

COURIER MANAGEMENT SYSTEM

REVIEW REPORT

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DATABASE MANAGEMENT SYSTEM (CSE2004)

PROJECT COMPONENT

School of Computer Science and Engineering



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

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Abstract:

Courier Management System is a web-based courier system which supports the high accessibility of courier services to the companies and to the customers. This system is being used for day to day activities such as booking a courier, maintain customer details, track the parcel.

Customers when transfer their products using any courier service want to know whether their product have been safely parceled to their right place or not, if not then by what time it will be delivered and what is the exact location of the product. Tracking all this information manually is very difficult and time taking process. To minimize these complexities, we require some system which can track the parcel on time basis.

1. Introduction

1.1 Background: Courier Management is a PHP, MySQL based project, demonstrating the functionalities required to run a Courier Service. The User can book a Courier and can view the status for the courier. Courier Management enables a branch manager to view all the couriers and manage the employees under him. An manager can update the status of the courier and mark the courier as delivered and specify the employee who delivered the courier. Courier Management project is made up of 2 modules namely, Branch and User.

1.2 Objective: This project deals with the 'Courier management'. The system is used for daily activities such as booking, non-delivery, out return, company details, hub rates, and pickup centers. It is very difficult to do this process manually. Hence it is recommended to computerize the process by developing the relative software as the world is turning into information and technology; computerization becomes necessity in all walks of life.

1.3 Motivation: To gain maximum business region, customer demands good service. So, to make more profit and gain maximum business region, their administration also has a system to tackle all these problems on time. Its administration can take immediate orders and provide a receipt which will include all the details of the products, along with the appropriate price to their customers. Thus, saving time and eliminating line making process.

1.4 Contributions of the Project:

Registration no.-	Name	Work assigned
19BCE2136	Somil Goyal	Coding, Implementation
19BC1024	Srinibha Rao	Normalization, Coding
19BCE0038	S. V. S JIGNESH	Coding, Making the report(7.1,7.2)
19BCB0104	S. SAI LALITHA	Coding, Making the report(2,3)
19BCI0238	A.VEERENDRANATH	Coding, Making the report(1)

1.5 Organization of the Project-

Download Xampp so that we can use phpMyAdmin on the local host. Making sql tables in the phymyadmin and naming the database 'Courier'. Linking the php codes to the htdocs folder of xampp and then trying to work on it- adding and updating the shipments, checking the status etc.

2.Project Resource Requirements

2.1 Software Requirements:

- Web Server(preferably Apache)-Apache Server-2.0
- PHP Version-5.3
- MySQL Version-5.5
- Browser-Chrome
- Operating system-Windows

2.2 Hardware Requirements:

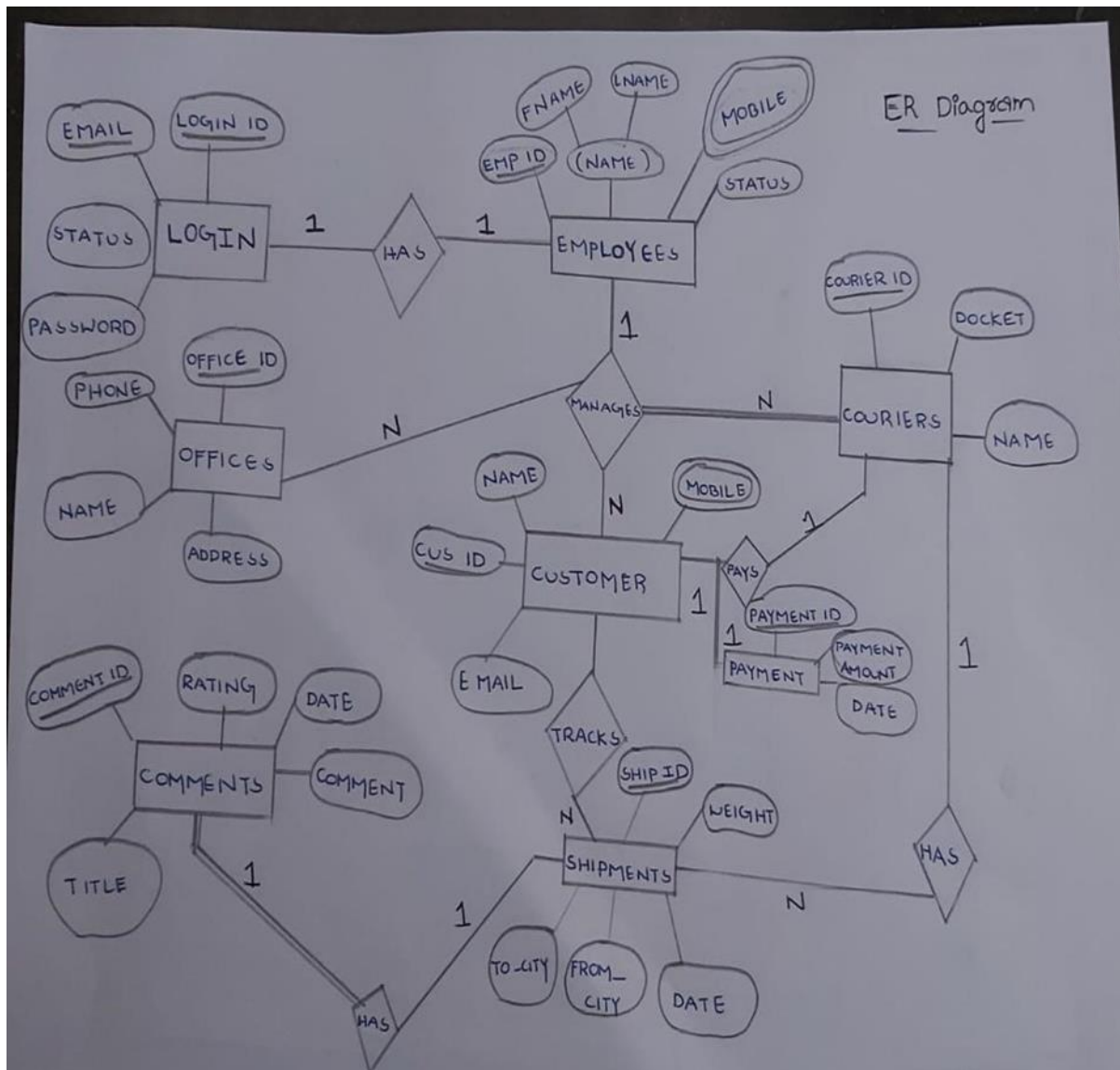
- Processor Pentium 1V
- Ram 128 MB
- Hard disk 150MB

