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CRUD operations

Submitted To:
Nurjahan Nipa
Lecturer,
Department of ICT,
BDU.

Submitted By:
Md. Shakil Mia
ID: 1901023
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Courier Management System

Abstract

By employing the Courier Management System may help small and large courier firms improve their services and increase sales and services. This technology is currently used by the majority of large-scale courier services in industrialized countries. In undeveloped or developing countries like Bangladesh, existing courier service companies use the manual management approach, which is a time-consuming operation. As a result, the goal of this project is to build and execute a Courier Management System capable of improving client deliveries by including features such as speed, security, and tracking from specific towns or cities to regional and national levels. Our system is a centralized management system. we have some great facilities like parcel tracking and reports by which a manager can identify exactly in which stage of delivery a particular parcel is and can post a report about any parcel.

Key Words: Courier management System, Centralized system, Manual management Approach, client deliveries, parcel tracking and repots.

Acknowledgement

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1. Introduction

1.1 Background
In this world of a growing economy, courier or parcel management business has become great revenue-generating field. Courier Management System is a web-based system that provides swift and efficient courier services to corporates and customers alike. If we look at the global market we see companies like DHL ,fedex, Ups etc are dominating the trade field, in our country companies like Sundarban courier service, paperfly, SA transportation are noteworthy because there is high demand of courier or parcel management that's why we develop our courier management system.

Courier management system is developed to manage a safe and centralized Courier management system by which admin can easily operate the whole system of a courier management. The core goals of this report are to define the entities, attributes and their relationship to create a database that can be easily manage by admin.

1.2 Problem Statement
After observing many national and world-wide courier or parcel transportation company management system we have seen a common problem that either most of them are operated in manual file base system of operated by a complex management system. which is much disturbing and time consuming for the employees working under, and this miss use of time causes the delay of a parcel delivery.

1.3 Objectives
The objectives of this report are to provide complete database for courier management which will help to reduce the complexity of management system and enrich the safety of information. we have developed this project for a centralized management purpose with all the benefits of DBMS.

1.4 Significance of this Project

Following are the facilities:
The total management system is operated by the admin. These are the functionality performed by the admin users :
• Login For Admin
• Forgot password for Admin
•Manage Courier
• Add Courier of the Customer
•View Details of the Courier
• Listing of all Courier
• Filter Courier according to Customer
• Manage Tracking
• Add Tracking of Courier
• Listing of the Tracking . Filter Tracking according to Courier Manage Offices
• Add branches
• Listing of the branches

• Filter and search branches
• Manage staffs
• Add Managers of Courier
• Listing of the Managers
• Filter and search Managers according to Offices
• Manage Shipment
• Add Shipment of Courier
• Listing of the Shipment
• Filter Shipment according to Courier
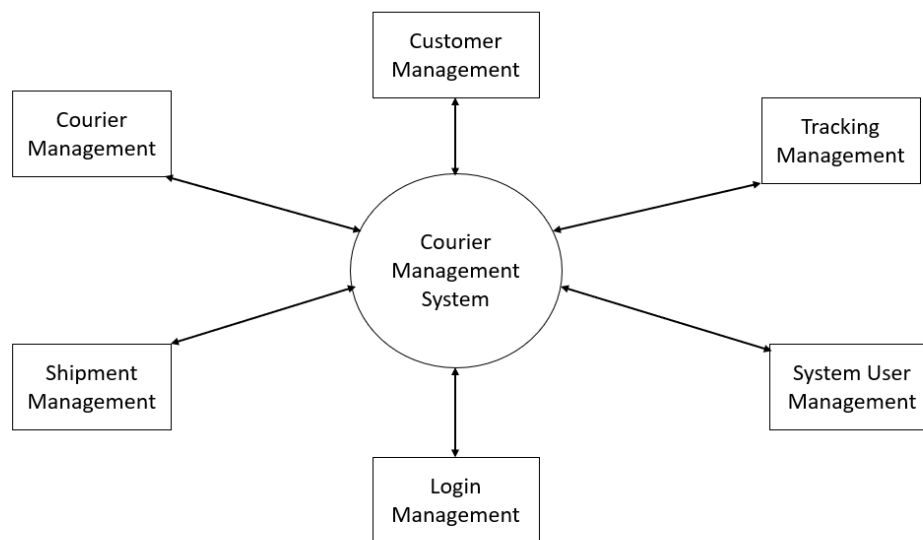• Reports of the project
• Report of all Tracking

Fig: 1.4.1 Feature of this system

2. System Requirement for Courier Management Systems

There are two types of Courier management systems; one is old fashioned which is used to keep Courier resource's detail manually but now a days computrised Courier systems are used because this is the world of technology and develompment so people prefered to use computer based systems rather than manual. There are three phases of database system design model, one is conceptual design second is logical design and third is physical model in which data has been placed in database. In our system all these three phases have been designed and described accordingly.

