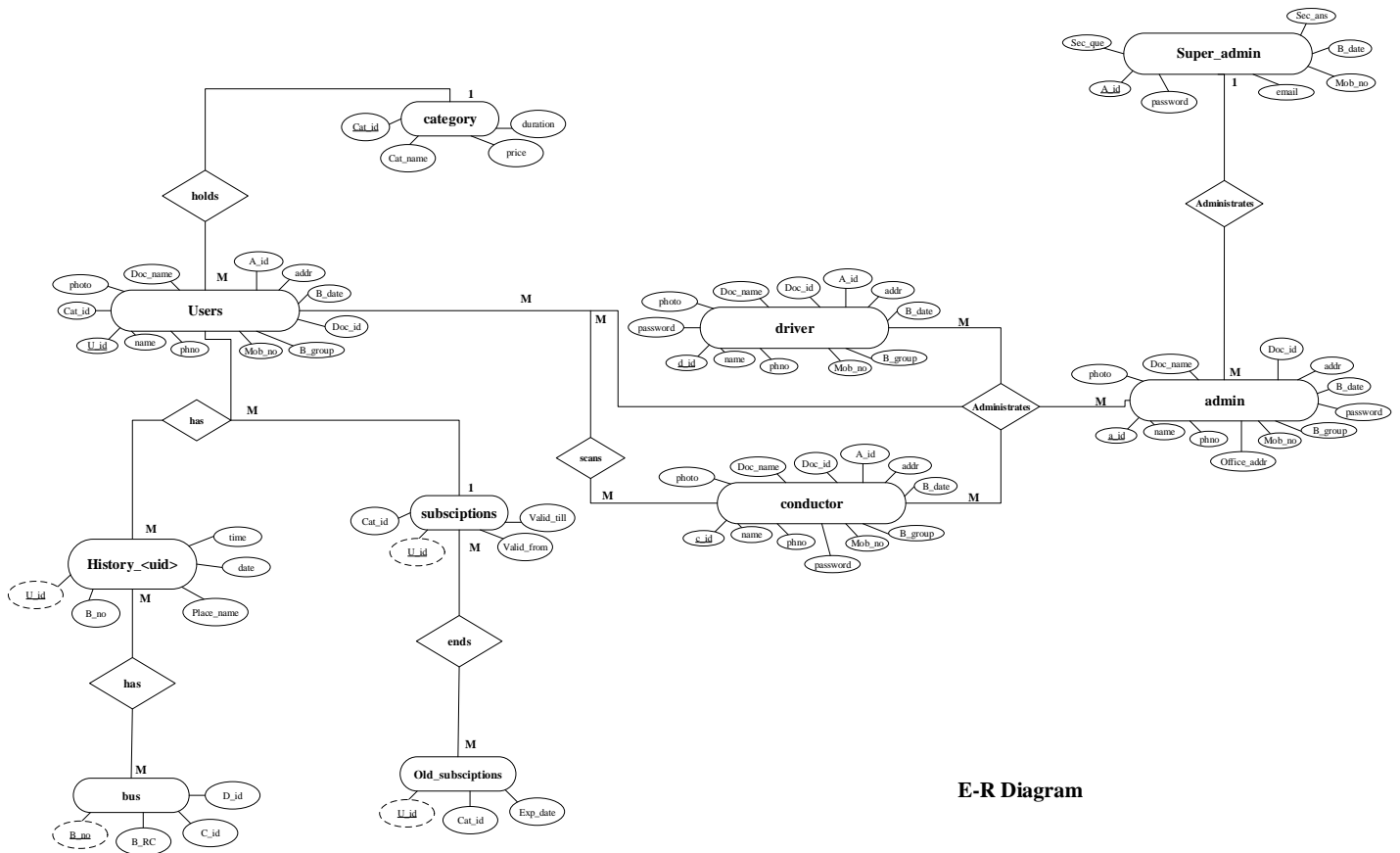
4. Android App to scan card



CASHLESS CITY TRANSPORTATION SYSTEM

2.5.3 ER Diagram

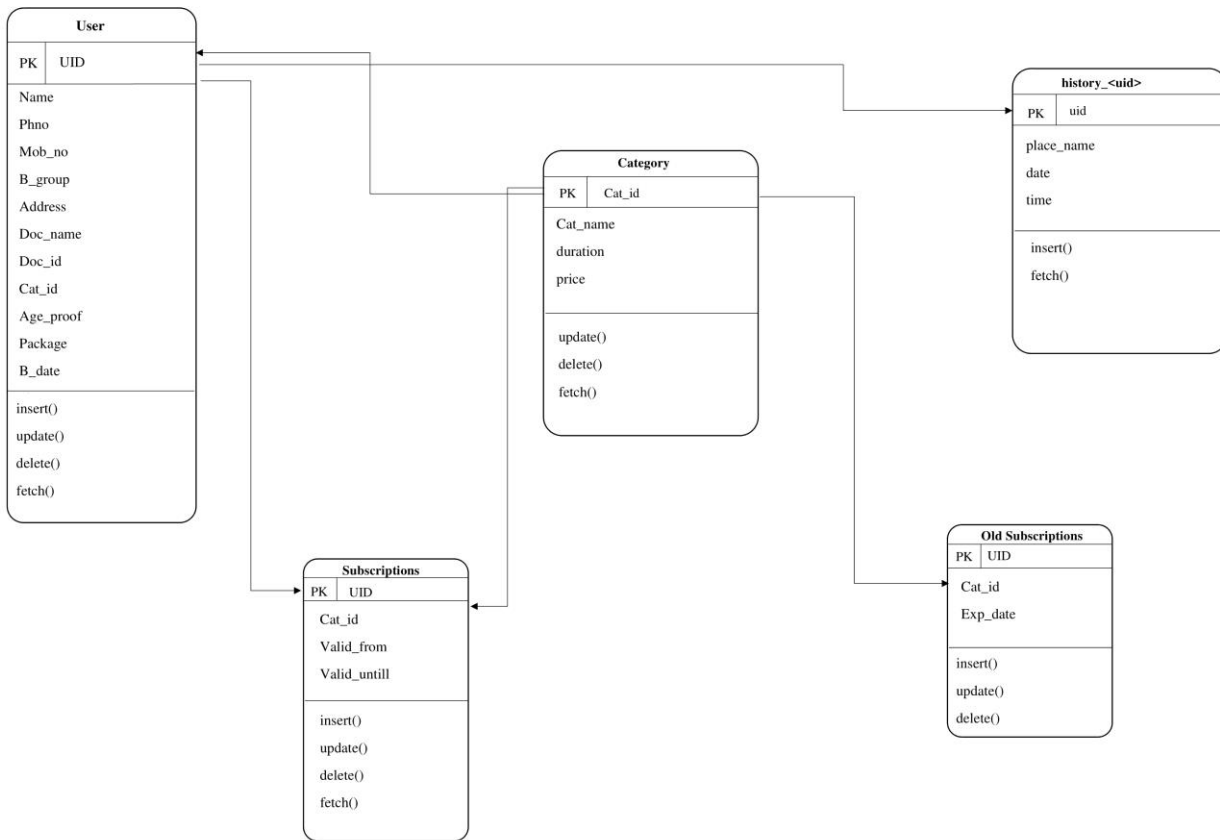
Cashless City Transportation System



E-R Diagram

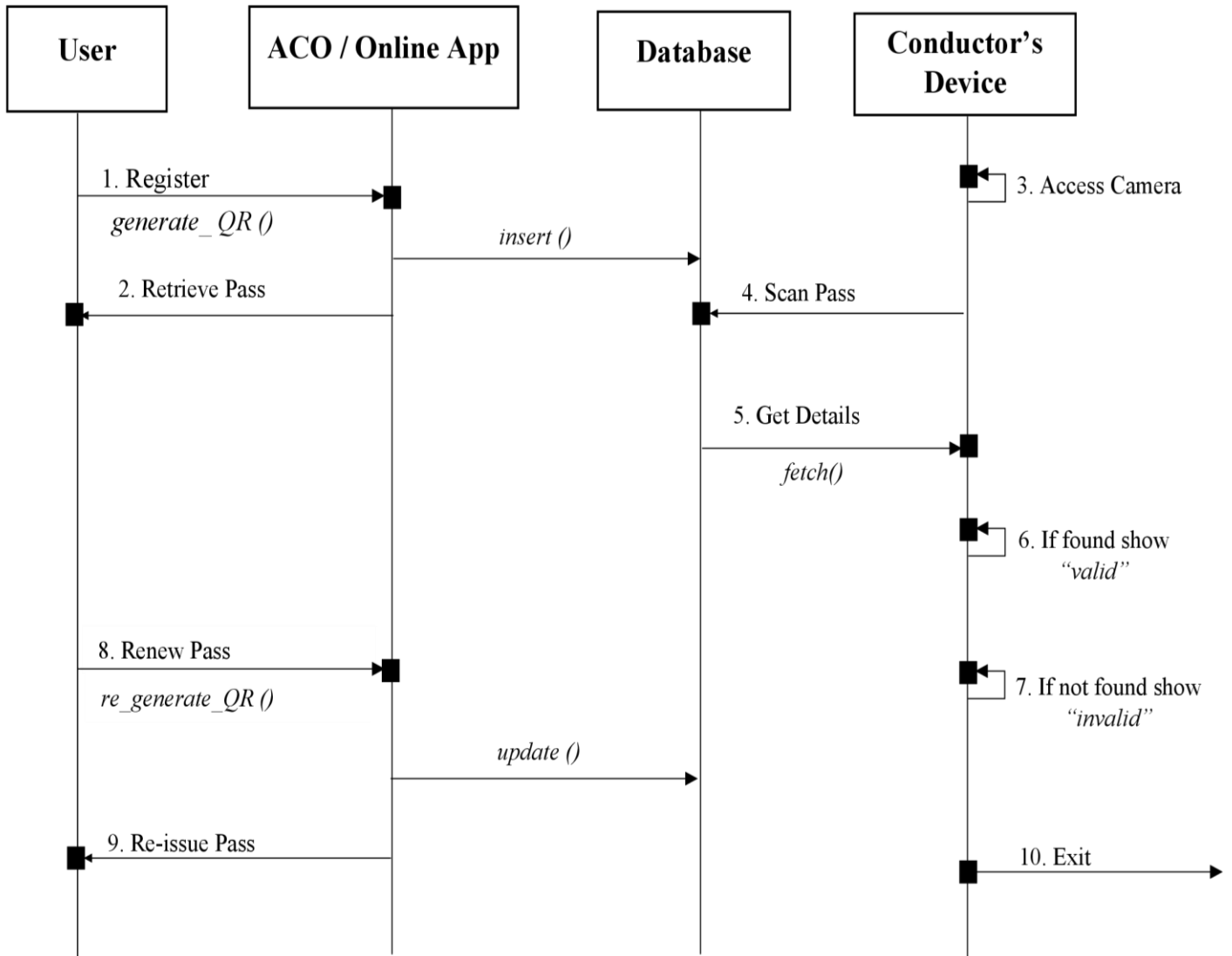
CASHLESS CITY TRANSPORTATION SYSTEM

2.5.3 Class Diagram



CASHLESS CITY TRANSPORTATION SYSTEM

2.5.3 Sequence Diagram



CASHLESS CITY TRANSPORTATION SYSTEM

3. IMPLEMTATION

3.1 Modules in the System

3.2 Data Dictionary

3.3 Screenshots

3.4 Results

3.5 Testing and validation

CASHLESS CITY TRANSPORTATION SYSTEM

3.1 Modules in the system

QR Based Card: In our system every registered passenger will get QR based smart cards. This smart card will be scanned at the time of boarding on bus. When passengers will go to the office to get new card their unique id QR code will be generated.

QR Code scanning: We will develop a system that will scan the QR Codes of passengers and check that whether they are valid authorized customers are not.

Travel History: We will even save the every records of passengers travelling within the bus. You can login and fetch the travel history of every person they have travelled.

E-Payment: Travellers can pay online for their new smart cards or their renewal package. Even while applying for their new smart cards at office, they can pay by their debit / credit card.

E-Ticketing: Travellers will able to purchase the tickets from anywhere. They just have to pay online and their tickets will be there.

Login: Login facility available for every passengers so that they can purchase tickets, see their travel history, apply for renewal pass etc. Login facility for officers at authorized centre desk to register new passengers for daily pass.

Registration: Registration can be done by any officers at desk to register new users/passengers for their daily pass. It will automatically generate the new unique_id with QR Code.

Administration: Every system needs administration. So we will also develop the admin dashboard, so that they can watch and manipulate the system users and officers. They can grant different privileges to system. Even they can add / delete / update the users.

