VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAVI, KARNATAKA -590 018

A Minor Project Report on

"CREDIT CARD APPLICATION MANAGEMENT SYSTEM"

Submitted in partial fulfillment of Bachelor of Engineering in Computer Science & Engineering during the academic year 2022-23.

By

Priyanka kumari singh **4MN20CS032**

Rahul Raj H **4MN20CS036**

Under the Guidance of

Prof. Hemanth C

Assistant Professor

Dept. of CS&E

MIT Thandavapura

2022-23

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

MAHARAJA INSTITUTE OF TECHNOLOGY THANDAVAPURA

NH 766, NANJANGUD TALUK, MYSURU – 571302

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

MAHARAJA INSTITUTE OF TECHNOLOGY THANDAVAPURA

CERTIFICATE

*Certified that the minor project work entitled "**CREDIT CARD MANAGEMENT SYSTEM**" is a bonafide work carried out by [**PRIYANKA KUMARI SINGH**] (4MN20CS032) & [**RAHUL RAJ H**] (4MN20CS036) for the course **DBMS Laboratory with Mini-Project** with course code **18CSL58** of Fifth Semester in Computer Science & Engineering under Visvesvaraya Technological University,Belagavi during academic year **2022-23**.*

It is certified that all corrections/suggestions indicated for Internal Assignment have been incorporated in the report.The report has been approved as it satisfies the course requirements.

_____	_____
Signature of Lab Staff In-Charge	Signature of the HoD
Prof. Hemanth C	**Dr. Ranjit K N**
Assistant Professor	Associate Professor & Head
Dept. of CS&E	Dept. of CS&E
MIT Thandavapura	MIT Thandavapura

External viva

Name of the Examiners	**Signature with date**

1)…….

2)…….

ACKNOWLEDGEMENT

It is the time to acknowledge all those who have extended their guidance, inspiration and their whole hearted co-operation all along our project work.

We are grateful to **Dr. Y T Krishne Gowda**, Principal, MIT Thandavapura, **Dr. H K Chethan,** Professor and Mentor, CS&E, MITThandavapura and also **Dr. Ranjit K N**, Associate Professor and Head, CS&E, MIT Thandavapura for having provided us academic environment which nurtured our practical skills contributing to the success of our project.

We would like to sincerely thank our project guide **Prof. Hemanth C**, Assistant Professor, Dept. of CS&E, MIT Thandavapura for providing relevant information, valuable guidance and encouragement to complete this project.

We wish to place a deep sense of gratitude to all Teaching and Non-Teaching staffs of Computer Science and Engineering Department for whole-hearted guidance and constant support without which this endeavor would not have been possible.

Our gratitude will not be complete without thanking our parents and also our friends, who have been a constant source of support and aspirations.

Priyanka Kumari Singh **Signature**

Rahul Raj H **Signature**

ABSTRACT

In this project, Credit Card Application Management System contains data and information of credit card holder who apply for credit card online. The main purpose of CCAMS is to systematically record, store and update the details of admin/sub-admin and also manage the credit card application. This projects helps to those people who apply credit card online without wasting a time and also check the application status by their name/mobile number/application number.

CONTENTS

LIST OF FIGURES

CHAPTER – 1

INTRODUCTION

1.1 Project Description

Credit Card Application Management System is a web-based technology the main purpose of this project is to provide all online credit card application management. User can apply credit card online and check the application status by using his/her name/mobile number/application number. In Credit Card Application Management System we use PHP and MySQL database. This is the project which keeps records of admin/subadmin and also manage the credit card application. Credit Card Application Management System has three module i.e. Admin, Sub-Admins and users.

1. Admin Module

- Dashboard: In this section admin can briefly view total number of Subadmins and total number of new application, accepted application and rejected application.
- Sub-Admins: In this section, admin can manage the Sub-Admins (add/update,Delete).
- CC Application: In this section, admin can manage the credit card application and change the status of application according to current scenario.
- Report: In this section, two reports are available.
  - B/w Dates Report: Admin can view number of credit card application received in the particular periods.
  - Search Report: admin can search Credit Card Application by using Name/Email/Mobile Number/Application Number.
- Pages: In this Section, Admin can manage the content of about us and contact us page.
- Account Settings:
  - Profile: In this section admin can update his/her profile.

- Change Password: In this section admin can change his/her own passwords
- Logout: Through this button admin can logout.

❖ Forgot Password: In this section, admin can reset his/her password by using registered email id and contact number.

2. Sub-Admin Module

Sub-Admin and Admin features are the same except Sub-Admin creation. SubAdmin can't create the Sub-Admins.

3. Users

- User can visit the website.
- User apply for credit card online.
- Users can check the application status by using application number/name/mobile number.

1.2 Objective of the Project

- Profit maximisation from dairy sector.
- To ensure fresh and safe milk to consumers of the state.
- Increase Rural Employment Opportunities through Entrepreneurship.
- Sustainable Development of the sector.
- Strengthening of the organised Dairy farming sector through cooperatives.
- Value addition and improved marketing to provide fair price to the farmers.
- Innovation, Research and Development for cost effective production.
- Technology transfer through effective extension activities.
- Automate the milk collection and pricing system of the Dairy Co-operatives.
- Unify the accounting and management system of the Dairy Co-operatives.

- Creating a network between the Dairy Co-operatives, the Dairy Development Department and other stake holders for efficient and effective management.

- To conduct any and all appropriate activities to accomplish the above objectives and purposes.

.

- To ensure provision of inputs for milk production, processing facilities and dissemination of know how.

- To build and develop village level institutes as cooperative model units to manage the dairy activities.

- To facilitate rural development by providing opportunities for self- employment along with providing opportunity for steady Income at village level.

- Technical guidance and supply of root slips/seeds for Fodder cultivation by the members of the Co-operative Societies.

- Effective supervision/extension services through field executives of the Union.

- Organising exclusive women dairy co-operatives.

- Implementing STEP program through Govt. Of India Project.

- Providing hygienic milk to urban consumers.

1.3 Existing System

- As per the as the present system is concerned, the customer needs to visit the bank for acquiring the details of eligibility criteria.

- If the customer seeks to know the details of getting a loan, he or she is required to wait for the concerned person who is responsible for delivering loan details.

Disadvantage of Existing System

- The customer faces the trouble for seeking just mediocre banking information. He or she sometimes are forced to cancel all their meetings for visiting the bank.

- At present, no such appropriate customer service is established in the bank. Therefore, the customer is required to visit the bank on a regular basis to know the feedback and details of the service.

1.4 Proposed System

- The proposed system is aimed at easing the process which is contemplated as worse by most of the customers.

- The proposed system would be effective in using and availing every detail of the bank easily. The system enables the customer to get the desired service quickly as well as to receive the money as early as possible.

- The proposed system enable the customer to transact money to their own company or their own relative.

  Advantages of Proposed System

  - Customer can apply for credit card and know his eligibility from his own place just by giving his personal details.
  - The system is designed in order to make the existing system more effective. It allows the customer to access cash easily.
  - It is Portable application.
  - Efficient and fast access.
  - The Card Management System could interact with an external Card Transaction System, thereby updating the card-related information maintained by the bank.

CHAPTER – 2

REQUIREMENTS AND ANALYSIS

2.1 Hardware Requirements

The hardware requirements are the requirements of a hardware device. Most hardware only has operating system requirements or compatibility. For example, a printer may be compatible with Windows XP but not compatible with newer versions of Windows like Windows 10, Linux , or the Apple mac os.

If a hardware device is not compatible with your computer, it is up to the manufacturer to release drivers. Unfortunately, many manufacturers only release updated drivers to fix problems with older drivers and often do not release drivers for newer operating systems or alternative operating systems. If a hardware device doesn't have drivers for your operating system, the only solution may be to get a more up-to-date replacement device.

Client Side	
RAM	512 MB
Hard Disk	10GB
Processor	1.0 GHz
Server Side	
RAM	1 GB
Hard Disk	20GB
Processor	2.0GHz

2.2 Software Requirements

The system requirements or software requirements is a listing of
what software programs or hardware devices are required to operate the program or game properly. System requirements are printed on their packaging, as shown in the image of the Windows 7 system requirements, or are found on the Internet.
If your computer does not meet the minimum system requirements, the program you are attempting to install will not run and may not even install.

An attractive and methodical Insurance Policy Management System requires the amalgamation and utilization of modern technologies like the PHP , CSS and MySQL.

- PHP - It is a server-side scripting language designed for web development but also used as a general-purpose programming language. PHP is an acronym for "PHP: Hypertext Preprocessor".
- CSS - This is used for styling purpose. HTML coding is just a structure and CSS is applied to dictate the look and feel. Font size, font color, font style styling of images, page layout, and more are determined by CSS.
- MySQL - It provides us a way to integrate and manage the database for the policy system by using the various commands to handle the queries.
- XAMPP – This is a software used to connect php files and the database on a local server.

Client Side	
Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS
Server Side	
Web Server	APACHE
Server side Language	PHP5.6 or above version
Database Server	MySQL
Web Browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent OS

2.3 Analysis

2.3.1 Use Case Diagram

Actor: A coherent set of roles that users of use cases play when interacting with the use cases.

Use case: A description of sequence of actions, including variants, that a system performs that yields an observable result of value of an actor.