2.1 Tools and languages :

Technology Used : Web Server(Apache)
Design Tool : CSS ,Bootstrap
Language : HTML , PHP
Database : My SQL
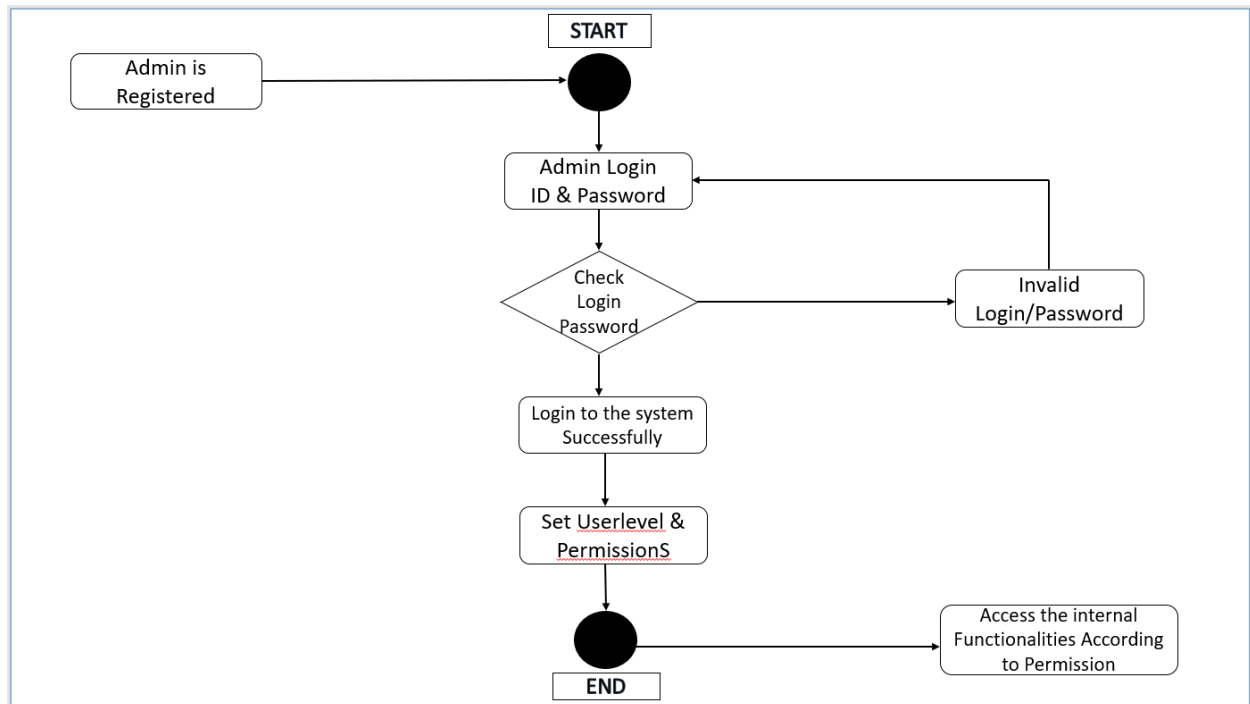
2.2 Algorithom:

Fig: 2.2.1Algorithom

2.3 Tables with Their attributes:

A table is a collection of related data held in a table format within a database. It consists of columns and rows. In relational databases, and flat file databases, a table is a set of data elements using a model of vertical columns and horizontal rows.

In relational databases, attributes are the describing characteristics or properties that define all items pertaining to a certain category applied to all cells of a column. The rows, instead, are called tuples, and represent data sets applied to a single entity to uniquely identify each item, the cell being the unit where a row and column intersect.

#Create 5(Five) table in the database:

