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Database Management System
Mini-Project Report
On

"COURIER MANAGEMENT SYSTEM"

Submitted in partial fulfillment of requirements for the award of
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IN
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DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the project work titled "**COURIER SYSTEM MANAGEMENT"** is a Bonafide work satisfactorily completed by **Ms.Falak Khan (2BU19CS010) and Ms. Ashwini Toranagatti(2BU19CS009)**, in partial fulfillment for the award of Bachelor of Engineering in Computer Science and Engineering under Visvesvaraya Technological University, Belagavi, for the year 2019-2020. It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the Report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

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Belagavi **Ms.Falak Khan (2BU19CS010)**

Date: **Ms.Ashwini Toranagatti (2BU19CS009)**

ABSTRACT

Courier Service Delivery Management System is useful for small and large scale courier services for improving their services and increasing sales and services by using a web-based portal. Users can book couriers, know about the arrival of packages, closing and opening timings, customer support, and feedback system for completing work in less time.

At present most of the large-scale courier services in developed countries use this technology. Existing Courier Service Companies in developing nations work on the manual management method which is a time-consuming process.

Hence, the aim of this work is to design and implement a Courier Management System capable of enhancing customer deliveries by features such as speed, security, tracking, etc. from specific towns or cities, to regional and national services.

This work will be built and implemented using a three-tier application design approach. The design of the graphical user interface will be designed with Hypertext Mark-UP Language (HTML); My SQL is the database of choice while PHP language will be used to connect the user to the information on the database.

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INTRODUCTION

Courier Management System (CMS) is a **modular full business software framework** for an enterprise that possesses operations in domestic and courier services. The application is reduced as much as possible to avoid errors while entering the data. CMS solution handles the end-to-end process starting from initiating a courier order, driver pickup, and delivery of a courier business.

The system will be used for day-to-day activities like out return, company details, hub rates, booking, and non-delivery and pickup centers. It is not easy to do this process manually because it would become very hectic. The main concern of the courier agency is to deliver the right parcel to its owner. To accomplish it the agency has to maintain the record of the customer details like personal, courier, bill, payment.

Introduction to DBMS:

A database management system (DBMS) refers to the technology for creating and managing databases. DBMS is a software tool to organize (create, retrieve, update and manage) data in a database. Databases (or DBs) have played a very important part in the recent evolution of computers. The first computer programs were developed in the early 1950s, and focused almost completely on coding languages and algorithms.At the time, computers were basically giant calculators, and data (names, phone numbers) was considered the leftovers of processing information. Computers were just starting to become commercially available, and when business people started using them for real-world purposes, this leftover data suddenly became important. IBM had invested heavily in the IMS model and wasn't terribly interested in Codd's ideas. Fortunately, some people who didn't work for IBM "were" interested. In 1973, Michael Stonebreaker and Eugene Wong (both then at UC Berkeley) made the decision to research relational database systems.

The project was called INGRES (*Interactive Graphics and Retrieval System*) and successfully demonstrated a relational model could be efficient and practical. INGRES

worked with a query language known as QUEL, in turn, pressuring IBM to develop SQL in 1974, which was more advanced (SQL became ANSI and OSI standards in 1986 1nd 1987). SQL quickly replaced QUEL as the more functional query language.A Document Store (often called a document-oriented database), manages, stores, and retrieves semi-structured data (also known as document-oriented information). Documents can be described as independent units that improve performance and make it easier to spread data across a number of servers. Document Stores typically come with a powerful query engine and indexing controls that make queries fast and easy. Examples of Document Stores are: Mongo DB, and Amazon Dynamo DB

Document-oriented databases store all information for a given “object” within the database, and each object in storage can be quite different from the others. This makes it easier for mapping objects to the database and makes document storage for web programming

applications very attractive. (An “object” is a set of relationships. An article object could be related to a tag [an object], a category [another object], or a comment [another object].) Formally, a "database" refers to a set of related data and the way it is organized. Access to this data is usually provided by a "database management system" (DBMS) consisting of an integrated set of computer software that allows users to interact with one or more databases and provides access to all of the data contained in the database (although restrictions may exist that limit access to particular data). The DBMS provides various functions that allow entry, storage, and retrieval of large quantities of information and provides ways to manage how that information is organized. Because of the close relationship between them, the term "database" is often used casually to refer to both a database and the DBMS used to manipulate it. Outside the world of professional information technology, the term *database* is often used to refer to any collection of related data (such as a spreadsheet or a card index) as however the size and usage requirements typically necessitate the use of a database management system.

1.1 SQL:

Structured Query Language (SQL) is a database query language used for storing and managing data in Relational DBMS. SQL was the first commercial language introduced for

E.F Codd's **Relational** model of the database. Today almost all RDBMS (MySQL, Oracle, Informix, Sybase, MS Access) use **SQL** as the standard database query language. SQL is used to perform all types of data operations in RDBMS.