ADMIN:

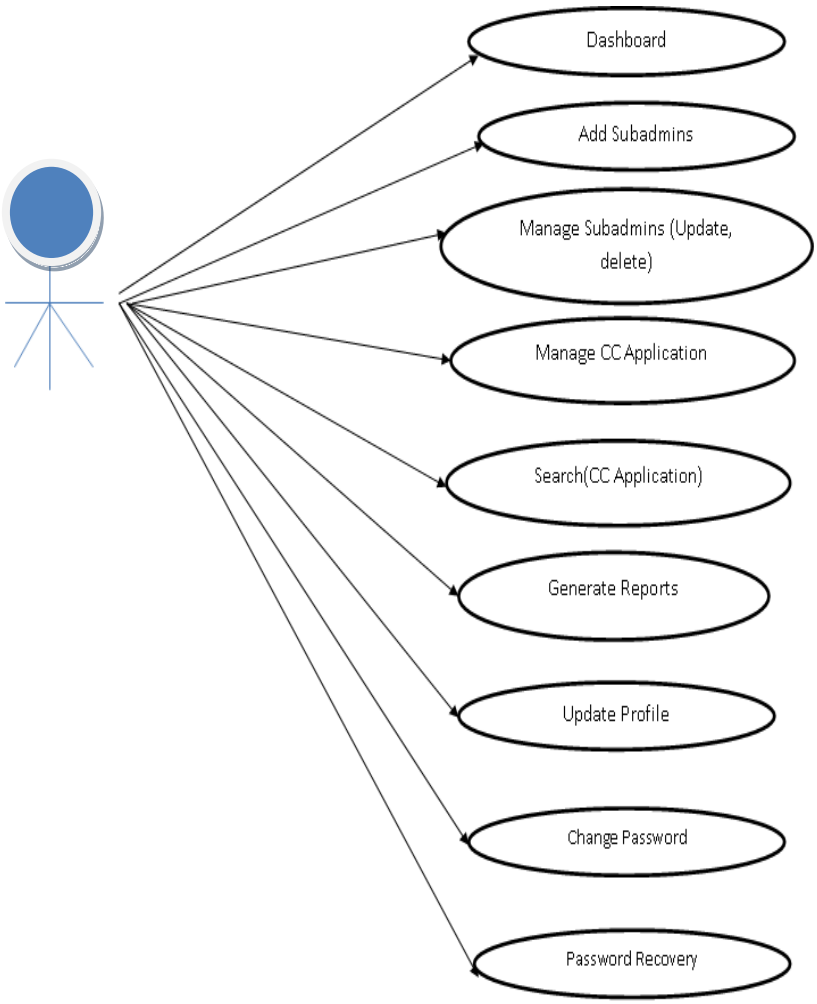

Fig 2.3.1 : Use case diagram of Admin

Use case diagrams model behavior within a system and helps the developers understand of what the user require. The stick man represents what's called an actor. Use case diagram can be useful for getting an overall view of the system and clarifying who can do and more importantly what they can't do.

In this use case diagram of Admin the admin manages the dashboard , he/she can add sub-admin , manage sub-admin(update , delete) , manage the credit card application search(cc application) , generate reports , update profile , he/she can change the password or he/she can recover the password.

SUB-ADMIN:

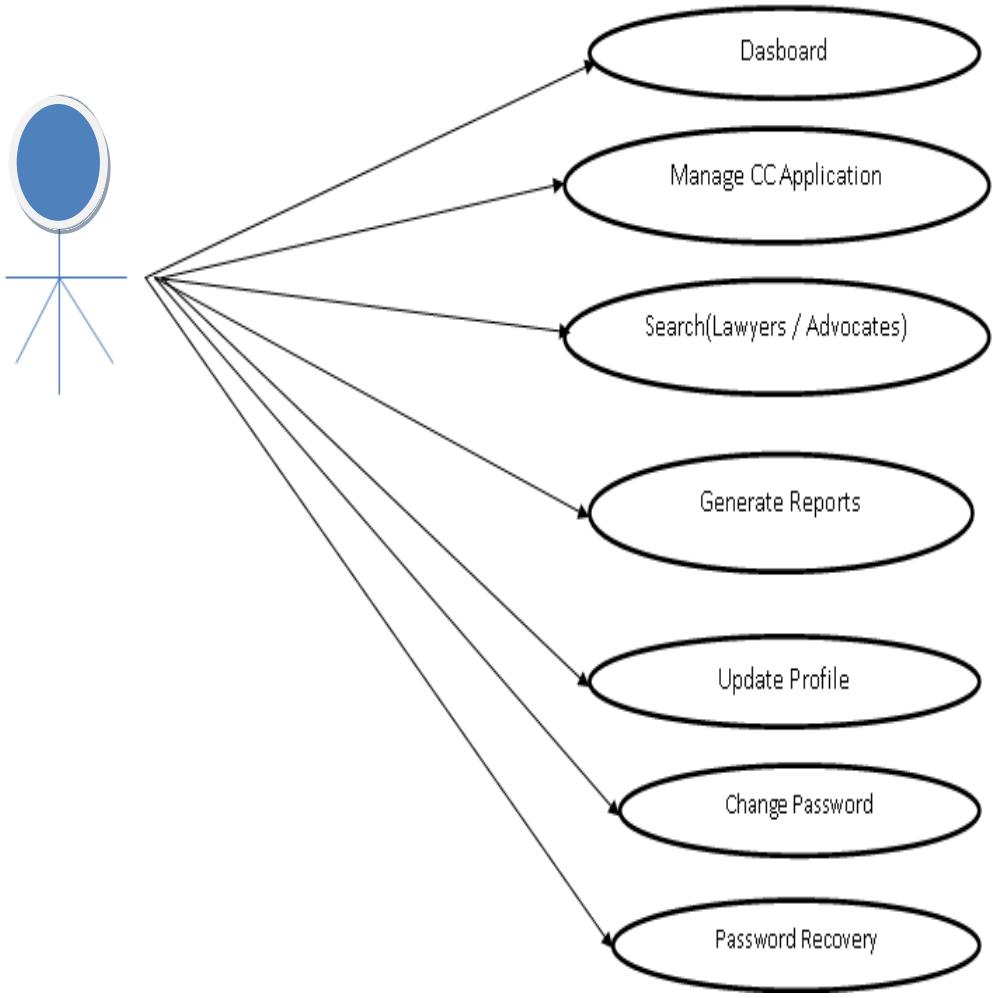

Fig 2.3.1 : Use case diagram of Sub-Admin

UML stands for Unified Modeling Language. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built. The representation of the entities that are to be used in the product being developed need to be designed.

In this use case diagram of sub-admin the sub-admin can manage the dashboard , manage cc application , search(lawyers/advocates) , generate reports , update profile , he/she can change the password , he/she can recover the password.

USER:

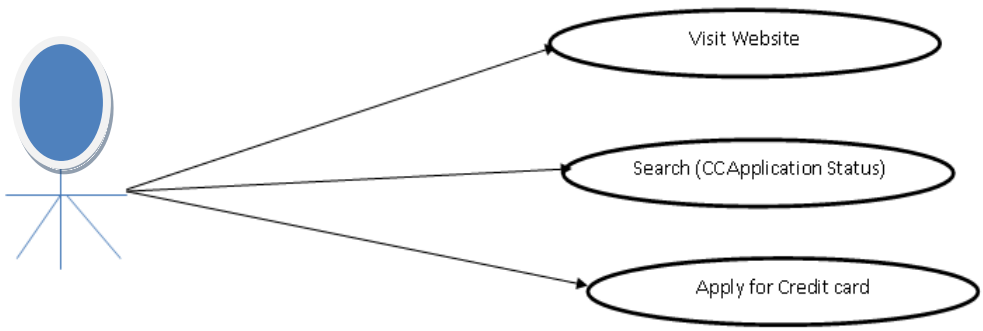

Fig 2.3.1 : Use case diagram of User

A Use case is a description of set of sequence of actions.Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor – Sender, Secondary Actor Receiver.

In this use case diagram of user the user can visit the website , search for the cc application status , he/she can apply for credit card.

2.3.2 DataFlow Diagram

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It can be manual, automated, or a combination of both. It shows how data enters and leaves the system, what changes the information, and where data is stored.

ZERO LEVEL:

- This is the zero level DFD of credit card application system , it is a basic overview of the whole credit card application system or process being analyzed.
- It’s designed to be an at a glance view of application request management and login management system by the admin and sub-admin.
- It should be easily understood by a wide audience or the customers to apply for the credit card application.

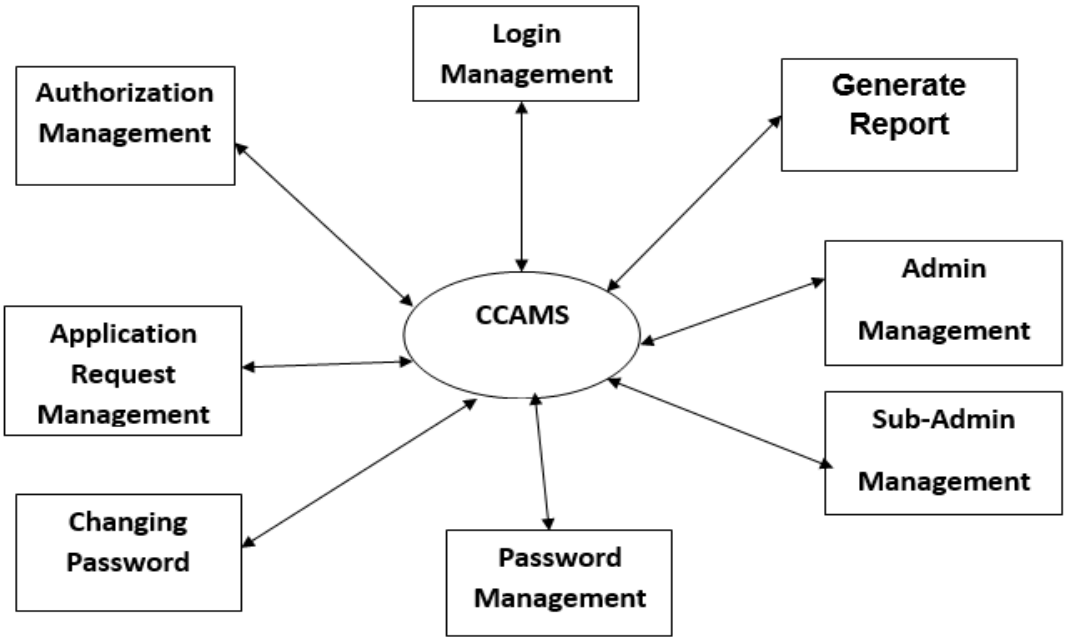

Fig 2.3.2 : Zero level

FIRST LEVEL:

- First level DFD of credit card application system shows how the system is divided into sub-system , which together provide all of the functionality of the credit card application.
- It also identifies internal data stores of login management , admin management and application management.
- DFD level 1 provides a more detailed breakout of pieces of the 1st level DED.