2.3.1 Branches table creation:
Syntax:
CREATE TABLE branches (
 id int(30) NOT NULL,
 branch_code varchar (50) NOT NULL,
 street text NOT NULL,
 city text NOT NULL,
 state text NOT NULL,
 zip_code varchar(50) NOT NULL,
 country text NOT NULL,
 contact varchar(100) NOT NULL,
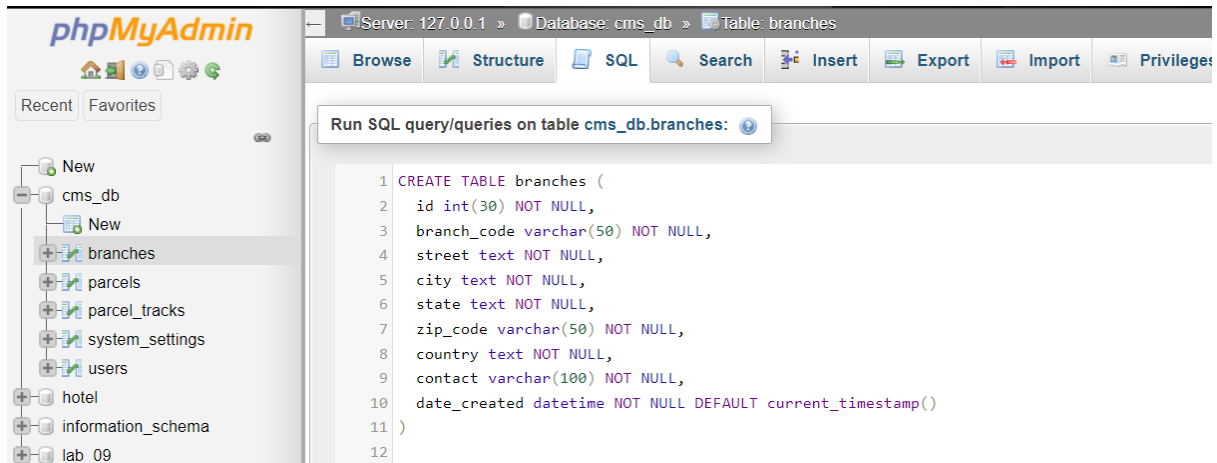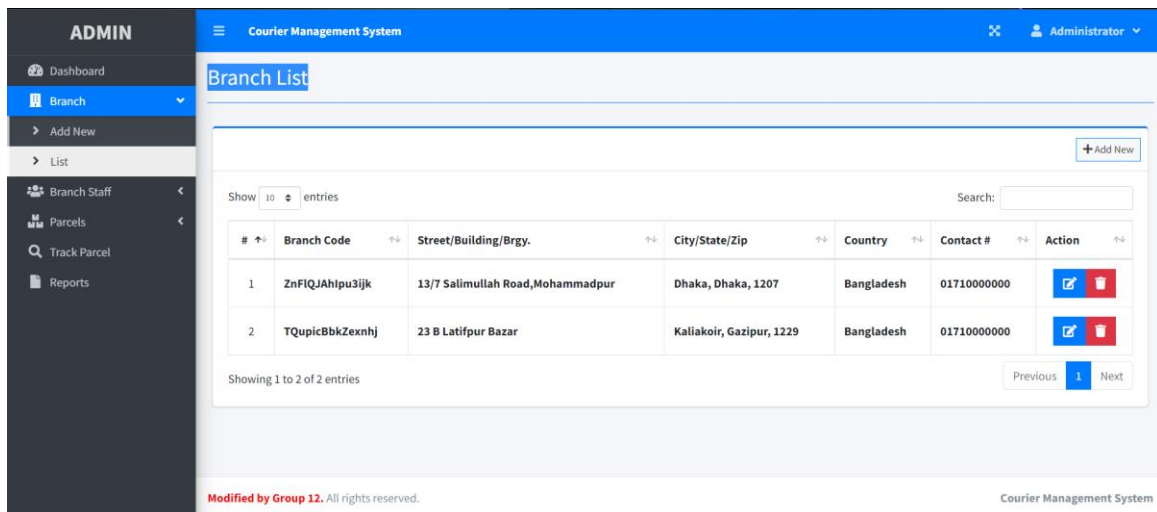 date_created datetime NOT NULL DEFAULT current_timestamp())

Fig: 2.3.1.1

Fig: 2.3.1.2

2.3.2 Parcels table creation:

Syntax:

```
CREATE TABLE parcels (
 id int(30) NOT NULL,
 reference_number varchar(100) NOT NULL,
 sender_name text NOT NULL,
 sender_address text NOT NULL,
 sender_contact text NOT NULL,
 recipient_name text NOT NULL,
 recipient_address text NOT NULL,
 recipient_contact text NOT NULL,
 type int(1) NOT NULL COMMENT 1 = Deliver, 2=Pickup,
 from_branch_id varchar(30) NOT NULL,
 to_branch_id varchar(30) NOT NULL,
```