CASHLESS CITY TRANSPORTATION SYSTEM

3.2 Data Dictionary

Notations:

PKY: Primary Key **UKY:** Unique Key

Table Name: Users

Field Name	Field Datatype	Datatype Size	Constraint
UID	Int	10	PKY
Name	Varchar	100	NOT NULL
Phno	int	10	NULL
Mob_no	Varchar	10	NOT NULL
B_group	Varchar	5	NOT NULL
Address	Varchar	500	NOT NULL
Doc_name	Varchar	100	NOT NULL
Doc_id	Varchar	50	NOT NULL
cat_id	Varchar	10	NOT NULL
Age_proof	Varchar	500	NOT NULL
Package	Varchar	10	NOT NULL
B_date	Date	N/A	NOT NULL
Photo	Varchar	500	NOT NULL

Table Name: Category

Field Name	Field Datatype	Datatype Size	Constraint
cat_id	Varchar	10	PKY
Cat_name	Varchar	50	UKY
Duration	Varchar	20	NOT NULL
Price	Int	4	NOT NULL

CASHLESS CITY TRANSPORTATION SYSTEM

Table Name: Subscriptions

Field Name	Field Datatype	Datatype Size	Constraint
UID	Int	10	PKY
cat_id	Varchar	10	UKY
Valid_from	Date	N/A	NOT NULL
Valid_untill	Date	N/A	NOT NULL

Table Name: Old_Subscriptions

Field Name	Field Datatype	Datatype Size	Constraint
UID	Int	10	PKY
cat_id	Varchar	10	UKY
Exp_date	Date	N/A	NOT NULL

Table Name: history_<UID>

Field Name	Field Datatype	Datatype Size	Constraint
UID	Int	10	PKY
Place_name	Varchar	100	NOT NULL
Date	Date	N/A	NOT NULL
Time	Varchar	10	NOT NULL

CASHLESS CITY TRANSPORTATION SYSTEM

Table Name: super_admin

Field Name	Field Datatype	Datatype Size	Constraint
A_id	Int	10	PKY
Password	Varchar	100	NOT NULL
Email	Varchar	100	NOT NULL
Mob_no	Int	15	NOT NULL
B_date	Date	N/A	NOT NULL
Sec_que	Varchar	200	NOT NULL
Sec_ans	Varchar	200	NOT NULL

Table Name: admin

Field Name	Field Datatype	Datatype Size	Constraint
A_id	Int	10	PKY
Name	Varchar	100	NOT NULL
Phno	int	10	NULL
Mob_no	Varchar	10	NOT NULL
B_group	Varchar	5	NOT NULL
Address	Varchar	500	NOT NULL
Doc_name	Varchar	100	NOT NULL
Doc_id	Varchar	50	NOT NULL
password	Varchar	10	NOT NULL
Age_proof	Varchar	500	NOT NULL
Package	Varchar	10	NOT NULL
B_date	Date	N/A	NOT NULL

CASHLESS CITY TRANSPORTATION SYSTEM

Photo	Varchar	500	NOT NULL
-------	---------	-----	----------

Table Name: Driver

Field Name	Field Datatype	Datatype Size	Constraint
d_id	Int	10	PKY
Name	Varchar	100	NOT NULL
Phno	int	10	NULL
Mob_no	Varchar	10	NOT NULL
B_group	Varchar	5	NOT NULL
Address	Varchar	500	NOT NULL
Doc_name	Varchar	100	NOT NULL
Doc_id	Varchar	50	NOT NULL
password	Varchar	10	NOT NULL
Age_proof	Varchar	500	NOT NULL
Package	Varchar	10	NOT NULL
B_date	Date	N/A	NOT NULL
Photo	Varchar	500	NOT NULL

CASHLESS CITY TRANSPORTATION SYSTEM

Table Name: Conductor

Field Name	Field Datatype	Datatype Size	Constraint
c_id	Int	10	PKY
Name	Varchar	100	NOT NULL
Phno	int	10	NULL
Mob_no	Varchar	10	NOT NULL
B_group	Varchar	5	NOT NULL
Address	Varchar	500	NOT NULL
Doc_name	Varchar	100	NOT NULL
Doc_id	Varchar	50	NOT NULL
password	Varchar	10	NOT NULL
Age_proof	Varchar	500	NOT NULL
Package	Varchar	10	NOT NULL
B_date	Date	N/A	NOT NULL
Photo	Varchar	500	NOT NULL

Table Name: Buses

Field Name	Field Datatype	Datatype Size	Constraint
B_no	Int	10	PKY
B_RC	Varchar	100	NOT NULL
C_id	Varchar	50	NOT NULL
D_id	Varchar	50	NOT NULL

CASHLESS CITY TRANSPORTATION SYSTEM

Table Name: one_day

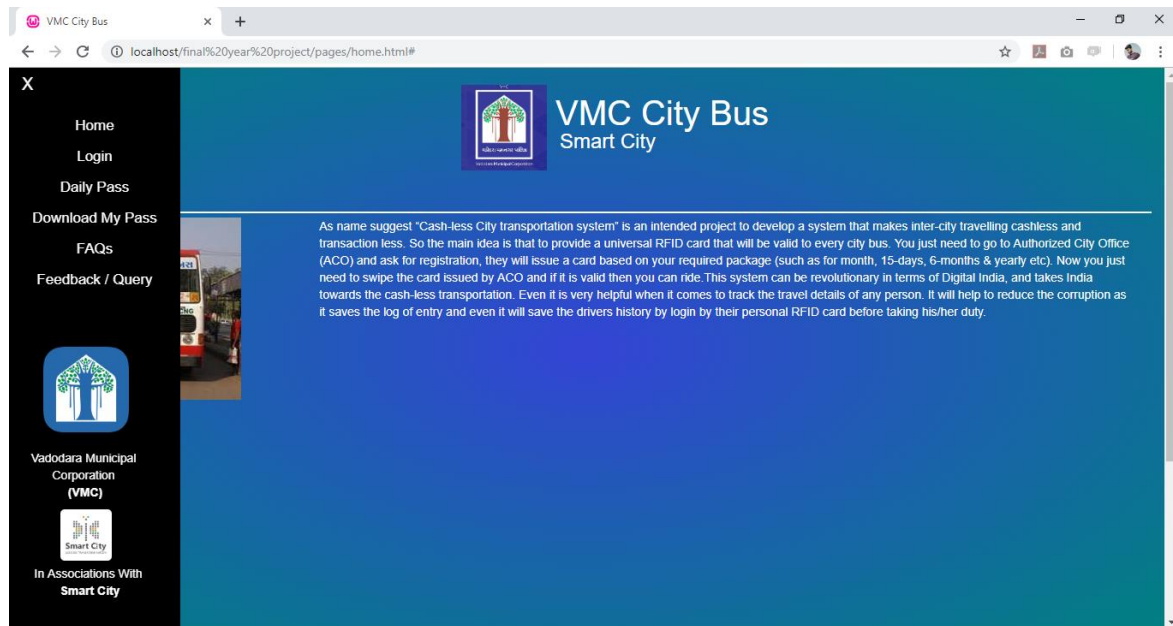
Field Name	Field Datatype	Datatype Size	Constraint
Uid	Int	11	PKY
Name	Varchar	50	NOT NULL
Mob	Int	12	NOT NULL
Email	Varchar	50	NOT NULL
C_id	Varchar	5	NOT NULL
Date	Date	N/A	NOT NULL