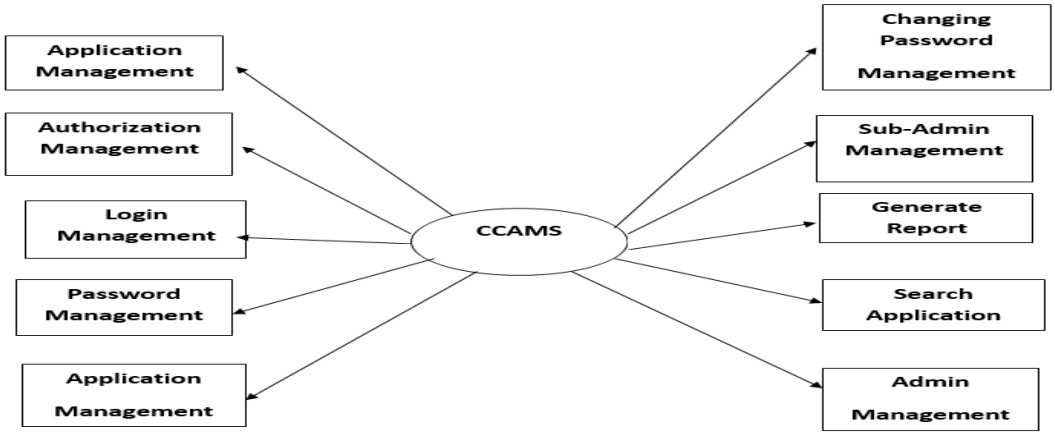

Fig 2.3.2 : First level

CHAPTER – 3

SYSTEM DESIGN

3.1 Entity Relation Diagram

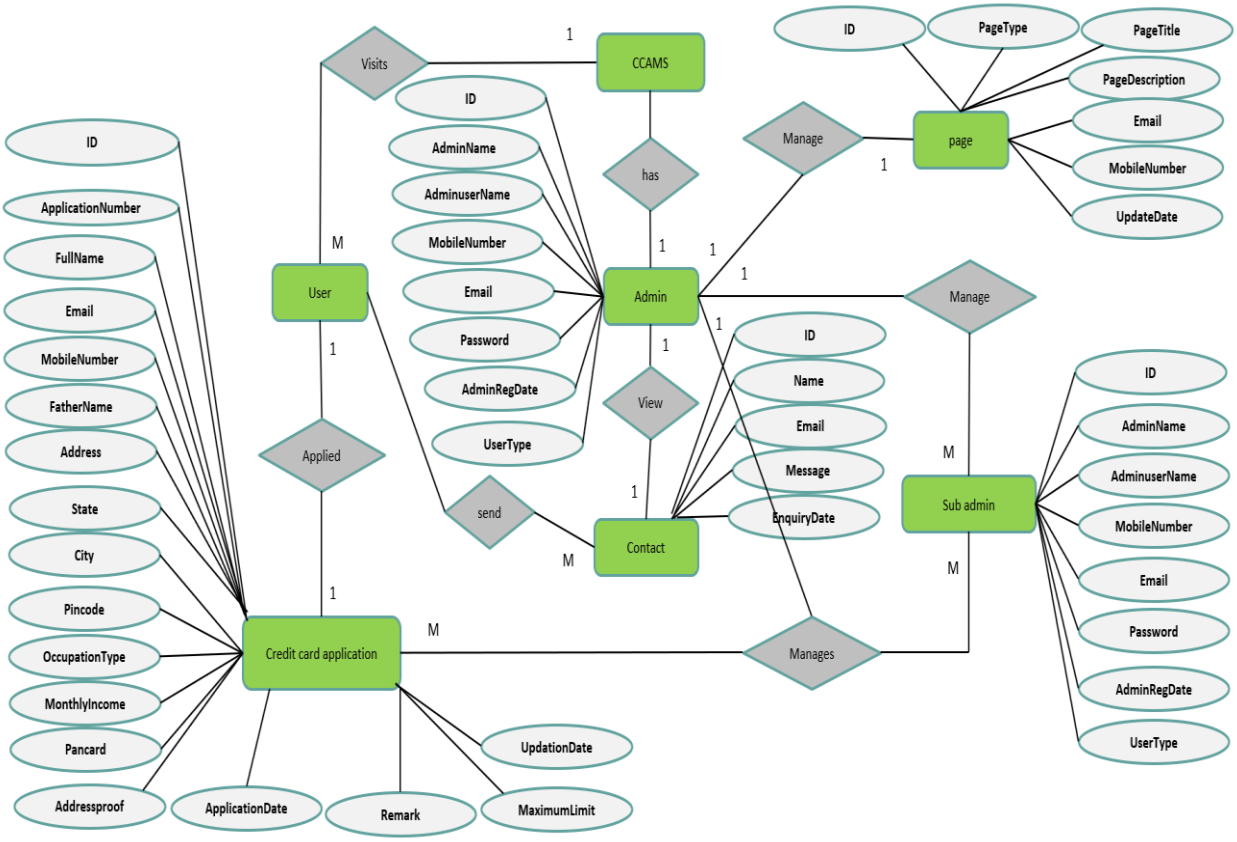

Fig 3.1 : Entity Relation Diagram

A basic component of the model is the Entity Relationship diagram which is used to visually represent data objects , the utility of the ER model is:

- It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.
- It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.
- In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.

The symbols used for the basic ER constructs are:

• Entities are represented by labeled rectangles. The label is the name of the entity. Entity names should be singular nouns.

• Relationships are represented by a solid line connecting two entities. The name of the relationship is written above the line. Relationship names should be verbs

• Attributes, when included, are listed inside the entity rectangle. Attributes which are identifiers are underlined. Attribute names should be singular nouns.

3.2 MYSQL Server

SQL (Structured Query Language) is a domain-specific language used in programming and designed for managing data held in a relational database management system (RDBMS), or for stream processing in a relational data stream management system (RDSMS). In comparison to older read/write APIs like ISAM or VSAM, SQL offers two main advantages: first, it introduced the concept of accessing many records with one single command; and second, it eliminates the need to specify how to reach a record, e.g. with or without an index. Originally based upon relational algebra and tuple relational calculus, SQL consists of a data definition language, data manipulation language, and data control language. The scope of SQL includes data insert, query, update and delete, schema creation and modification, and data access control. Although SQL is often described as, and to a great extent is, a declarative language (4GL), it also includes procedural elements. SQL was initially developed at IBM by Donald D. Chamberlin and Raymond F. Boyce in the early 1970s. This version, initially called SEQUEL (Structured English Query Language), was designed to manipulate and retrieve data stored in IBM's original quasirelational database management system, System R, which a group at IBM San Jose Research Laboratory had developed during the 1970s.

The SQL language is subdivided into several language elements, including:

• Clauses, which are constituent components of statements and queries. (In some cases, these are optional.)

• Expressions, which can produce either scalar values, or tables consisting of columns and rows of data

• Predicates, which specify conditions that can be evaluated to SQL three-valued logic (3VL)(true/false/unknown) or Boolean truth values and are

used to limit the effects of statements and queries, or to change program flow.

• Queries, which retrieve the data based on specific criteria. This is an important element of SQL.

• Statements, which ma diagnostics. y have a persistent effect on schemata and data, or may control transactions, program flow, connections, sessions.

3.3 Normalization

Normalization is the process of efficiently organizing data in a database. There are two goals of the normalization process: eliminating redundant data (for example, storing the same data in more than one table) and ensuring data dependencies make sense (only storing related data in a table). Both of these are worthy goals as they reduce the amount of space a database consumes and ensure that data is logically stored. There are several benefits for using Normalization in Database.

Benefits:

- Eliminate data redundancy
- Improve performance and Faster update due to a smaller number of columns in one table Index improvement .

There are different types of normalizations form available in the database.

1. First Normal Form (1NF):

First normal form (1NF) sets the very basic rules for an organized database:

- Eliminate duplicative columns from the same table.
- Create separate tables for each group of related data and identify each row with unique column or set of columns (the primary key).
- Remove repetitive groups
- Create Primary Key

Before we proceed let's understand a few things -- A KEY is a value used to identify a record in a table uniquely. A KEY could be a single column or combination of multiple columns Note: Columns in a table that are NOT used to identify a record uniquely are called non-key columns.

Primary Key

2. Second Normal Form(2NF):

Second normal form(2NF) further addresses the concept of removing duplicative data:

- Meet all the requirements of the first Normal form.
- Remove the subset of data that apply to multiple rows of a table and place them in separate tables.

Our project works on 2NF normalization.

CHAPTER – 4
IMPLEMENTATION AND RESULTS

4.1 Algorithms

Index:

1. Display credit card application form and admin login.
2. Link corresponding pages to them.

Admin login:

1. Connect to database.
2. Read new credit card application and manages.
3. Check if applied documents are correct or not.
4. If documents are incorrect then,
5. update application is rejected.
6. Else set maximum credit limit and update application accepted.
7. Add subadmins to manage the applications.

Sub Admin login:

1. Connect to database.
2. Read subadmin name and password using post method.
3. If the entered values are correct then,
4. Redirect to Subadmin operation.
5. Else show error message.

Sub Admin operations:

1. performs same operation as admin,
2. But do not manages subadmins.

View Application :

1. Connect to database.
2. Retrieve the applicants name, email, phone number, password, address and also verify the proof from the corresponding table.
3. Display the details in the form of table.