weight varchar(100) NOT NULL,
height varchar(100) NOT NULL,
width varchar(100) NOT NULL,
length varchar(100) NOT NULL,
price float NOT NULL,
status int(2) NOT NULL DEFAULT 0,
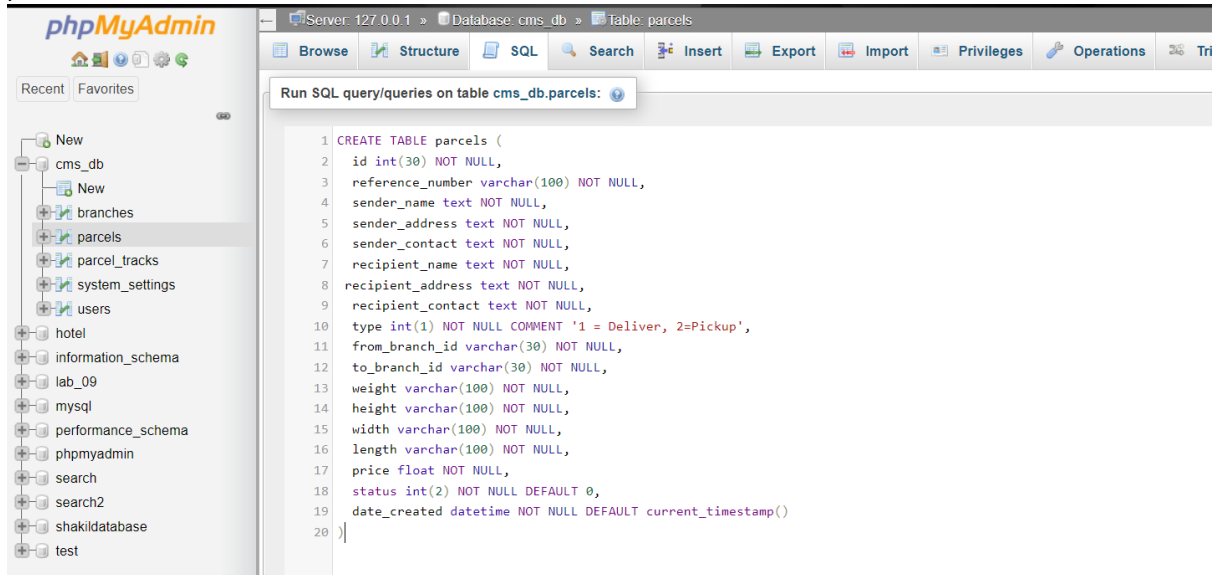date_created datetime NOT NULL DEFAULT current_timestamp()
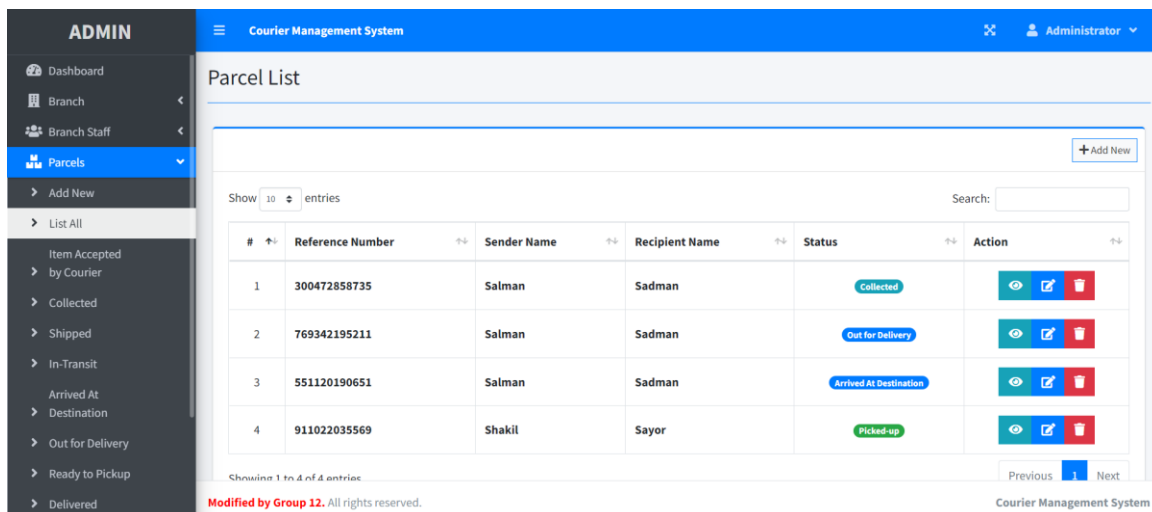)

Fig: 2.3.2.1

Web Page View

Fig: 2.3.2.2

2.3.3 Parcel_tracks table creation:
Syntax:

CREATE TABLE parcel_tracks (
 id int(30) NOT NULL,
 parcel_id int(30) NOT NULL,
 status int(2) NOT NULL,
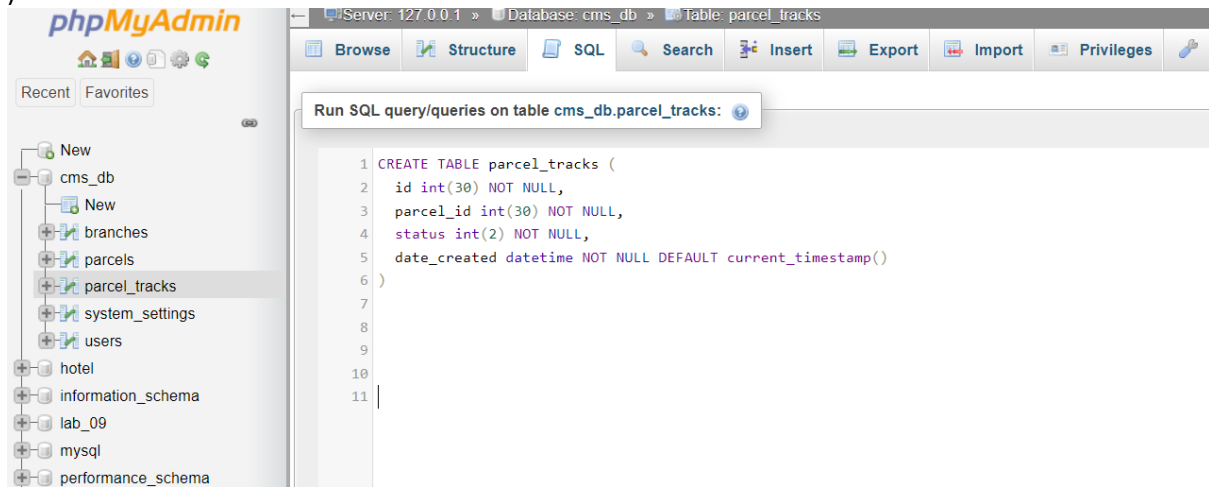 date_created datetime NOT NULL DEFAULT current_timestamp()
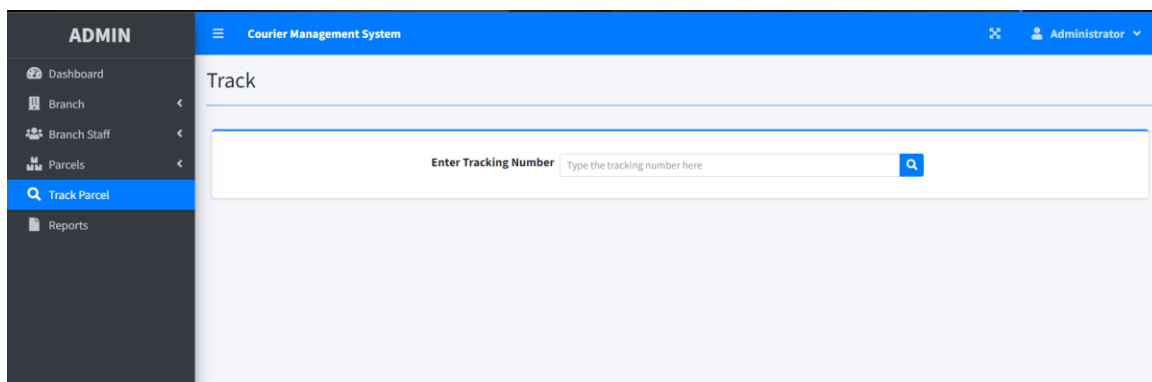)