CASHLESS CITY TRANSPORTATION SYSTEM

3.3 Screenshots

Web Application

1. Home Page

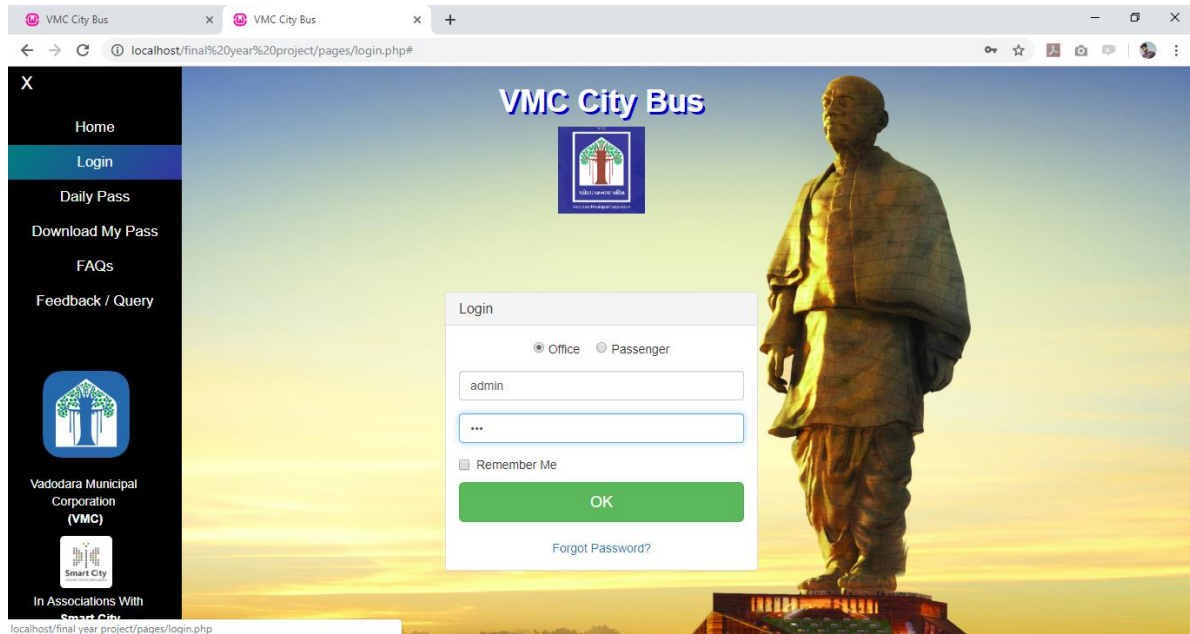


2. Daily Pass

The screenshot shows the 'Daily Pass' form on the VMC City Bus Smart City web application. The form is titled 'Daily Pass' and features a blue bus icon. It includes input fields for 'Full Name', 'Mobile Number', 'Email', and 'dd-mm-yyyy'. Below the input fields, the 'Total Price : 50 Rs/-' is displayed. A green 'Pay Now' button is located at the bottom right of the form. The footer of the page contains contact information: 'Contact Us: +91-999-9999-999' and 'Email: vadcitybus@vmc.com', along with the text 'Vadodara Municipal Corporation (VMC) - City Bus' and 'All Copyrights Reserved © 2019'.

CASHLESS CITY TRANSPORTATION SYSTEM

3. Login Page

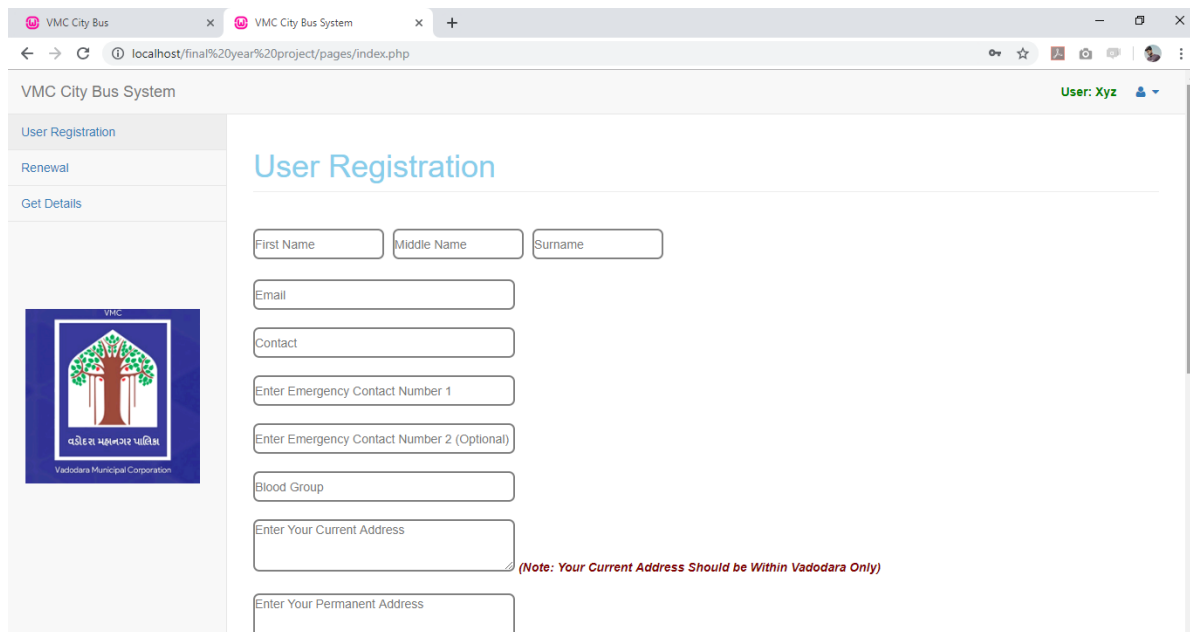


The screenshot shows the login page of the VMC City Bus system. The page has a dark sidebar on the left with navigation links: Home, Login, Daily Pass, Download My Pass, FAQs, and Feedback / Query. Below these links is the VMC logo and text: "Vadodara Municipal Corporation (VMC)" and "In Associations With Smart City". The main content area features a large background image of a statue of Mahatma Gandhi. Overlaid on this is a "Login" form with the following elements:

- Radio buttons for "Office" (selected) and "Passenger".
- A text input field containing "admin".
- A password input field with masked characters "..."
- A checkbox for "Remember Me".
- A green "OK" button.
- A link for "Forgot Password?".

The browser's address bar shows the URL: `localhost/final%20year%20project/pages/login.php#`.

4. Dashboard (User Registration)





The screenshot shows the user registration dashboard of the VMC City Bus System. The page has a light gray header with the title "VMC City Bus System" and a user profile indicator "User: Xyz". The left sidebar contains navigation links: "User Registration" (active), "Renewal", and "Get Details". Below these links is the VMC logo and text: "Vadodara Municipal Corporation". The main content area is titled "User Registration" and contains the following form fields:

- First Name, Middle Name, and Surname (separate input fields).
- Email (text input field).
- Contact (text input field).
- Enter Emergency Contact Number 1 (text input field).
- Enter Emergency Contact Number 2 (Optional) (text input field).
- Blood Group (text input field).
- Enter Your Current Address (text input field).
- A note: *(Note: Your Current Address Should be Within Vadodara Only)*.
- Enter Your Permanent Address (text input field).