User :

1. Connect to database
2. Apply for credit card and check status of his application .

4.2 Snapshots

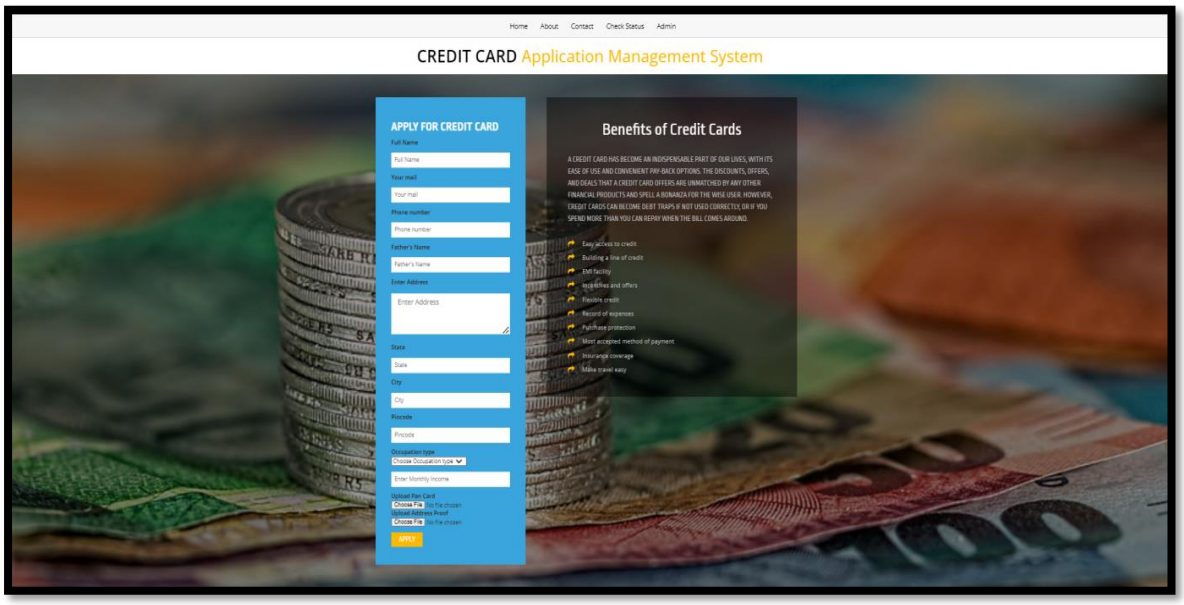

Fig 4.2.1 : Home Page

Fig 4.2.2 : About Page

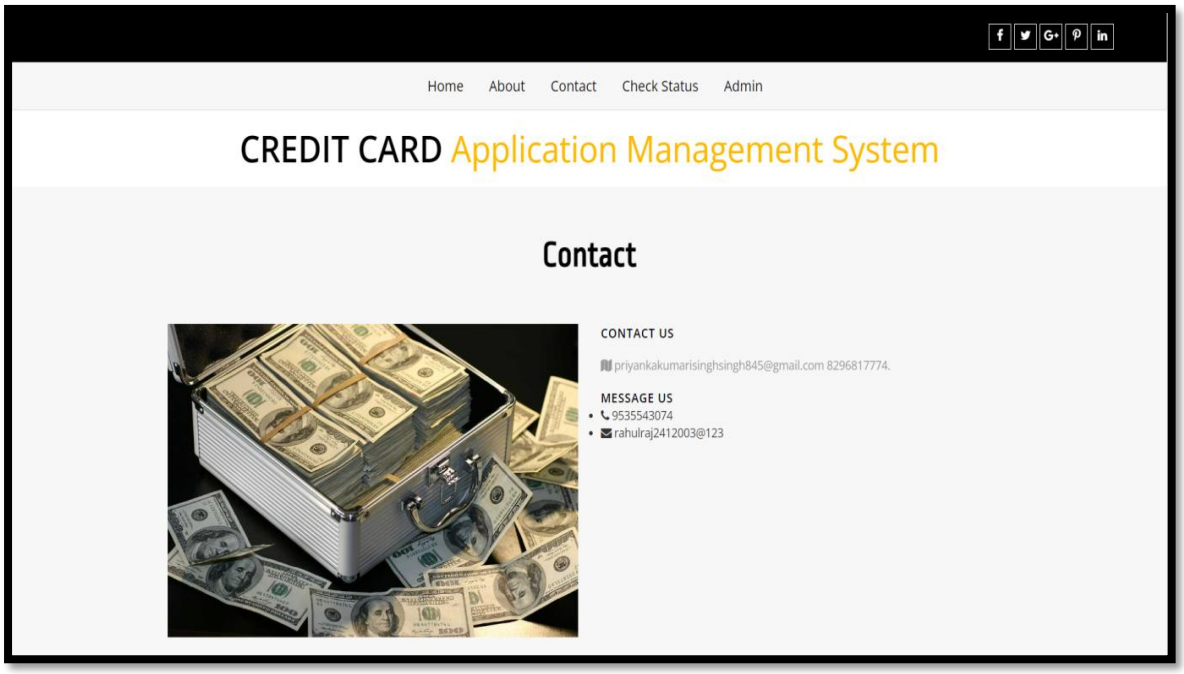

Fig 4.2.3 : Contact Page

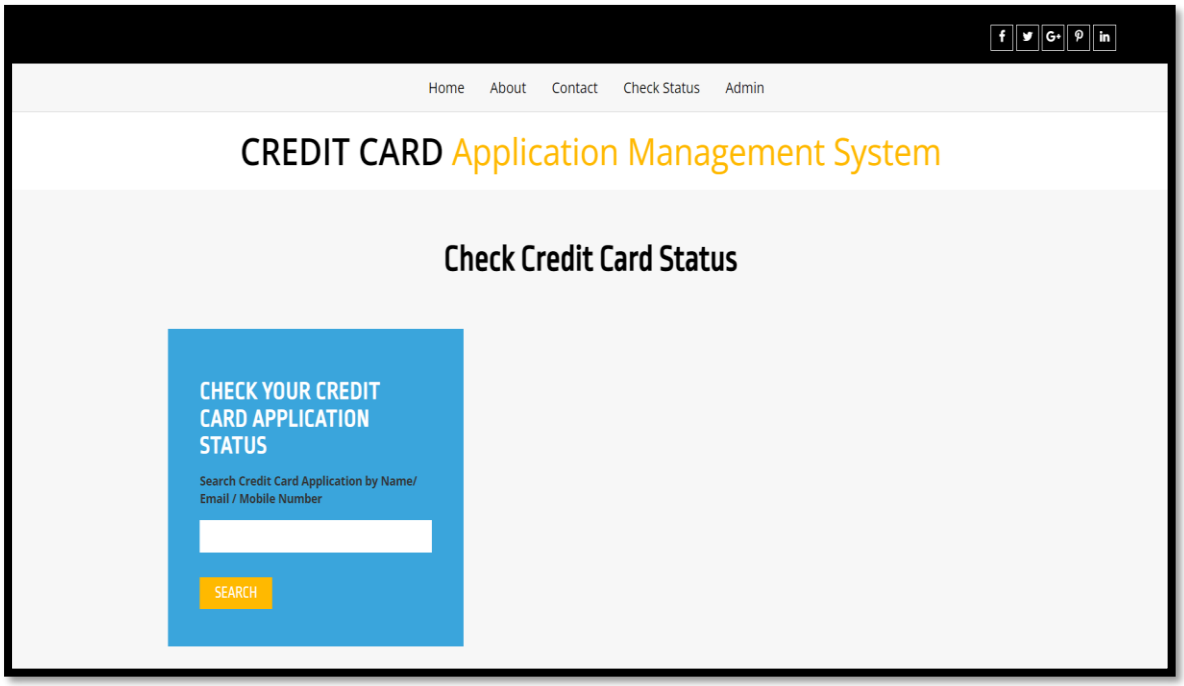

Fig 4.2.4 : Check Status Page

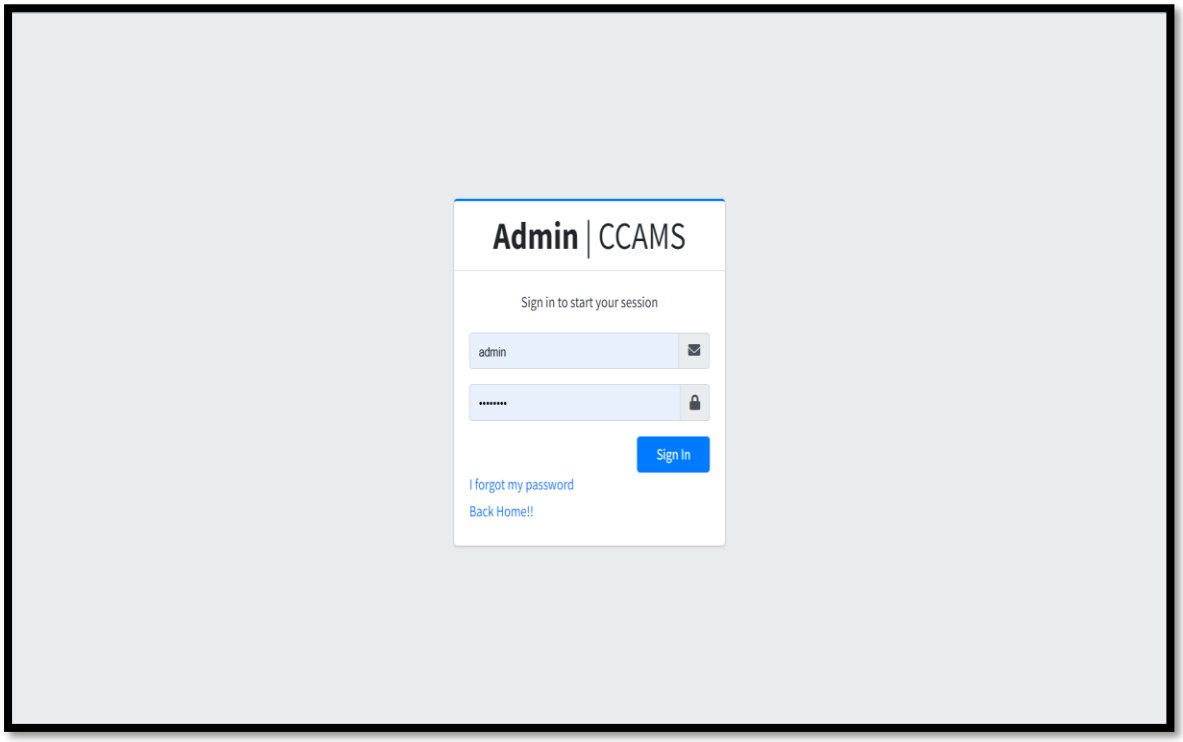

Fig 4.2.5 : Login Page

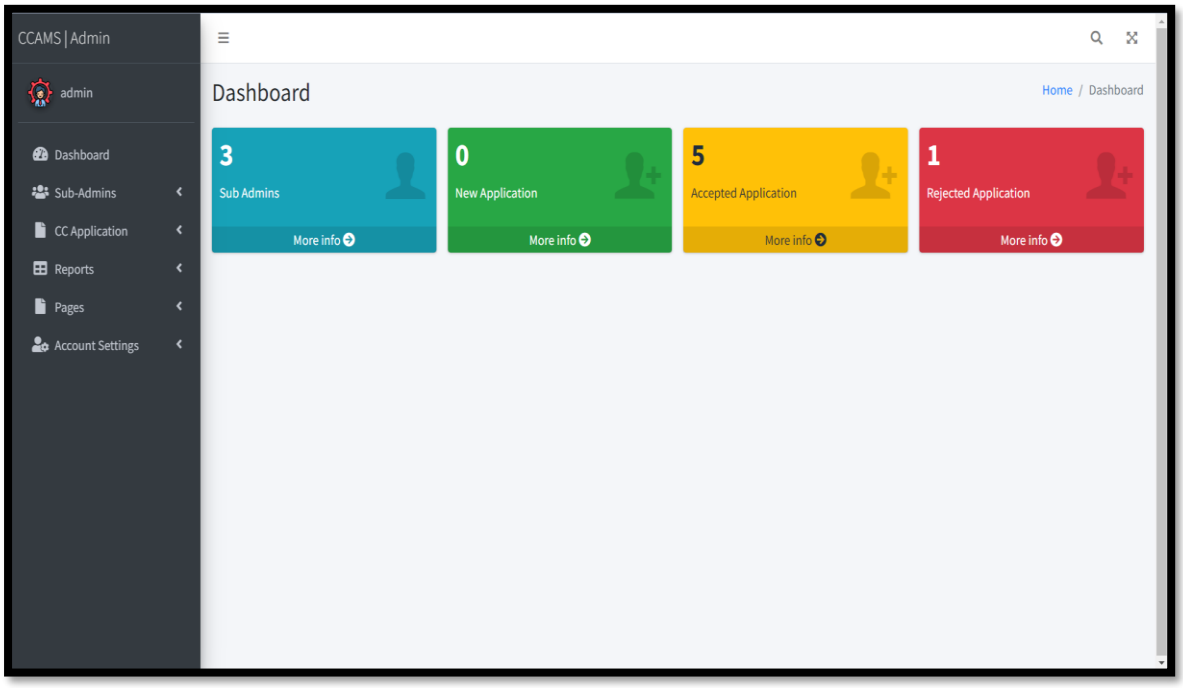

Fig 4.2.6 : Admin Dashboard Page

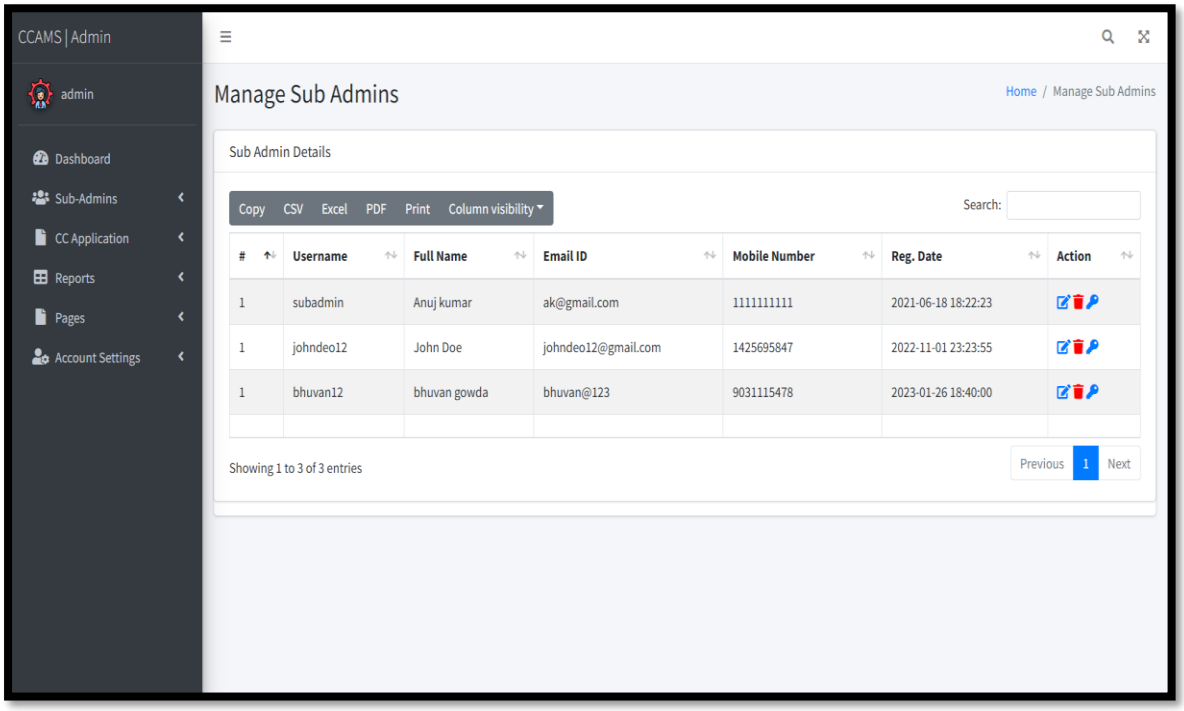

Fig 4.2.7 : Manage Sub Admin Page

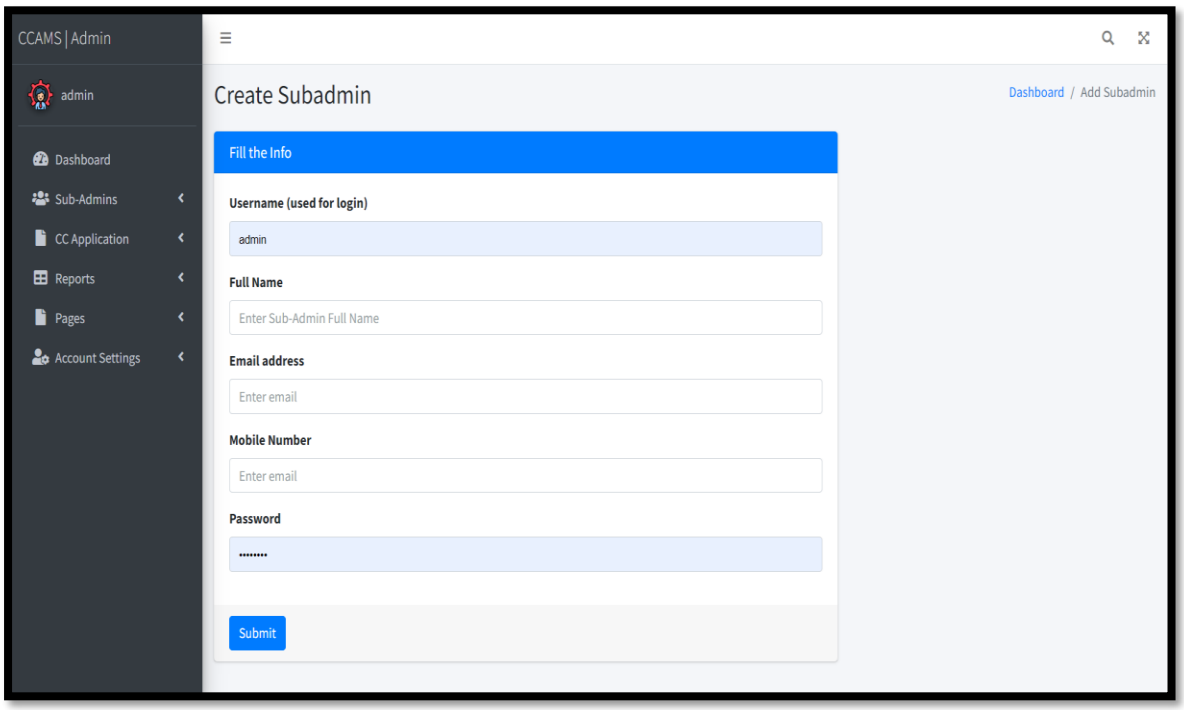

Fig 4.2.8 : Create Sub Admin Page

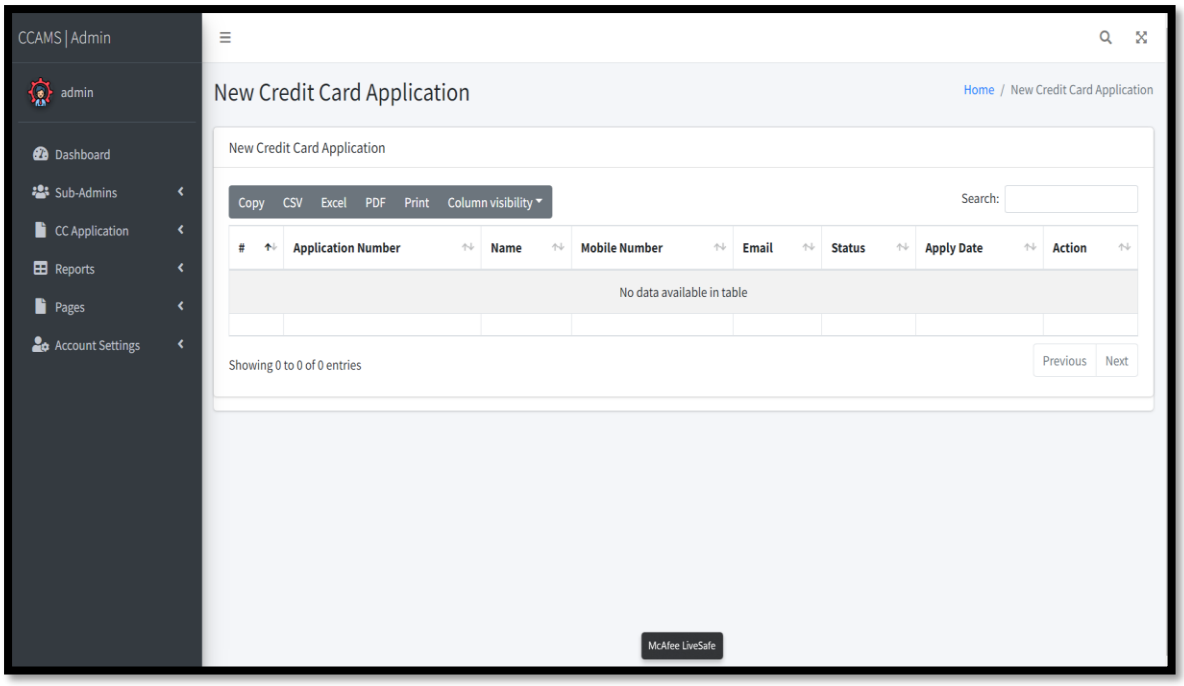

Fig 4.2.9 : New Credit Card Application View Page