3. Literature Survey:

Parcel services are something we take for granted every single day. With Amazon Prime able to handle shipping boxes to our doorstep in under 48 hours, we seem to just assume that quick delivery is the way things have always been. But have you ever stopped to consider the history of Parcel services? Where did this system originate, and how did it evolve into the massive economy it is today? Before the middle of the 19th century, you'd simply pay a Parcel to take your package to its destination. The Parcel would drop it off in a central location for the recipient to pick up and then be on his way. Basically, you had to hope you'd come across someone who was making the journey to wherever your mail needed to go to get items from Point A to Point B. We used to have no database of the earlier couriers and their status as whether they were delivered or was late. We had no database of the customers and couldn't record their reviews. When a person or company doesn't get any kind of reviews it doesn't improve just remains the same.

4. Design of the Project

4.1 ER Diagram:



Conceptual Schema:

```
graph TD
    LOGIN[LOGIN] --> EMPLOYEES[EMPLOYEES]
    EMPLOYEES --> OFFICES[OFFICES]
    EMPLOYEES --> CUS_MOBILE[CUS-MOBILE]
    EMPLOYEES --> CUSTOMER[CUSTOMER]
    EMPLOYEES --> COURIERS[COURIERS]
    EMPLOYEES --> SHIPMENT[SHIPMENT]
    EMPLOYEES --> COMMENTS[COMMENTS]
    EMPLOYEES --> MANAGES[MANAGES]
    OFFICES --> CUSTOMER
    OFFICES --> COURIERS
    OFFICES --> SHIPMENT
    OFFICES --> COMMENTS
    OFFICES --> MANAGES
    CUS_MOBILE --> CUSTOMER
    CUS_MOBILE --> COURIERS
    CUS_MOBILE --> SHIPMENT
    CUS_MOBILE --> COMMENTS
    CUS_MOBILE --> MANAGES
    CUSTOMER --> COURIERS
    CUSTOMER --> SHIPMENT
    CUSTOMER --> COMMENTS
    CUSTOMER --> MANAGES
    COURIERS --> SHIPMENT
    COURIERS --> COMMENTS
    COURIERS --> MANAGES
    SHIPMENT --> COMMENTS
    SHIPMENT --> MANAGES
    COMMENTS --> MANAGES
```

ATTRIBUTE	DATATYPE	CONSTRAINT
Login	Varchar	Primary key

ATTRIBUTE	DATATYPE	CONSTRAINT
Login	Varchar	Primary key

Email	Varchar	Unique, not null
Password	Varchar	Not null
Office_id	Varchar	Primary key
Name	Varchar	Not null
Address	Varchar	Not null
Emp_id	Varchar	Primary key
Name	Varchar	Not null
Mobile No.	Int	Not null
Cus_id	Varchar	Primary key
Name	Varchar	Not null
Email id	Varchar	Unique, not null
Payment_id	Varchar	Primary key
Amount	Int	Not null
Date	Date	Not null
Ship_id	Varchar	Primary key
Weight	Int	Not null
To_city	Varchar	Not null
From_city	Varchar	Not null
Comment_id	Varchar	Primary key
Rating	Int	
Comments	Varchar	

5. Implementation:

5.1 Introduction:

Some HTML Tags

<HTML>	:Starting an HTML tag
<HEAD>	: Creating a web page's head
<TITLE>	: Giving a web page 's body