1.2SQL Command:

SQL defines the following ways to manipulate data stored in an RDBMS.

DDL: Data Definition Language

This includes changes to the structure of the table like the creation of a table, altering a table, deleting a table, etc. All DDL commands are auto-committed. That means it saves all the changes permanently in the database.

Command	Description
Create	to create new table or database
Alter	for alteration
Truncate	delete data from table
Drop	to drop a table
Rename	to rename a table

DML: Data Manipulation Language:

DML commands are used for manipulating the data stored in the table and not the table itself.DML commands are not auto-committed. It means changes are not permanent to the database, they can be rolled back.

Command	Description

Insert	to insert a new row
Update	to update existing row
Merge	merging two rows or two tables

TCL: Transaction Control Language:

These commands are to keep a check on other commands and their affect on the database. These commands can annul changes made by other commands by rolling the data back to its original state. It can also make any temporary change permanent.

Command	**Description**
Commit	to permanently save
Rollback	to undo change
Save point	to save temporarily

Data Control Language:

Data control language are the commands to grant and take back authority from any database user.

Command	**Description**

Grant	grant permission of right

DQL: Data Query Language:

Data query language is used to fetch data from tables based on conditions that we can easily apply.

Command	Description
Select	retrieve records from one or more table

Chapter 2

METHODOLOGY

Courier management computerization is “the incorporate of appropriate technology to help administrator manage information. Technology is considered appropriate, when it utilizes the most abundant domestic resources and conserves capital and skilled personnel”.The main purpose of this system is to connect all branches to center databases so that everywhere information is the same. This system increases efficiency and also increases customer satisfaction levels. The main aim of this project is to computerize the maintenance of courier management.

2.1 About PHP

PHP: Hypertext Pre-processor is a widely used, general-purpose scripting language that was originally designed for web development to produce dynamic web pages. For this purpose, PHP code is embedded into the HTML source document and interpreted by a web server with a PHP processor module, which generates the web page document.

As a general-purpose programming language, PHP code is processed by an interpreter application in command-line mode performing desired operating system operations and producing program output on its standard output channel. It may also function as a graphical application. PHP is available as a processor for most modern web servers and as a standalone interpreter on most operating systems and computing platforms.

PHP was originally created by Rasmus Lerdorf in 1995 and has been in continuous development ever since. The main implementation of PHP is now produced by the PHP Group and serves as the de facto standard for PHP as there is no formal specification. PHP is free software released under the PHP License.

PHP is a general-purpose scripting language that is especially suited to server-side web development where PHP generally runs on a web server. Any PHP code in a requested file is executed by the PHP runtime, usually to create dynamic web page content. It can also be used for command-line scripting and client-side GUI applications. PHP can be deployed on most

web servers, many operating systems, and platforms, and can be used with many relational database management systems. It is available free of charge, and the PHP Group provides the complete source code for users to build, customize and extend for their own use.

Originally designed to create dynamic web pages, PHP now focuses mainly on server-side scripting, and it is similar to other server-side scripting languages that provide dynamic content from a web server to a client, such as Microsoft's Active Server Pages, SunMicrosystems' Java Server Pages, and mod_perl. PHP has also attracted the development of many frameworks that provide building blocks and a design structure to promote rapid application development (RAD). Some of these include Cake PHP, Symfony, Code Igniter, and Zend Framework, offering features similar to other web application frameworks.

2.2 PHP Syntax:

HTML and PHP code is written on the same page, and to distinguish PHP code from HTML, the PHP code is enclosed within <? PHP ?> Tags.

For example:

```
<html>

<head><title>php basics</title></head>

<body>

<h2>HELLO</h1><?php echo "hello";

?>

</body>

</html>
```

In the above example PHP code is embedded within HTML. In this way, PHP and HTML coding is combined on the same page.

Since PHP is a server-side scripting language, the PHP coding cannot be seen by the end-user through the view source option, due to this feature PHP is very secure.

PHP is a parsed language; therefore PHP environment is necessary at the server for running PHP scripts.

2.3 Working Of PHP:

When a client requests a web page containing PHP code from the server, then the requested PHP pages are parsed under the PHP environment and interaction with the database is made if required.

After server-side processing, the resulting HTML pages are passed to the client and displayed on the browser.

In this way the working of PHP is complete.