The browser's address bar shows the URL: `localhost/final%20year%20project/pages/index.php`.

CASHLESS CITY TRANSPORTATION SYSTEM

5. Dashboard (User Registration Verification)



VMC City Bus
Smart City

Registration Details

Name: **Hetal J Shah**
Email Address: **hetaljshah2612@gmail.com**
Contact Number: **8490808660**
Emergency Number #1: **8490808766**
Emergency Number #2: **9099395540**
Blood Group: **B+**
Current Address: **3, Sharda Duplex, Near Ambalal Park Society, Poonam Complex Road, Waghodia Road**
Permanent Address: **3, Sharda Duplex, Near Ambalal Park Society, Poonam Complex Road, Waghodia Road**
State: **Gujarat**
City: **Vadodara**
Document Name: **aadhar**
Document ID: **741085209630**
Category: **C05**
Document Proof: [View](#)
Package: **6M**
Birth-date: **1974-12-26**
Photo: [View](#)
Default Password: **104632**
(Note: Please Inform User to Note-down his/her Default Password for Future Login Credentials)

Register

Contact Us: +91-999-9999-999

Email: vadcitybus@vmc.com

Vadodara Municipal Corporation (VMC) - City Bus

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6. Dashboard (QR Code Pass Generation)


VMC City Bus System

User Registration

Renewal


Get Details

User Registration



VMC City Bus
Regular Pass
Name: **Jainam J Shah**
Contact No: **8490808766**
Emergency Contact: **9099395540**
Blood Group: **B+**

Print Front



VMC City Bus
Regular Pass
User ID: **1**
Plan Type: **Student**
Valid From: **15-10-2018**
Valid To: **15-10-2019**

Print Back

Done

CASHLESS CITY TRANSPORTATION SYSTEM

7. Dashboard (Renewal)

VMC City Bus System

User Registration

Renewal

Get Details

VMC
વડોદરા નગરપાલિકા
Vadodara Municipal Corporation


Renewal

12345

Search Reset

Search Result

Status: Ready to Renew on 12/12/2018



Name:	Jainam J Shah
Contact Number:	8490808766
E-mail ID:	jainamshh28.js@gmail.com

8. Download My Pass

VMC City Bus Smart City

Download Pass



Email Address

Mobile Number

jainamshh28.js@gmail.com

12-04-2019

Get OTP

Contact Us: +91-999-9999-999 Email: vadcitybus@vmc.com

Vadodara Municipal Corporation (VMC) - City Bus

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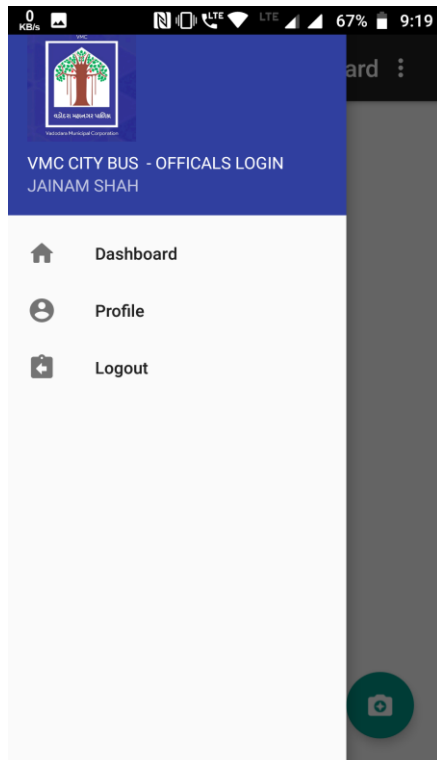
CASHLESS CITY TRANSPORTATION SYSTEM