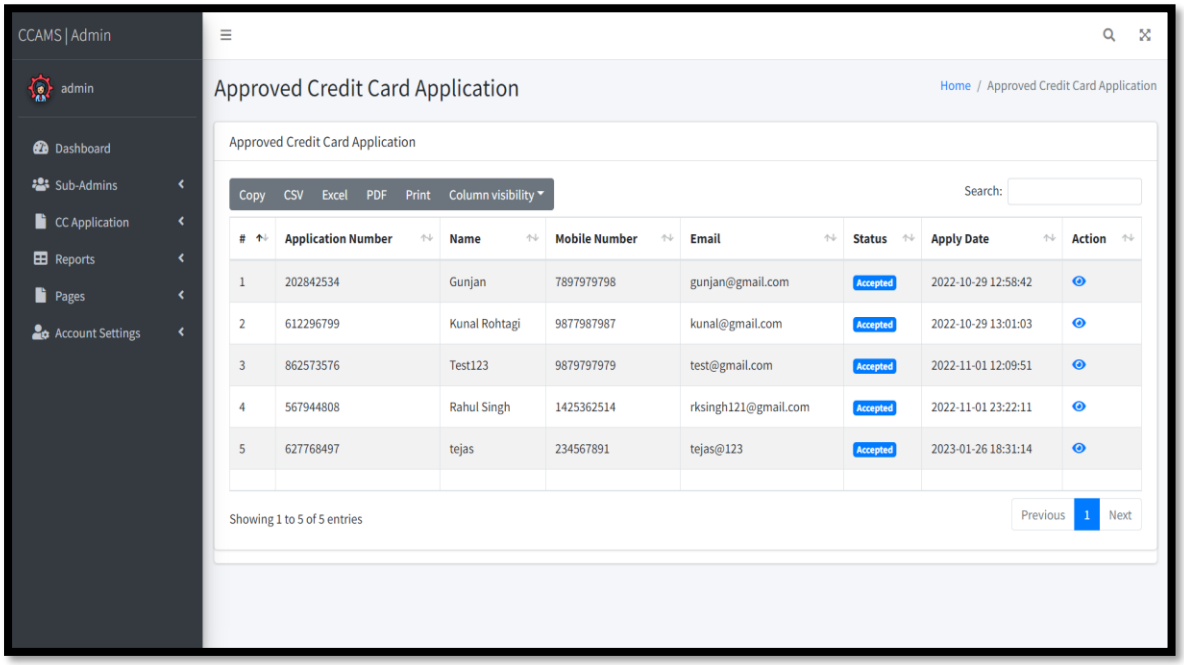

Fig 4.2.10 : Approved Credit Card Application Page

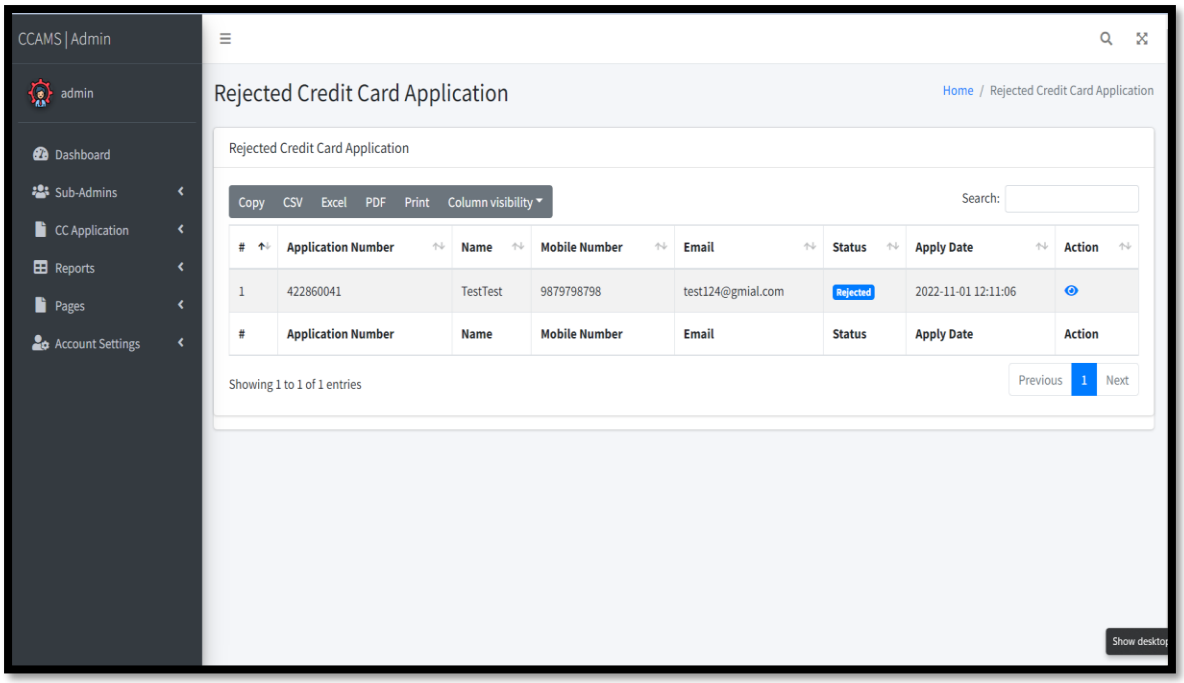

Fig 4.2.11 : Rejected Credit Card Application

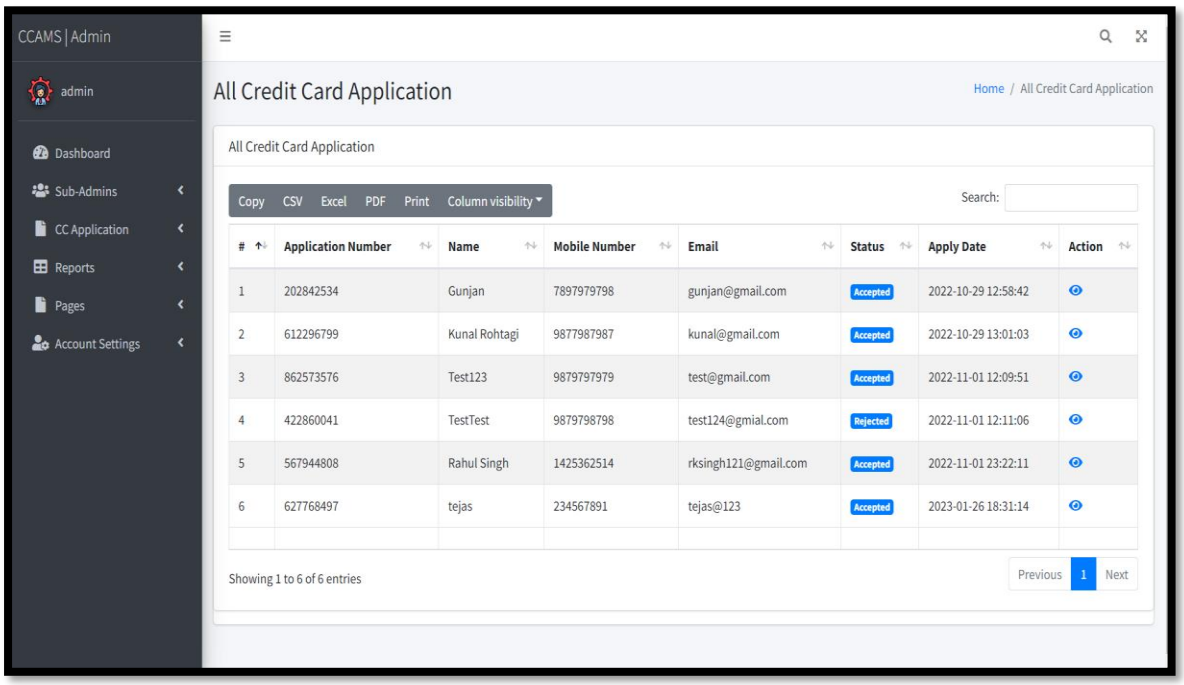

Fig 4.2.12 : All Credit Card Application Page

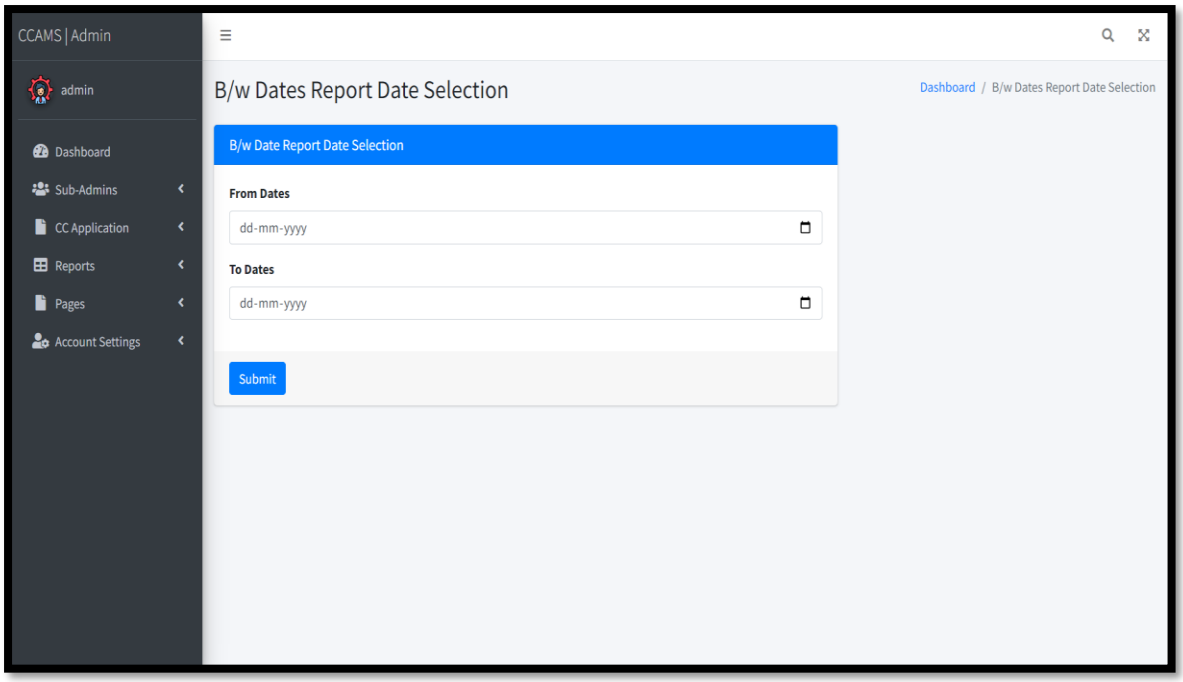

Fig 4.2.13 : Report Date Selection Page

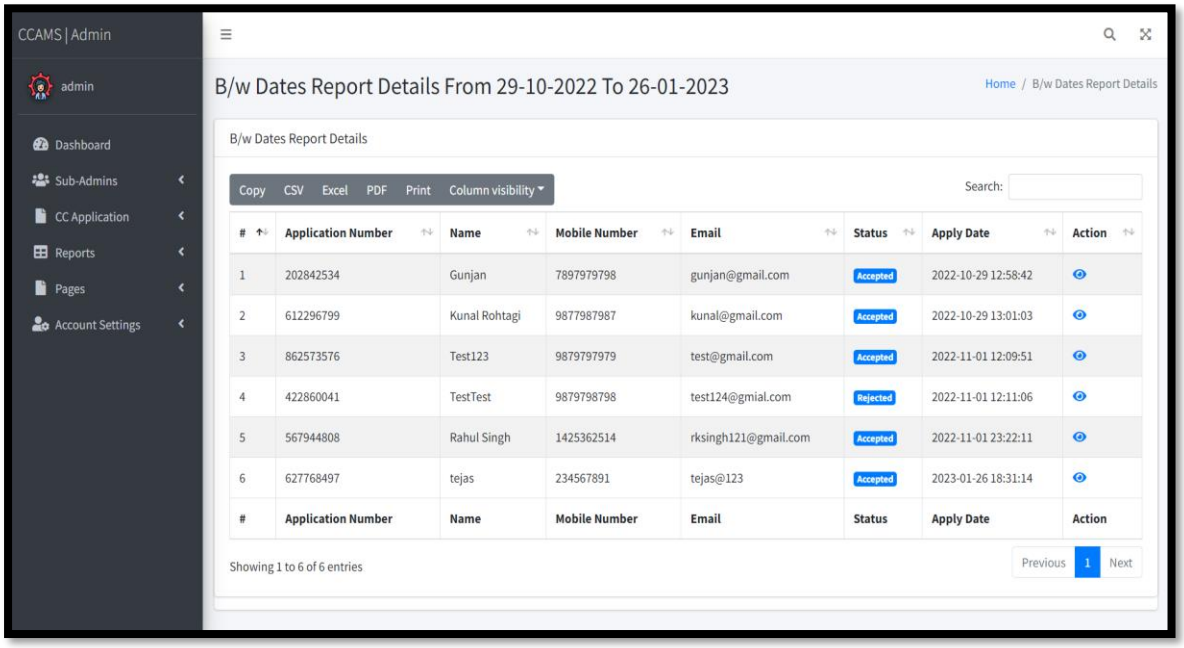

Fig 4.2.14 : Report Details Page

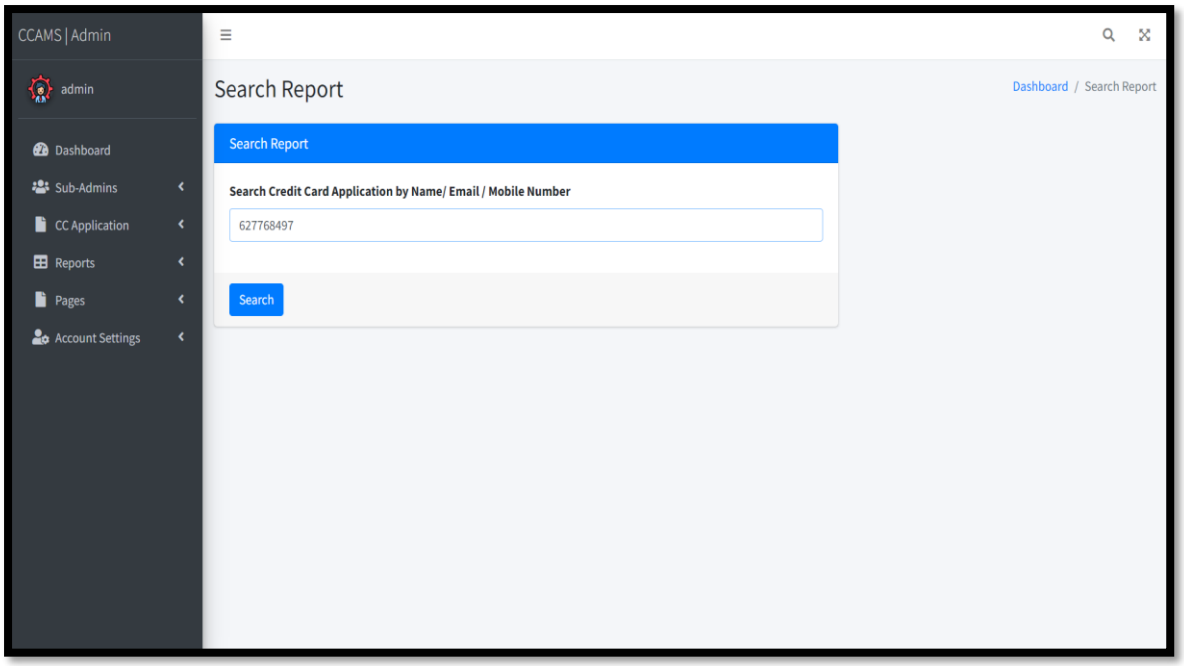

Fig 4.2.15 :Search Report Page

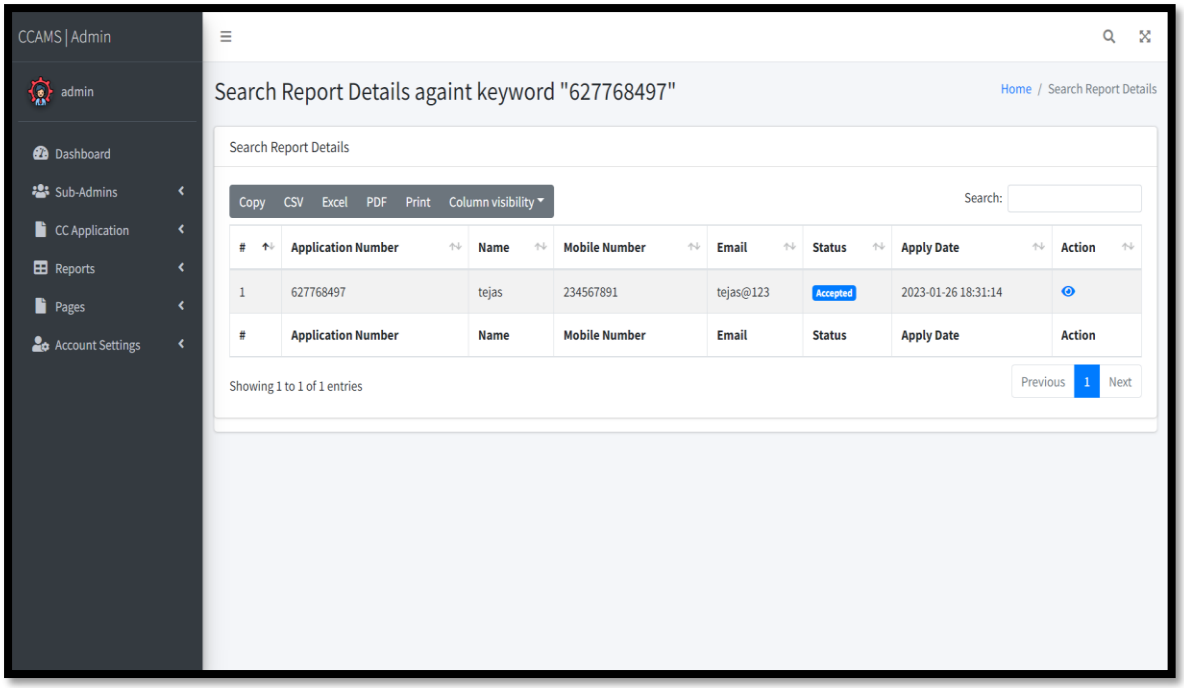

Fig 4.2.16 : Search Report by Application Number

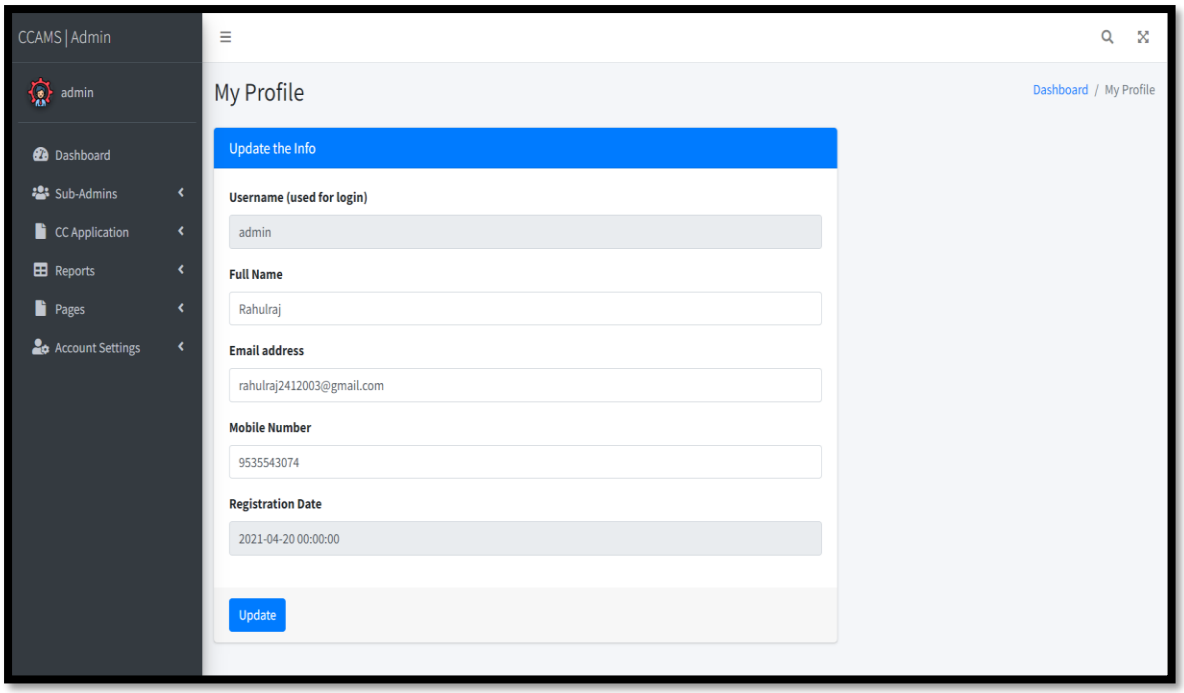

Fig 4.2.17 :Profile Page

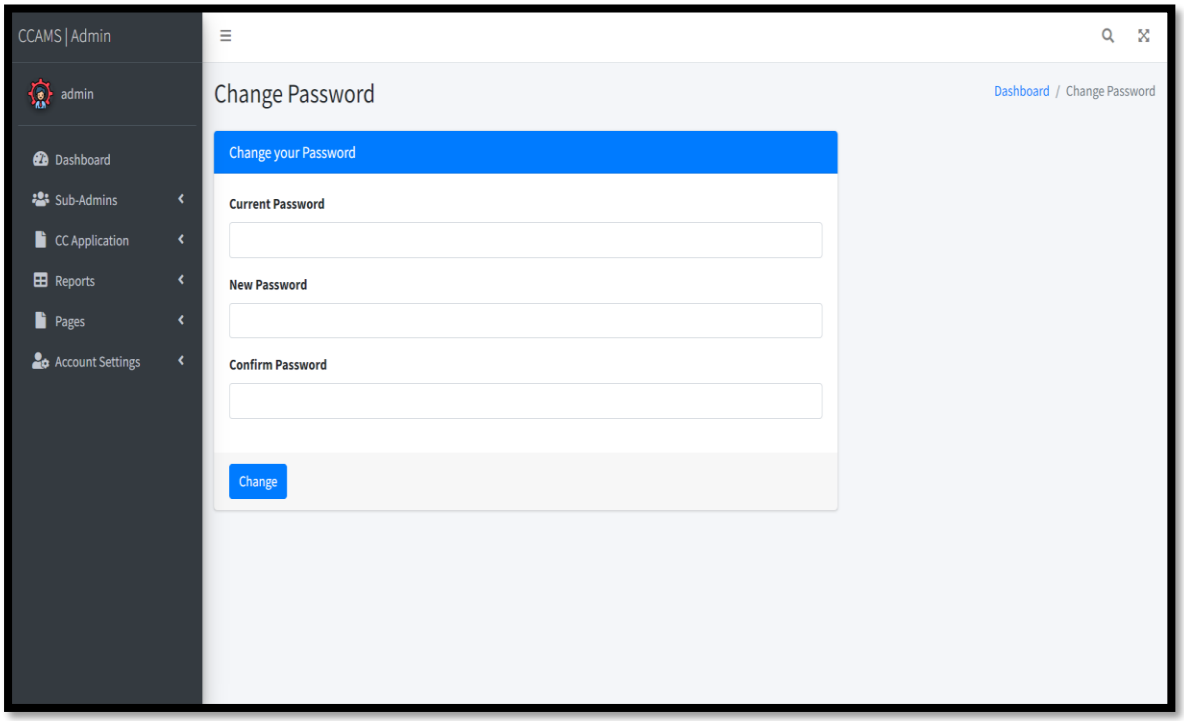