2.4 Connecting PHP Application to MySQL Database

Make a connection variable to the database: $con= mysql_ connect ("localhost","server name","password"); Here $con is a connection variable to database. Select database over that connection variable

$db=mysql_ select _db("database name", $con); Prepare a SQL query to execute: $qry= Select * from ABC; Run the SQL query: $result=mysql_query($qry); Iterate over the result: while($row = mysql_fetch_array($result))

```
{
        //some logic
}
```

2.5 Introduction to APACHE SERVER:

In this project Apache server is used to parse and execute PHP pages, before deploying websites on the server, the website should be tested at the developer side to get a feel of how the website will work on actual server. Therefore, the Apache server is like a local server on the developer side, the Apache server should be informed about the environment in which it should work. In our project, the Apache server is configured to work with PHP.

Chapter 3

SYSTEM REQUIREMENTS

3.1 Hardware Requirements:

Ram 128MB or above

Hard disk 150MB or above

3.2 Software Requirements:

Apache server 2.0

Xampp server

PHP version 5.3 or above

MySQL version 5.0 or above

Processor i3 or above.

Latest browser (chrome, firefox, etc)

Operating system (windows)

BRIEF OVERVIEW OF TECHNOLOGY

FRONTEND:

HTML, CSS, JavaScript

HTML: HTML is used to create and save web document. E.g.Notepad/Notepad++

CSS : (Cascading Style Sheets) Create attractive Layout

Bootstrap: responsive design mobile-friendly site.

BACKEND:

PHP, MySQL

PHP: Hypertext Preprocessor (PHP) is a technology that allows software developers to create dynamically generated web pages, in HTML, XML, or other document types, as per client request. PHP is open-source software.

MySQL: MySql is a database, widely used for accessing querying, updating, and managing data in databases.

Chapter 4

ENTITY-RELATIONSHIP DIAGRAM

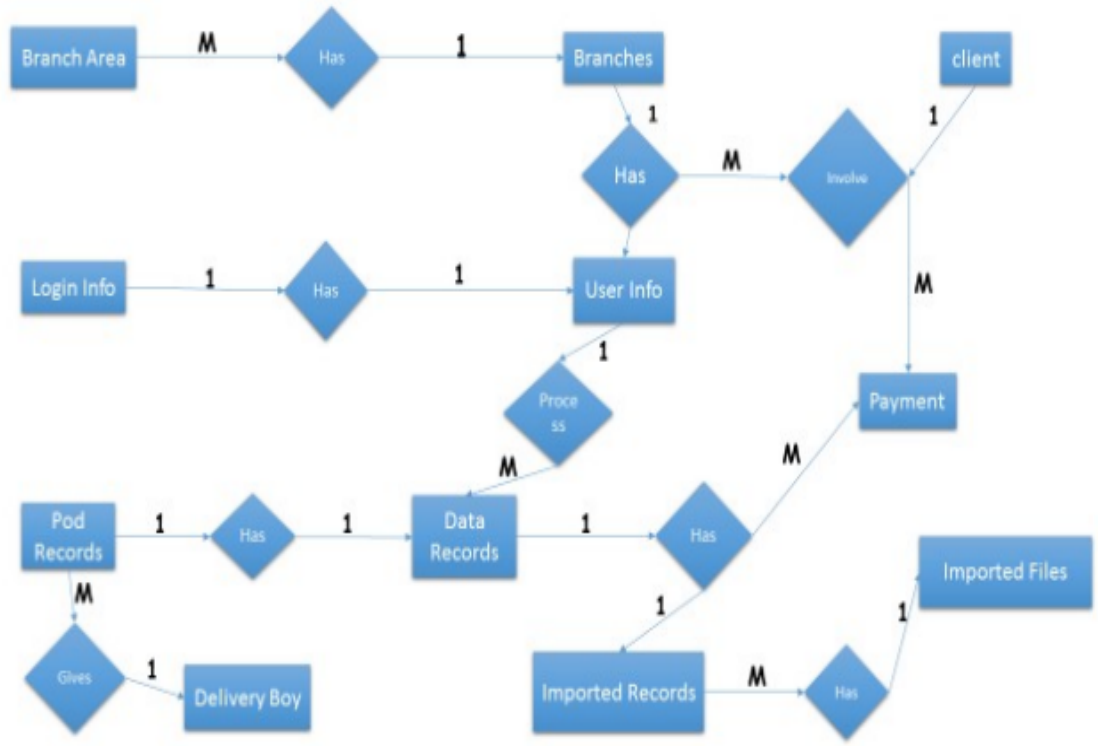

Figure 4.1

Chapter 5

IMPLEMENTATION

Project Name : Courier Management System (CMS)

Language Used **:** PHP

Database **:** MySQL

User Interface Design **:** HTML, CSS, BOOTSTRAP

Web Browser **:** Mozilla, Google Chrome, OPERA, Microsoft edge

Software **:** XAMPP / Wamp / Mamp/ Lamp (anyone)