Android Application

1. App Home Screen

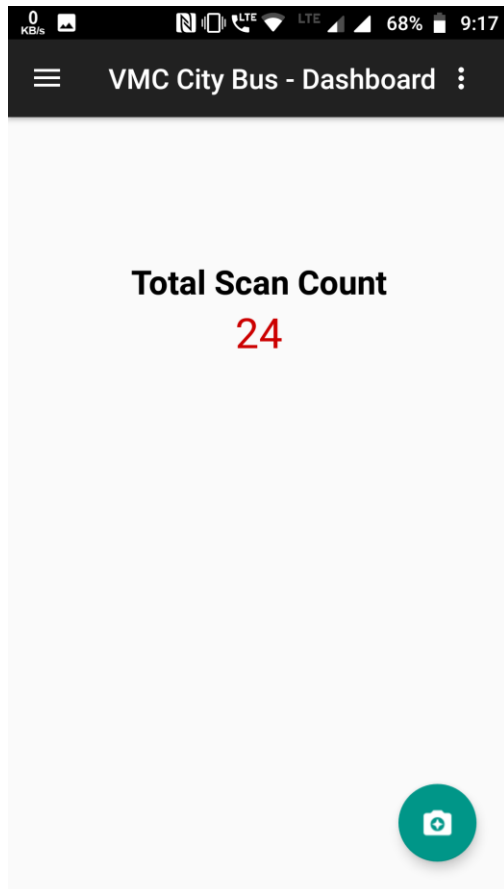


2. Dashboard Menu



CASHLESS CITY TRANSPORTATION SYSTEM

3. Dashboard



4. Scanning Activity

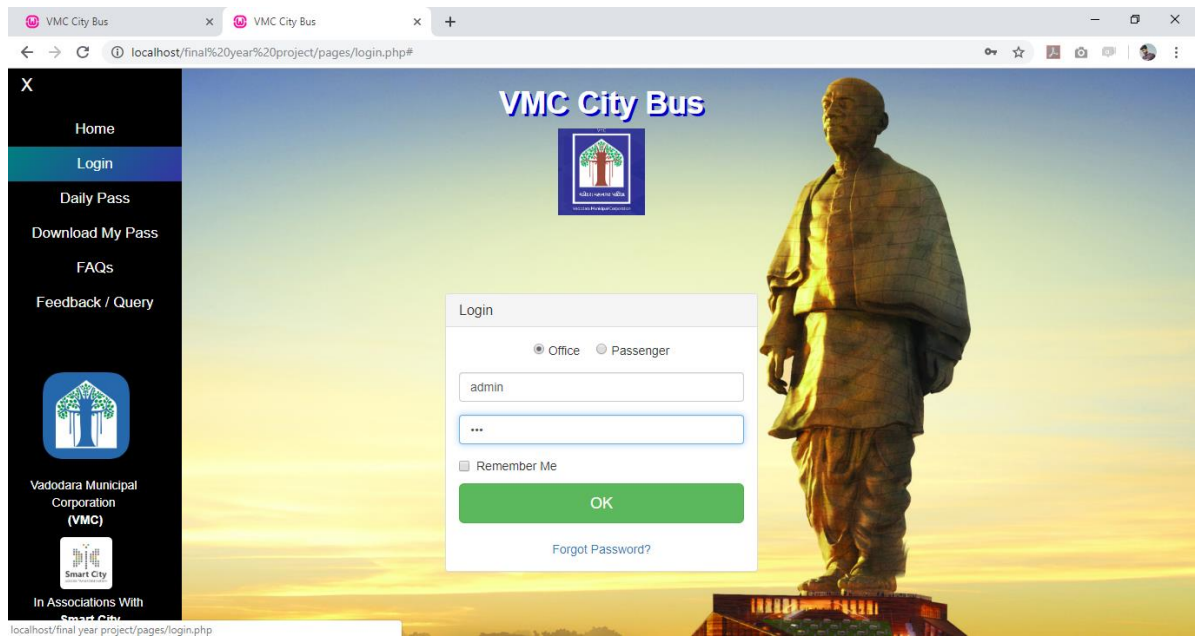


CASHLESS CITY TRANSPORTATION SYSTEM

3.4 Results

1. Login Page (Web-App)

↳ Design (login.php)



2. Camera Action (Android App)

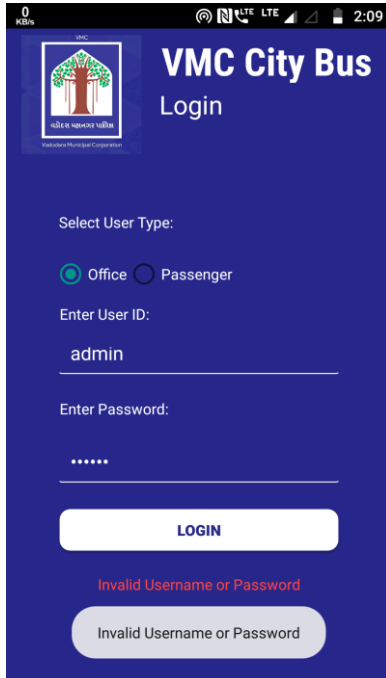
↳ Design (Camera Action Activity)



CASHLESS CITY TRANSPORTATION SYSTEM

3.5 Testing and Validation

1. Login Validation



0 KB/s

VMC City Bus
Login

Select User Type:

☒ Office ☐ Passenger

Enter User ID:

admin

Enter Password:

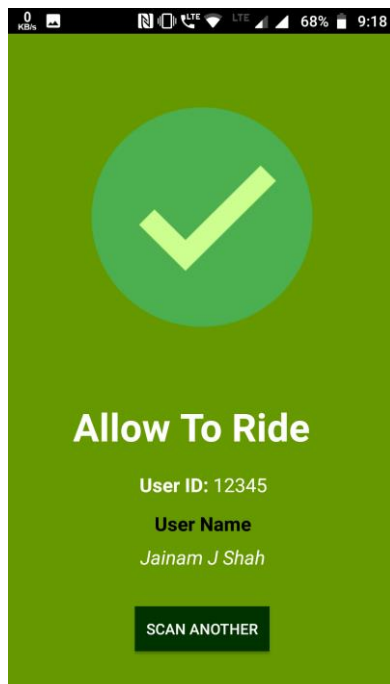
LOGIN

Invalid Username or Password

Invalid Username or Password

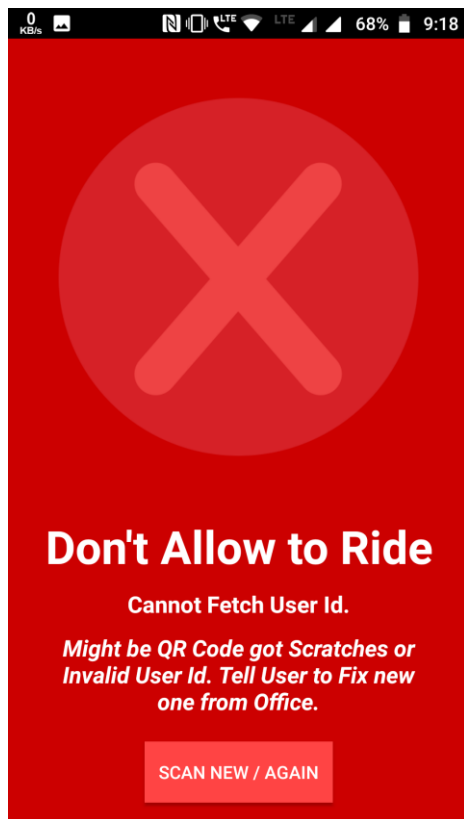
2. Scanning Validation

- Success

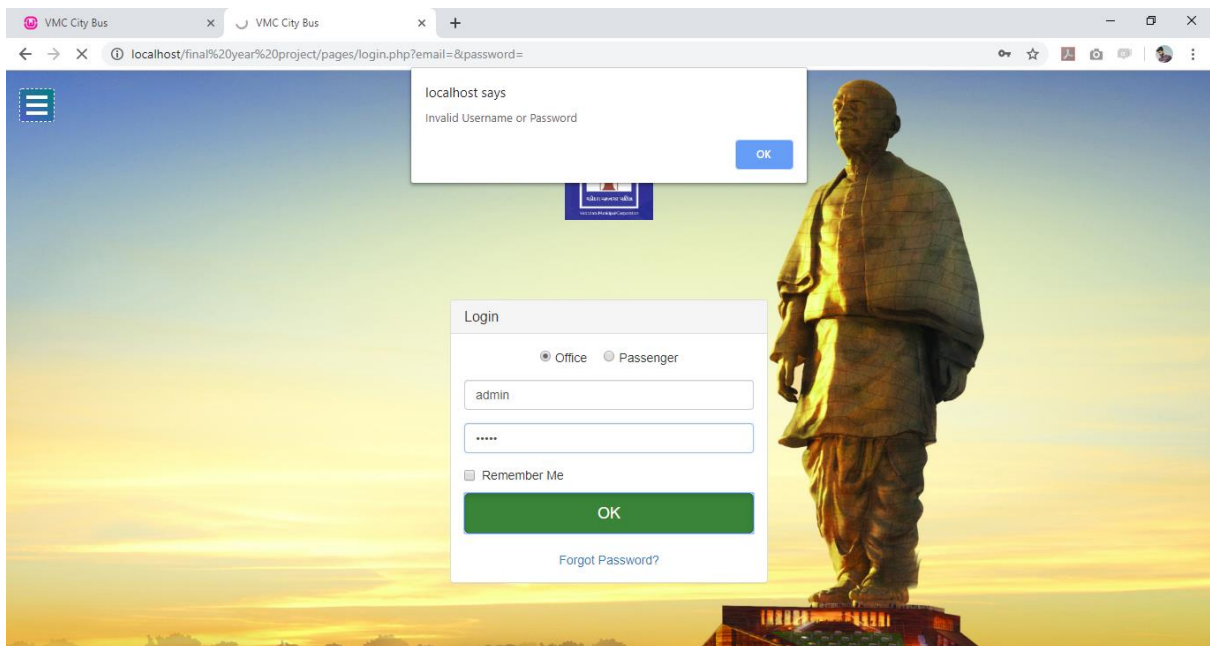


CASHLESS CITY TRANSPORTATION SYSTEM

- **Failure**



3. Web App Login Validation



CASHLESS CITY TRANSPORTATION SYSTEM

4. Renewal Validation

VMC City Bus System

User Registration

Renewal

Get Details

VMC

વડોદરા મહાનગર પાલિકા

Vadodara Municipal Corporation

Renewal

25

Search Reset

Search Result

No Result(s) Found

Status: Ready to Renew on 12/12/2018

Edit & Renew Renew

5. Field Validation

VMC City Bus Smart City

Daily Pass

Full Name

Mobile N

Email

dd-mm-yyyy

Pay Now

Total Price : 50 Rs/-

Please fill out this field.

CASHLESS CITY TRANSPORTATION SYSTEM

6. Field Validation



VMC City Bus
Smart City

Daily Pass



Total Price : 50 Rs/-

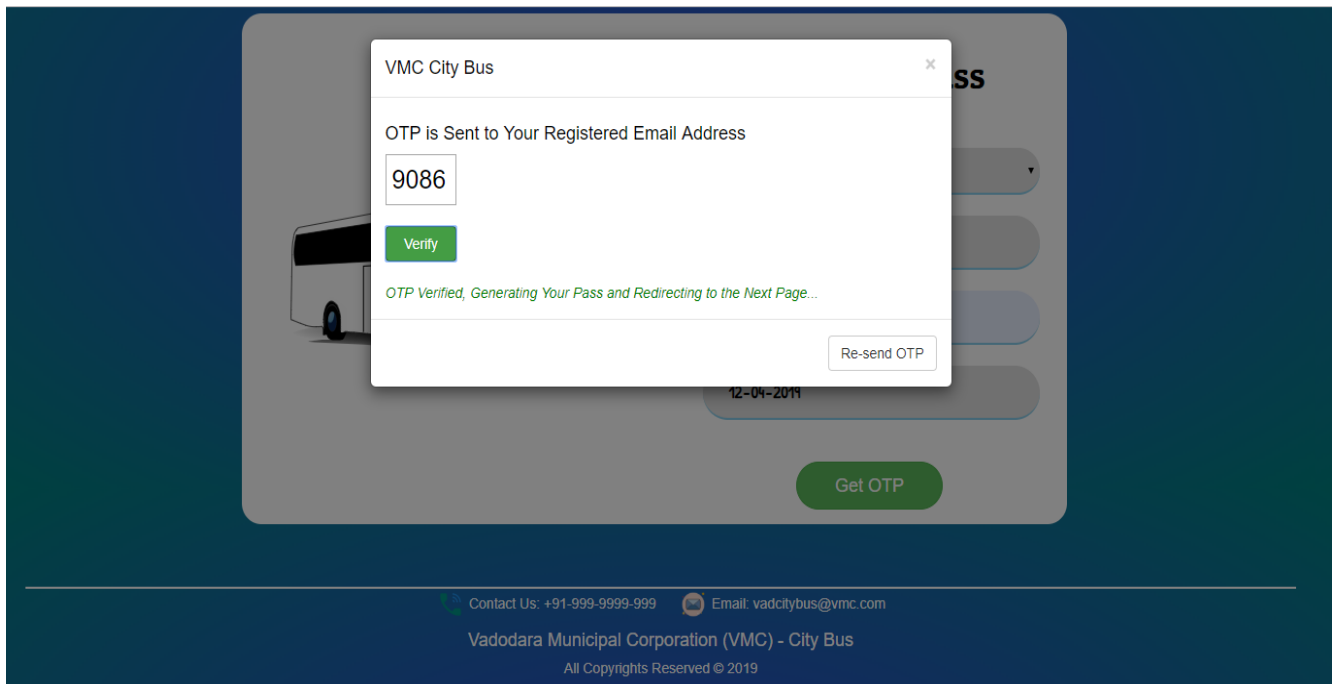
Pay Now

Field Validation:

- Name: Jainam Shah
- Phone Number: 08490808766
- Email Address: jainamshh28.js

Error Message: Please include an '@' in the email address. 'jainamshh28.js' is missing an '@'.

7. OTP Validation



VMC City Bus

OTP is Sent to Your Registered Email Address

9086

Verify

OTP Verified, Generating Your Pass and Redirecting to the Next Page...

Re-send OTP

Background Form:

- Name: Jainam Shah
- Phone Number: 08490808766
- Email Address: jainamshh28.js
- Total Price : 50 Rs/-
- Get OTP**

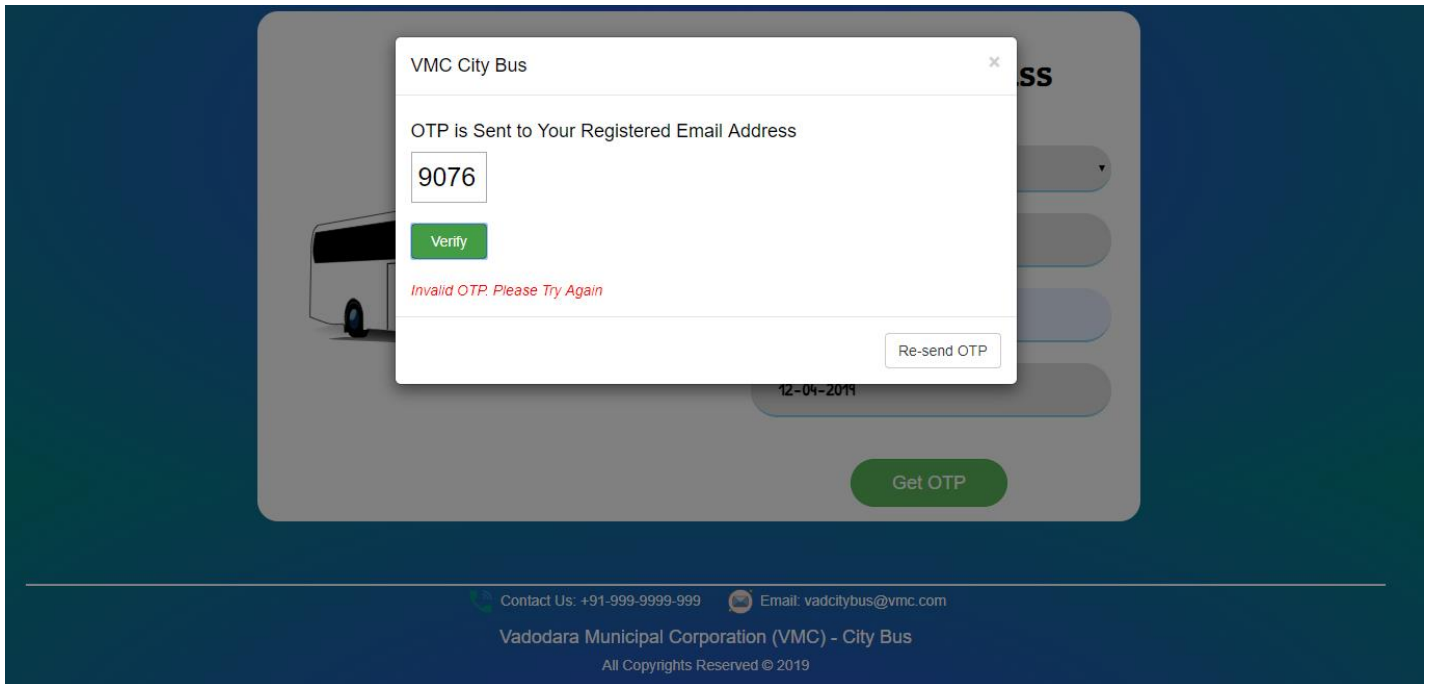
Contact Us: +91-999-9999-999 | Email: vadcitibus@vmc.com