Fig 4.2.18 : Change Password Page

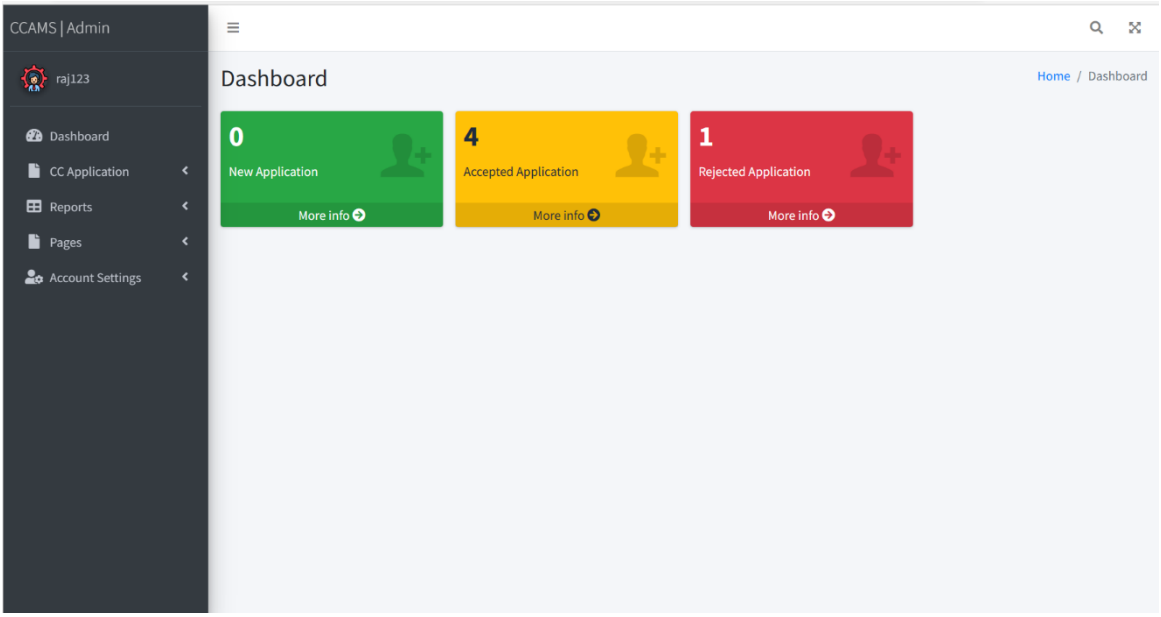

Fig 4.2.19 : Sub Admin Dashboard

CONCLUSION AND FUTURE WORK

This Application provides an online version of Credit Card Application Management System which will benefit the bank firm who want to maintain records of credit card holder and also help to customerto apply credit card online without wasting a time and apply with their convenience.

It makes entire process online and can generate reports.

The Application was designed in such a way that future changes can be done easily. The following conclusions can be deduced from the development of the project.

- Automation of the entire system improves the productivity.
- It provides a friendly graphical user interface which proves to be better when compared to the existing system.
- It gives appropriate access to the authorized users depending on their permissions.
- It effectively overcomes the delay in communications.
- Updating of information becomes so easier.
- System security, data security and reliability are the striking features.

In the future as a implementation we can make details of the applicant more secure and also provide the credit card with more detailed verification of the applicant.

- **Point of Sale:** Through the growth of contactless and mobile point-of-sale innovations, in the future, more businesses will accept credit cards and use Point of Sale terminals. Consequently, customers will see more benefits in maintaining a credit card.

- **Improved Legal Framework:** Apart from traditional push marketing, banks and Fintech organizations can opt for options like credit card management education and e-signatures. Such initiatives will help increase awareness about the credit card system's functioning and help the organization achieve low-cost and low-friction customer onboarding.

REFERENCES

1. Fundamentals of Database Management System by Pearson author Navathe Shamkant and Elmasri Ramez
2. PHP Pandas by Dayleerees.
3. Learn to code HTML and CSS by shay Howe,W3school.
4. Software engineering by Gaurav gupta and Deepika gupta.

1