How to run the Courier Management System

1. Extract the file and copy xampp in htdocs folder

2. Paste inside root directory(for xamppxampp/htdocs, for wamp wamp/www, for lamp var/www/html)

3. Open PHPMyAdmin (http://localhost/phpmyadmin)

4. Create a database with the name 370project

5. Import 370project.sql file(given inside the zip package in SQL file folder)

6. Run the script http://localhost/370project/

Credential for admin panel:

Username: group7

Password: Hello123

Chapter 6

RESULTS

6.1:

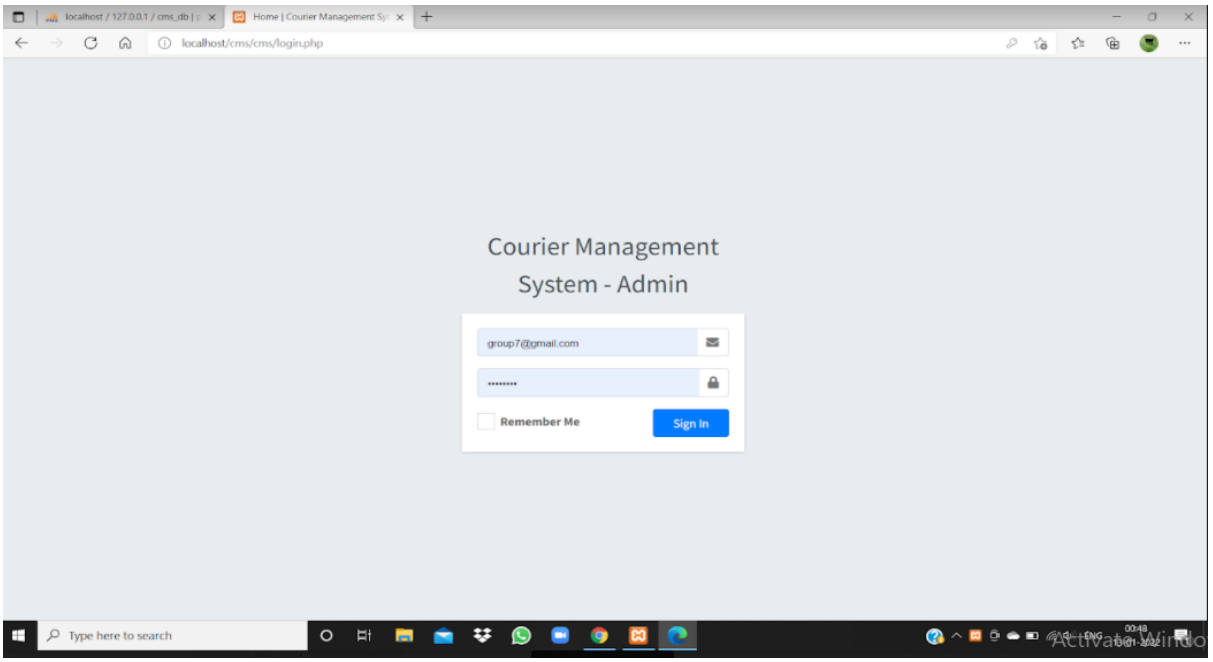

Figure 6.1: This Display's The Main Admin Login page.

6.2:

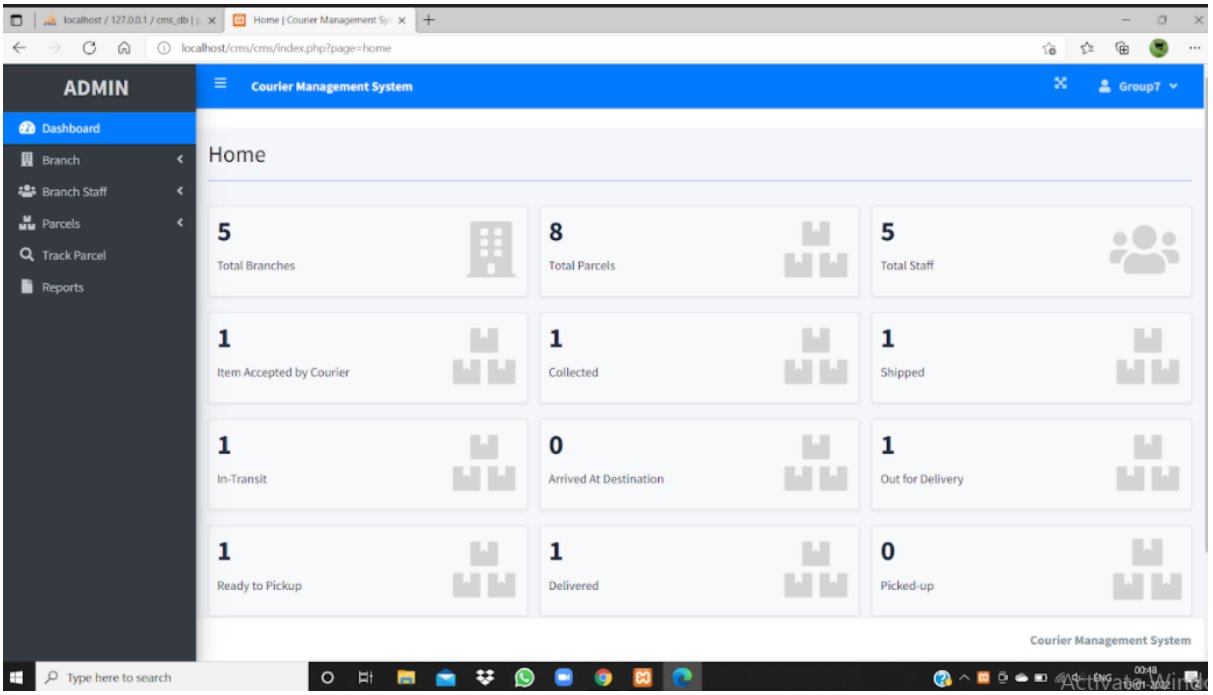

Figure 6.2: This Display's The Dashboard page

6.3:

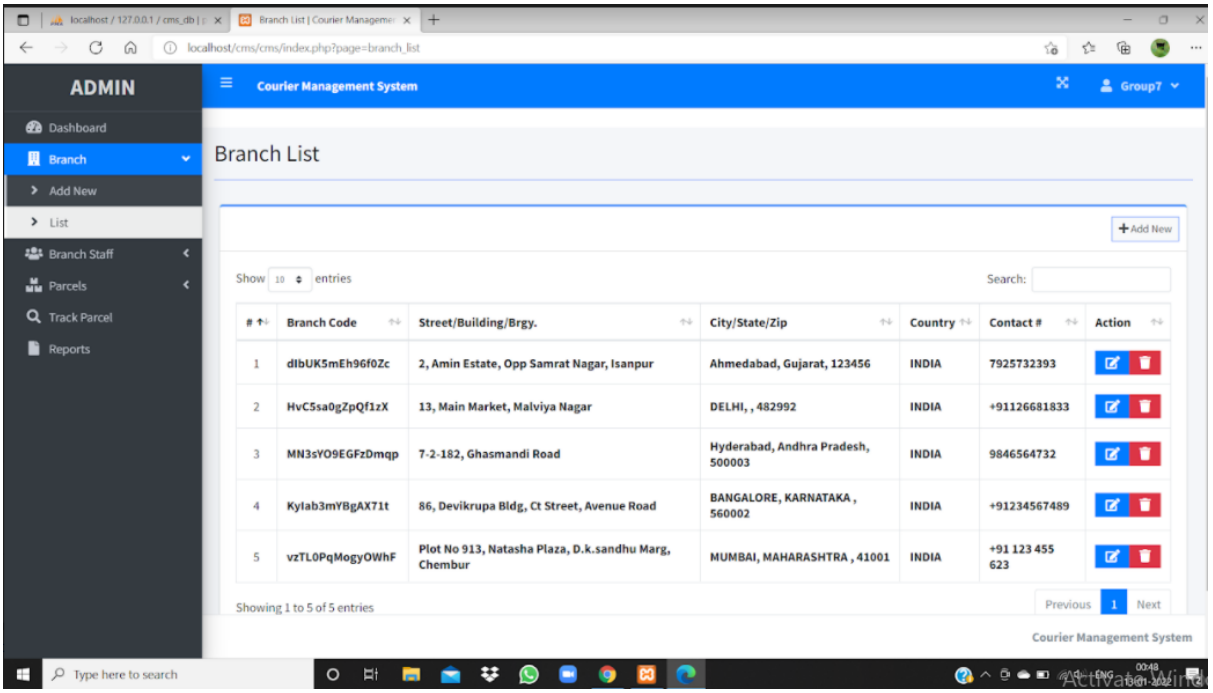

Figure6.3: This Display's the Branch List Page

6.4:

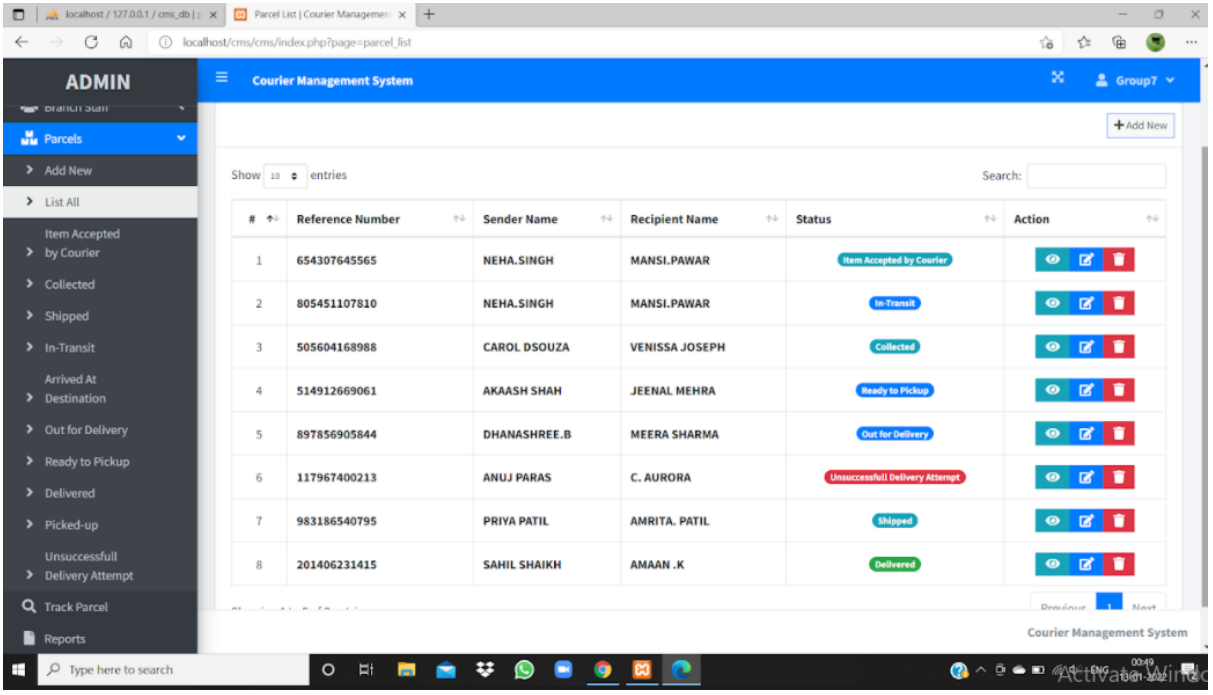

Figure6.4: This Display's the Parcel List Page

6.5:

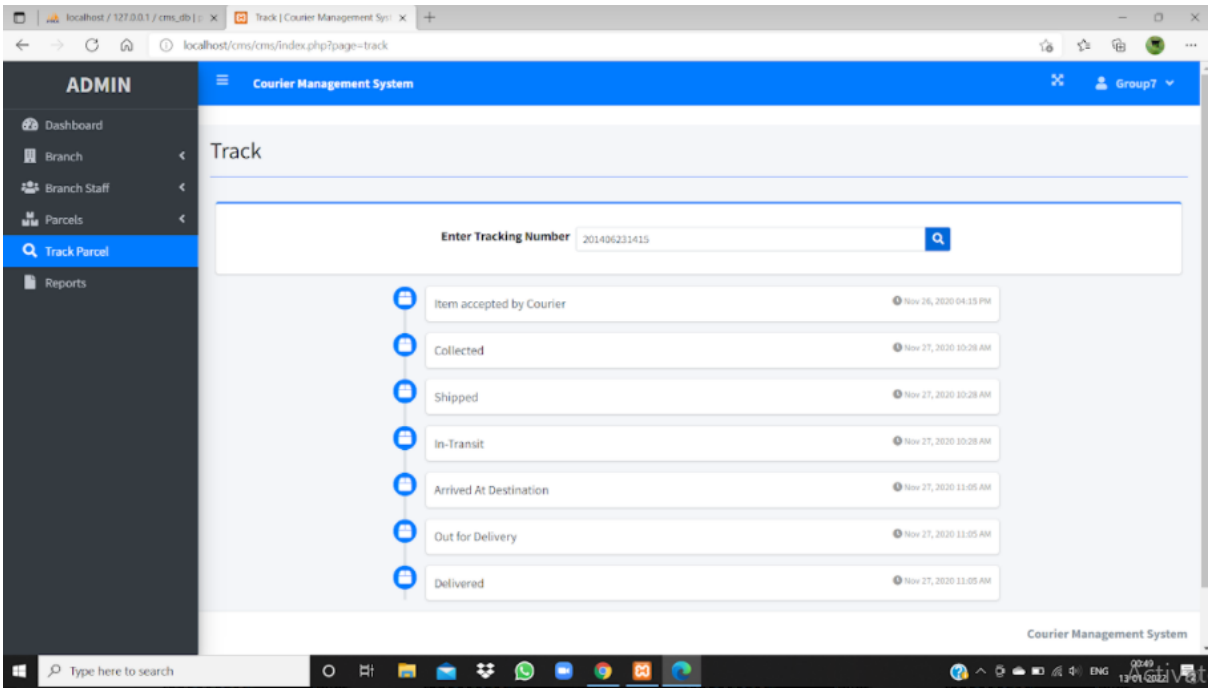

Figure 6.5: This Display's The Track Parcel Page

6.6:

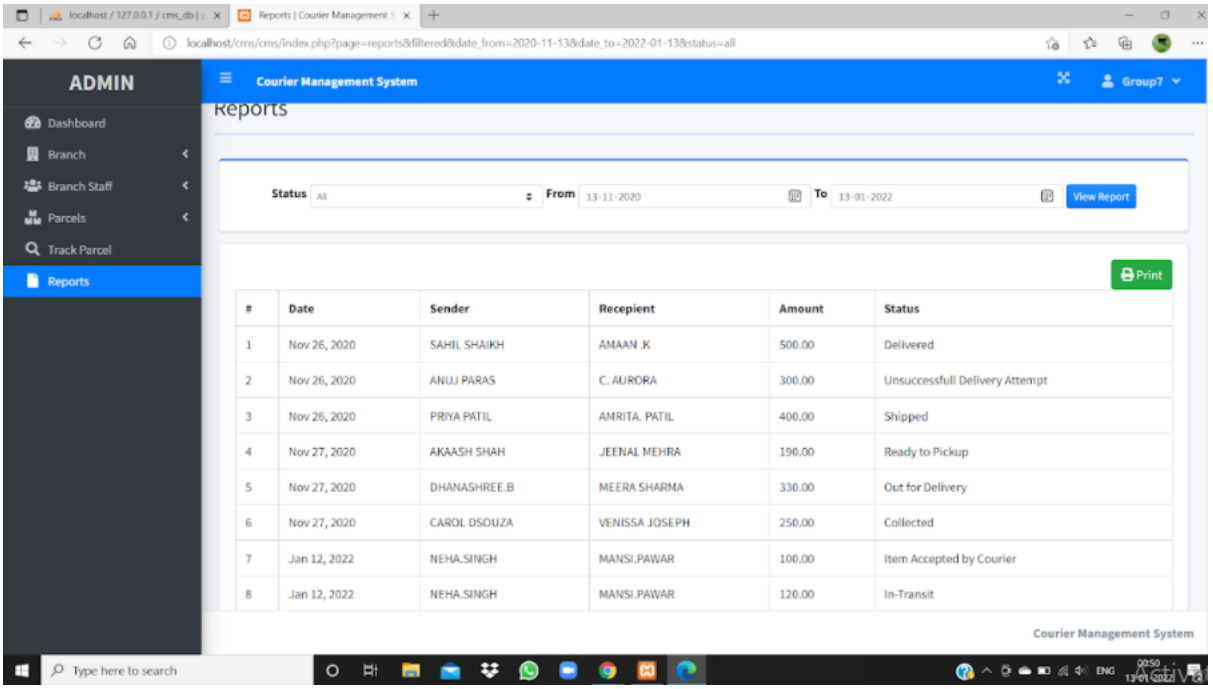

Figure 6.6: This Display's The Report Page

6.7:

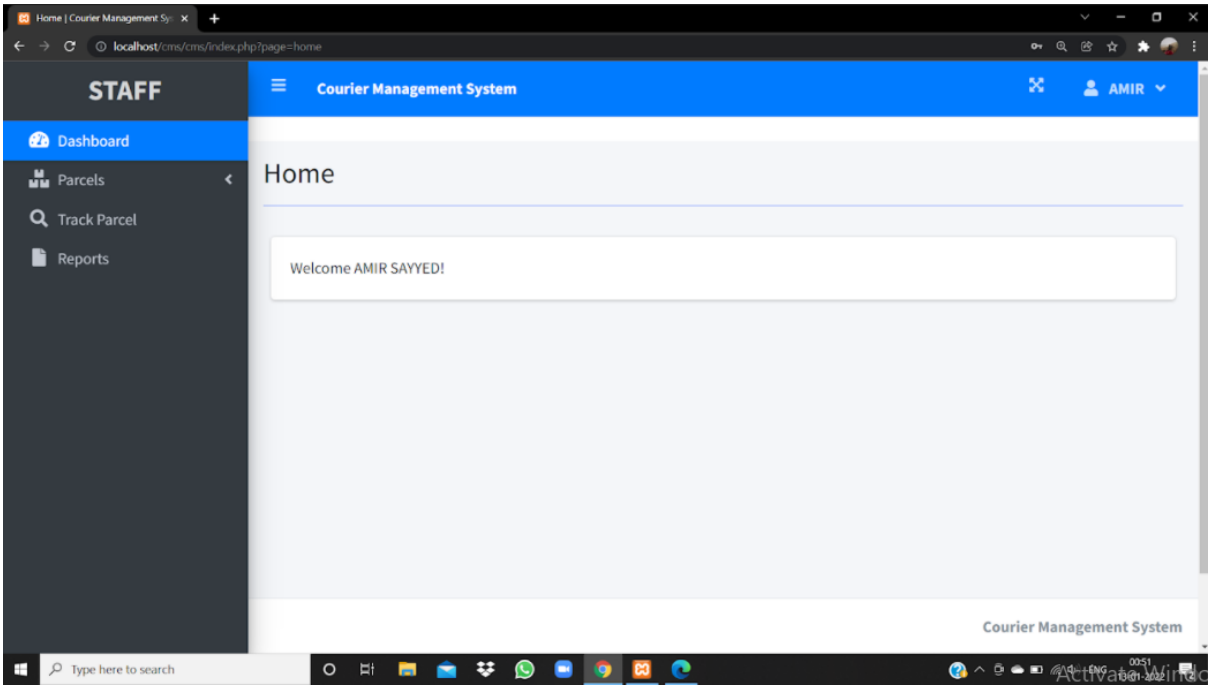

Figure 6.7: This Display's The Staff page

6.8:

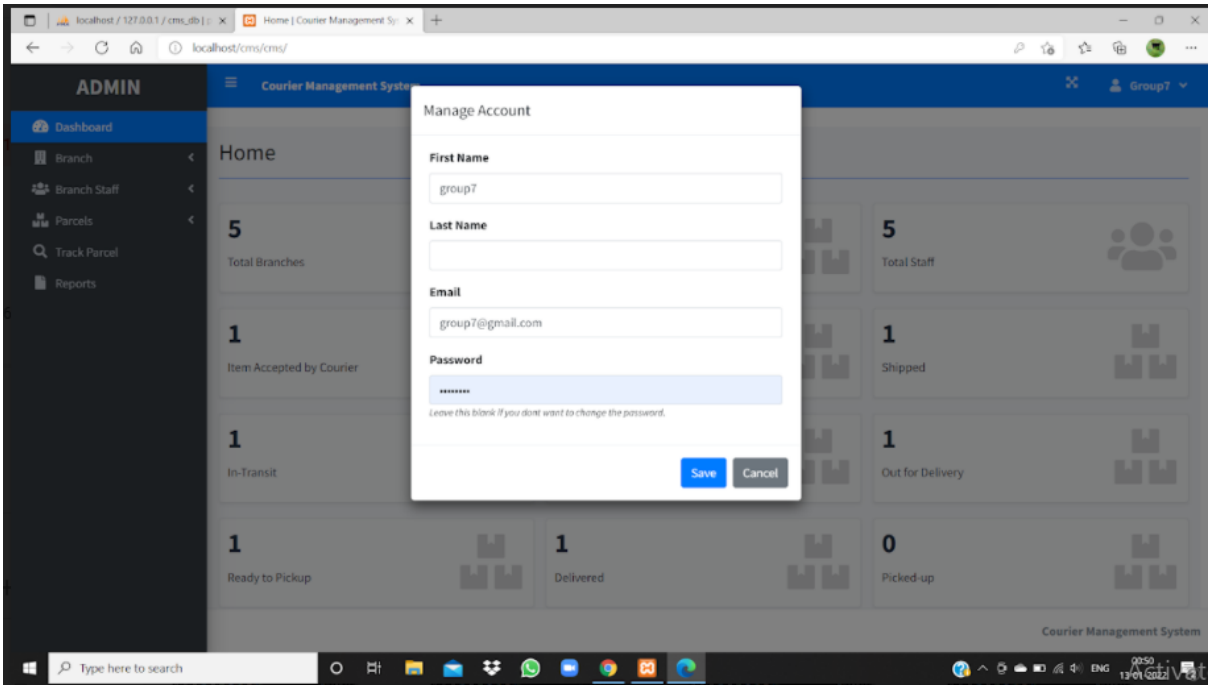

Figure 6.8: This Display's The Manage Account page

CONCLUSION

To summarize, the world is rapidly evolving and heading toward technical expertise. Technology is not a static or stagnant field, but rather one that is constantly changing as new trends arise. As patterns change and improve, it's past time for us to change with them. The use of courier management systems is important for getting accountability and making goods get delivered quickly and making the work easier. As a result, this system would make it easier for Kenya's courier companies to be accountable for all their services.

The work that will be applied with future releases of the program is described in the following section. Add more functionalities to the system like users can have bar codes to ease the job. Enhance User Interface by adding more user interactive features.

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