Vadodara Municipal Corporation (VMC) - City Bus

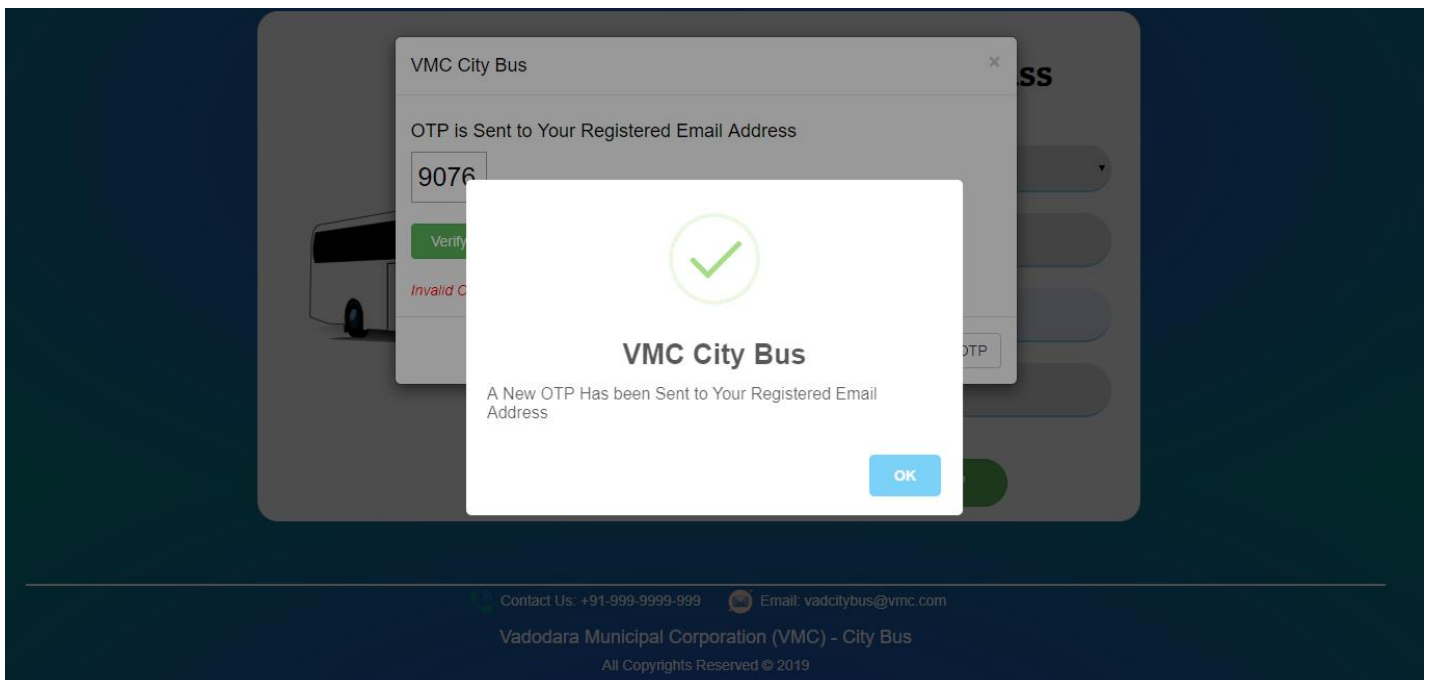
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CASHLESS CITY TRANSPORTATION SYSTEM

Invalid OTP



Resend OTP



CASHLESS CITY TRANSPORTATION SYSTEM

4. SUMMARY

4.1 Advantages of the System

4.2 Unique Features

4.3 Scope of further Work

CASHLESS CITY TRANSPORTATION SYSTEM

4.1 Advantages of the System

- You don't need a cash to travel, if you have this card subscription.
- Valid authorized card as we are linking Aadhar card.
- No one can copy this card as it is smart card having a "QR".
- Travel history can be tracked for every citizens.
- Various kind of discounts such as senior citizen's discounts, student discounts, children discounts. So it attracts citizens to get card and aware more people towards cash-less travelling.
- Pre-booking option so no need to worry about cash on-board.
- No problem of having change of 1, 2 or 5 Rs.
- It is a new digitalized revolutionary technology for Vadodara transportation system and can inspire other cities towards cash-less transportation system.

4.2 Unique Features

- Online Transaction
- QR Based Card Generation
- Android QR Scanning
- Travel History

4.3 Scope of further Work

If this Project achieves success in Future then we can improve and following can be the future scopes of our project:

- We can make a single common card among all transportations such as bus, train, metro etc. and expands and provide for another cities in Gujarat and India.
- We can make a AI that automatically asks you for the feedbacks, complaints and rating for ride under particular driver & conductor.
- We can develop for female riders that automatically sends an SMS to their relatives while riding in particular bus with information of Bus No, Driver name, conductor name and contact details.

CASHLESS CITY TRANSPORTATION SYSTEM

5. REFERENCES

References

Appendix

CASHLESS CITY TRANSPORTATION SYSTEM

References:

<https://stackoverflow.com/>

<https://developer.android.com/>

<https://www.w3schools.com/php/>

<https://www.w3schools.com/js/default.asp>

<https://getbootstrap.com/>