Fig: 2.3.3.1

Web Page View

Fig: 2.3.3.2

2.3.4 System_settings table creation:
Syntax:
CREATE TABLE system_settings (
 id int(30) NOT NULL,
 name text NOT NULL,
 email varchar(200) NOT NULL,
 contact varchar(20) NOT NULL,
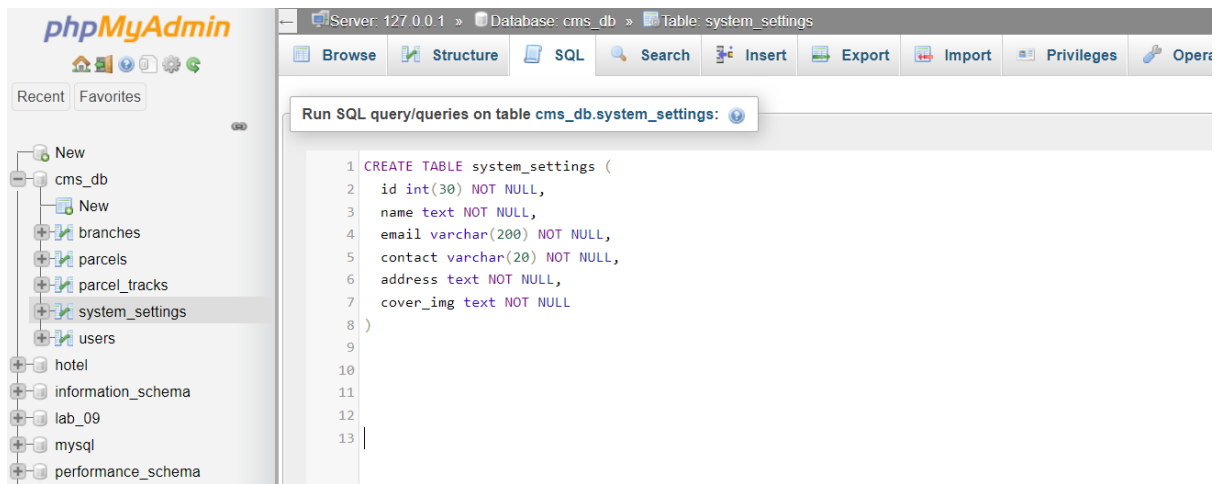 address text NOT NULL,
 cover_img text NOT NULL
)

Fig: 2.3.4.1

Web Page View
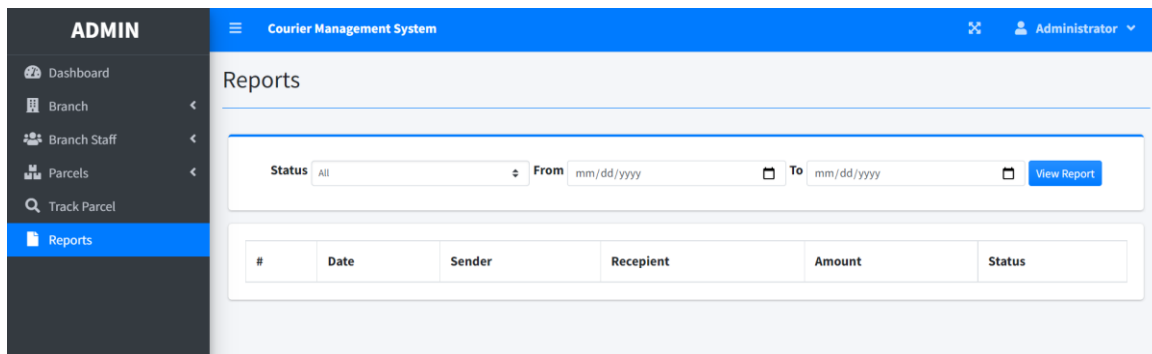
Fig: 2.3.4.4

2.3.5 Users table creation:

Syntax:

CREATE TABLE users (
 id int(30) NOT NULL,
 firstname varchar(200) NOT NULL,
 lastname varchar(200) NOT NULL,
 email varchar(200) NOT NULL,
 password text NOT NULL,
 type tinyint(1) NOT NULL DEFAULT 2 COMMENT 1 = admin, 2 = staff,
 branch_id int(30) NOT NULL,
 date_created datetime NOT NULL DEFAULT current_timestamp()
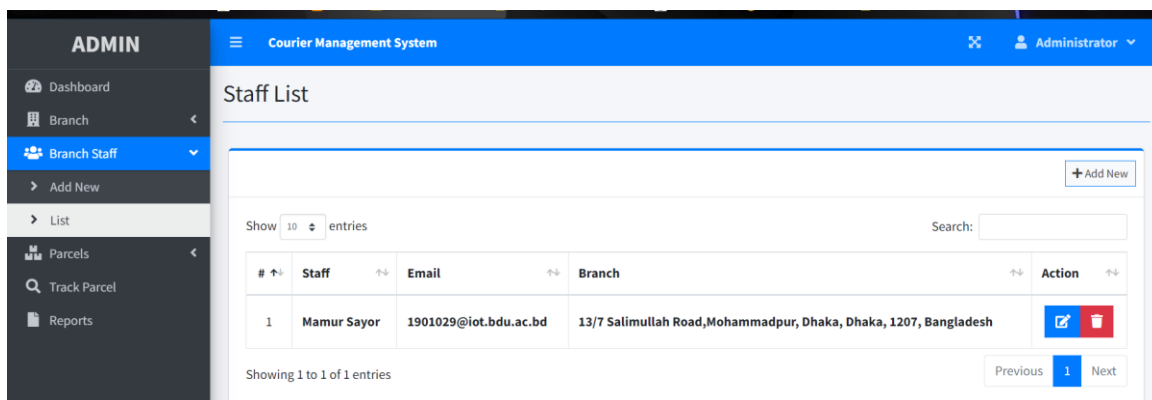)
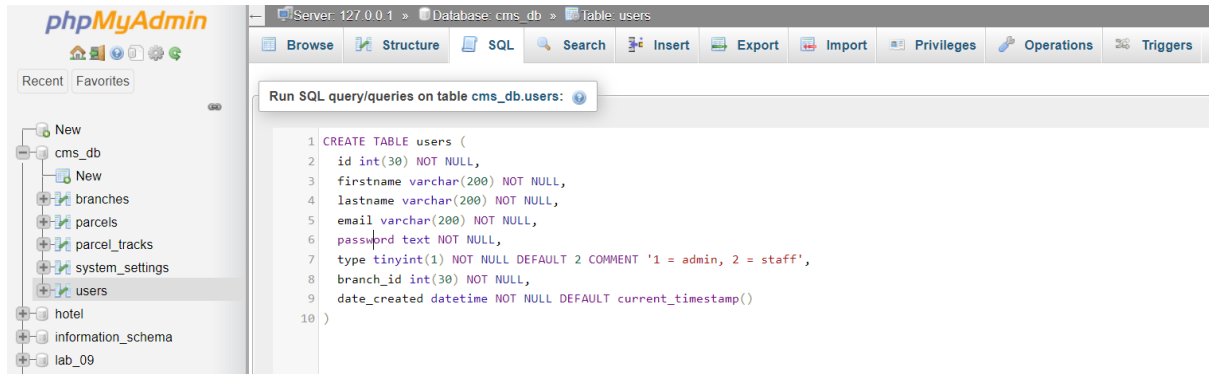
Web Page View
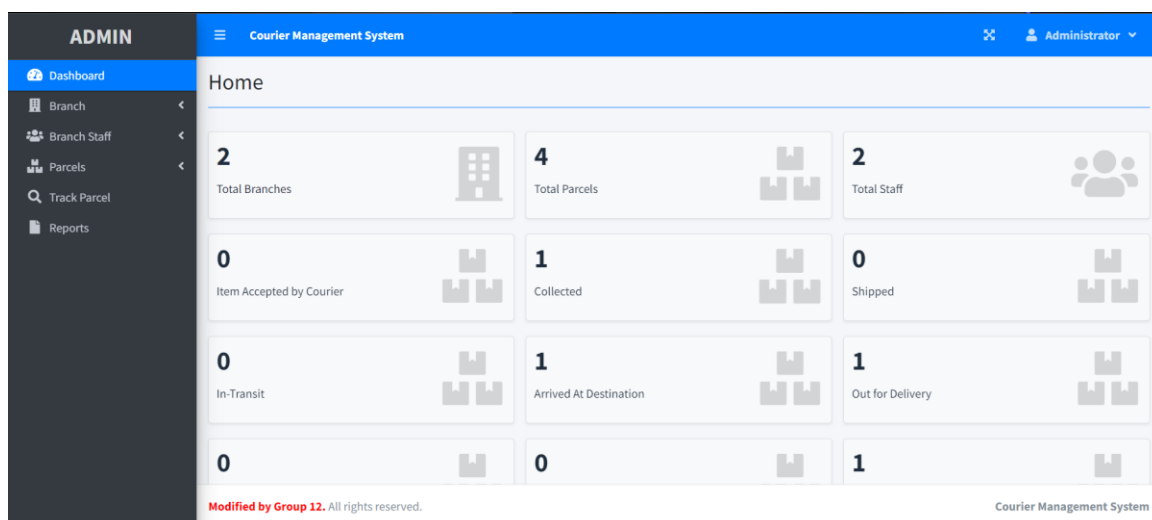

Fig: 2.3.5.1

3. Implementation:

Home Page View

Fig: 3.0

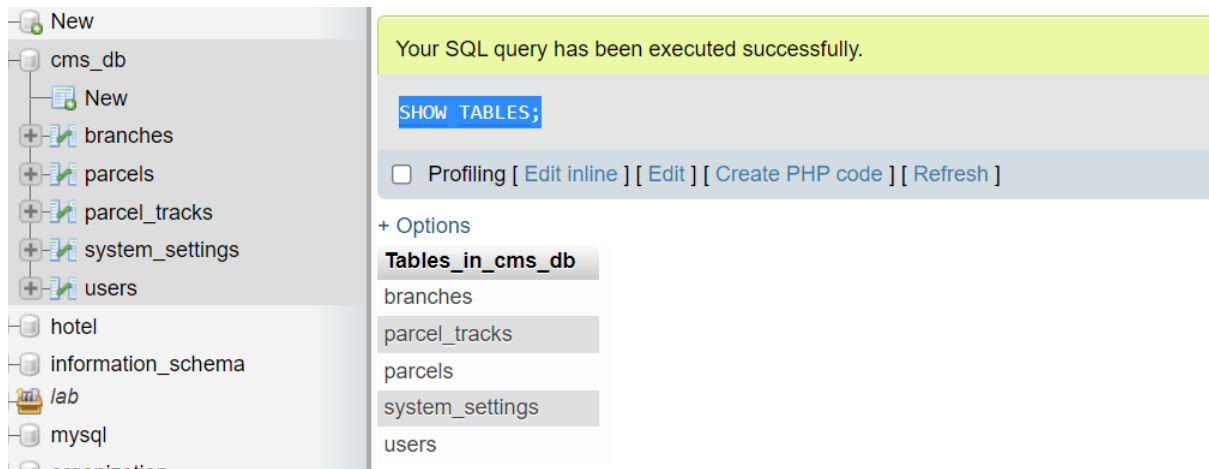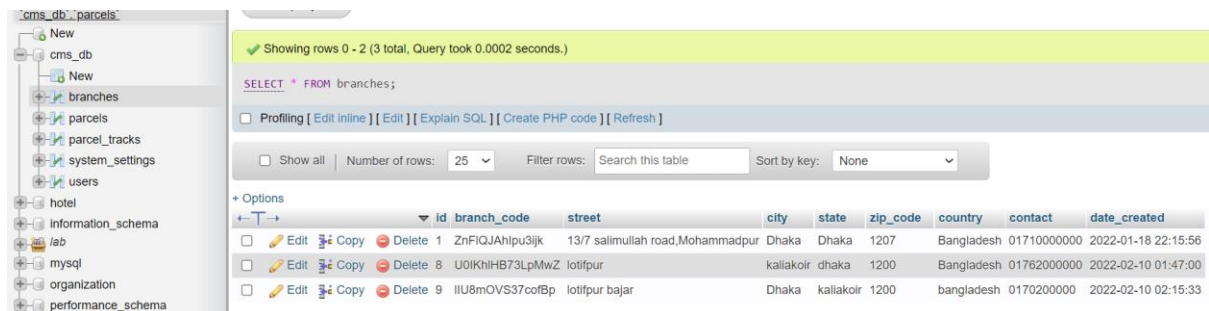## 3.1 Some of the major SQL queries and Commands:
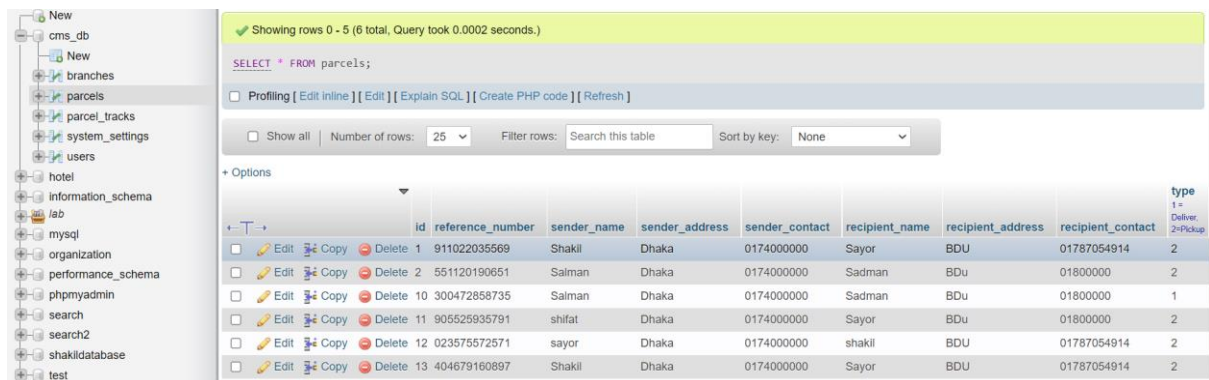
Syntax:

SHOW TABLES;

Fig: 3.1.1

Syntax:

SELECT * FROM branches;

Fig: 3.1.2

Syntax:

SELECT * FROM parcels;

Fig: 3.1.3

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4. Result and Discussion

It's a right time to rebuild the Courier system because as day by day number of students and staff are increasing in our institute and size of Courier is also expanding so we need workforce to handle it that's why there should be a seamless process which can handle all this pressure in proper way. At that point our teacher suggested the creation of relational database system which can manage all these problems.

4.1 Result:

In this project the main purpose is to simplify the work of a Courier Company . we have done some successful trail of our management system with less issues . So we can finally say that we successfully developed a centralized , secured and easy to operate management system for courier or parcel transportation company .

4.2 Discussion:

Our aim is to build a centralized, secured and easy to use Courier management System. In chapter 2 and 3 we see how we implemented this system. in this existing our no system is free from problems of disadvantages, Ours system has also some disadvantages or lacking . In 4.3 we have discussed about some of the disadvantages and lacking of our system.

4.3 Some of the disadvantages of this system :

Though our management system is easy to operate and secured but we need too many programming codes to create this system , so for the developers this might be too much time consuming that's why the system cost will be generally high. Our system is not connected to the web yet this is localhost based .in future we will try to reduce as much as difficulties of this project.

5. Conclusion & Future Scopes

5.1 Conclusion :

This project deals with courier management. This system deals with registering a parcel, tracking a parcel, and delivery of the parcel. This system is mainly used to handle a large volume (2000000) of parcel per day, find the optimum route for transferring the parcel, to increase the operational efficiencies, to increase the customer experience, and reduce the operational cost. The major idea behind this project is to automate the courier management system. The existing system is computerized to particular extent, but it has to do a lot of manual work. In this project the optimal route finding is totally automated and the update about the parcel location is also given.

This database is designed with that flexibility that it can be implemented in any Courier in future; it can be modified easily into new technology. We can add as many data as required.

5.2 Future Scopes:

Our management system is centralized and secured management system with all the benefits of Database management system ,Here we have implemented some important features but in future we can add more features .

Some of the major future scopes of this projects are :

➢ Online Availability
➢ Payment Method
➢ Announcements and notices
➢ User's reviews

6. Recommendations

Here we see how easily a company of agency can manage their parcel transportation by using this simple type of management system . its is low time consuming, secured and centralized .In the light of these conclusions, I recommend that database should be designed for every courier management system.

We should establish online Courier management system by using this database design at backend

In addition, continue to investigate new languages for database design so that a better access to database resources would be happen in future.

7. References

[1]Relationa Schema : https://erdplus.com/edit-diagram/b833c59c-a009-464d-8cd3-39dd59209275
[2]FlowChart:https://www.google.com/search?q=Flow+chart+for+courier+management%60 +system&sxsrf=APq-WBtXP8M20-L6zVRjpWG3DIeUsoT
[3]K. N. Durai and K. Baskaran, "Energy efficient random cast DSR protocol with mediation device in MANET," 2013
[4]Mr. Nishikant Kumar, Prof. Jayanti T," A Simple web Application of Courier Management System", IJERP
[5]https://qdoc.tips/courier-management-system-project-report-2-pdf-free.html
[6]http://www.bluedart.com/
[7]http://www.wampserver.com/en
[8]http://www.php.net
[9]http://www.tutorialspoint.com/mysql/
[10]httpd.apache.org/docs/2.0/misc/tutorials.html
[11] (HuffPost, 2014) Pizza Hut Tells Twitter It Made The First Online Sale In 1994 Retrieved from https://www.huffpost.com/entry/pizza-hut_n_3894981
[12] (BrightHubProjectManagement, N.D) Explaining the different types of feasibility study Retrieved from https://www.brighthubpm.com/project-planning/56372-types-of-feasibilitystudies
[13](w3schools.comN.D) HTML Intro Retrieved from https://www.w3schools.com/html/default.asp

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