</HEAD>	: Ending a web pages head
</BODY>	: Ending a web pages body
</HTML>	:Ending a web page
<FORM>	: Creating a HTML forms
<INPUT TYPE=BUTTON>	: Creating a buttons
<INPUT TYPE=CHECKBOX>	: Creating a checkboxes
<INPUT TYPE=SUBMIT>	: Creating a submit button
<INPUT TYPE=TEXT>	: Creating a text fields

Overview of the .NET Framework

The .NET Framework is a new computing platform that simplifies application development in the highly distributed environment of the Internet. The .NET Framework is designed to fulfill the following objectives:

- To provide a consistent object-oriented programming environment whether object code is stored and executed locally, executed locally but Internet-distributed, or executed remotely.
- To provide a code-execution environment that minimizes software deployment and versioning conflicts.
- To provide a code-execution environment that guarantees safe execution of code, including code created by an unknown or semi-trusted third party.
- To provide a code-execution environment that eliminates the performance problems of scripted or interpreted environments.
- To make the developer experience consistent across widely varying types of applications, such as Windows-based applications and Web-based applications.
- To build all communication on industry standards to ensure that code based on the .NET Framework can integrate with any other code.

The .NET Framework has two main components: the common language runtime and the .NET Framework class library. The common language runtime is the foundation of the .NET Framework. You can think of the runtime as an agent that manages code at execution time, providing core services such as memory management, thread

management, and remoting, while also enforcing strict type safety and other forms of code accuracy that ensure security and robustness. In fact, the concept of code management is a fundamental principle of the runtime. Code that targets the runtime is known as managed code, while code that does not target the runtime is known as unmanaged code. The class library, the other main component of the .NET Framework, is a comprehensive, object-oriented collection of reusable types that you can use to develop applications ranging from traditional command-line or graphical user interface (GUI) applications to applications based on the latest innovations provided by ASP.NET, such as Web Forms and XML Web services.

The .NET Framework can be hosted by unmanaged components that load the common language runtime into their processes and initiate the execution of managed code, thereby creating a software environment that can exploit both managed and unmanaged features. The .NET Framework not only provides several runtime hosts, but also supports the development of third-party runtime hosts.

For example, ASP.NET hosts the runtime to provide a scalable, server-side environment for managed code. ASP.NET works directly with the runtime to enable Web Forms applications and XML Web services, both of which are discussed later in this topic.

Internet Explorer is an example of an unmanaged application that hosts the runtime (in the form of a MIME type extension). Using Internet Explorer to host the runtime enables you to embed managed components or Windows Forms controls in HTML documents. Hosting the runtime in this way makes managed mobile code (similar to Microsoft® ActiveX® controls) possible, but with significant improvements that only managed code can offer, such as semi-trusted execution and secure isolated file storage.

1.1 Features of the Common Language Runtime

The common language runtime manages memory, thread execution, code execution, code safety verification, compilation, and other system services. These features are intrinsic to the managed code that runs on the common language runtime.

With regards to security, managed components are awarded varying degrees of trust, depending on a number of factors that include their origin (such as the Internet, enterprise network, or local computer). This means that a managed component might or might not be able to perform file-access operations, registry-access operations, or other sensitive functions, even if it is being used in the same active application.

The runtime enforces code access security. For example, users can trust that an executable embedded in a Web page can play an animation on screen or sing a song, but cannot access their personal data, file system, or network. The security features of the runtime thus enable legitimate Internet-deployed software to be exceptionally feature rich.

The runtime also enforces code robustness by implementing a strict type- and code-verification infrastructure called the common type system (CTS). The CTS ensures that all managed code is self-describing. The various Microsoft and third-party language compilers generate managed code that conforms to the CTS. This means that managed code can consume other managed types and instances, while strictly enforcing type fidelity and type safety.

In addition, the managed environment of the runtime eliminates many common software issues. For example, the runtime automatically handles object layout and manages references to objects, releasing them when they are no longer being used. This automatic memory management resolves the two most common application errors, memory leaks and invalid memory references.

The runtime also accelerates developer productivity. For example, programmers can write applications in their development language of choice, yet take full advantage of the runtime, the class library, and components written in other languages by other developers. Any compiler vendor who chooses to target the runtime can do so. Language compilers that target the .NET Framework make the features of the .NET Framework available to existing code written in that language, greatly easing the migration process for existing applications.

While the runtime is designed for the software of the future, it also supports software of today and yesterday. Interoperability between managed and unmanaged code enables developers to continue to use necessary COM components and DLLs.

The runtime is designed to enhance performance. Although the common language runtime provides many standard runtime services, managed code is never interpreted. A feature called just-in-time (JIT) compiling enables all managed code to run in the native machine language of the system on which it is executing. Meanwhile, the memory manager removes the possibilities of fragmented memory and increases memory locality-of-reference to further increase performance.

Finally, the runtime can be hosted by high-performance, server-side applications, such as Microsoft® SQL Server™ and Internet Information Services (IIS). This infrastructure enables you to use managed code to write your business logic, while still enjoying the superior performance of the industry's best enterprise servers that support runtime hosting.

2. COMMON TYPE SYSTEM

The common type system defines how types are declared, used, and managed in the runtime, and is also an important part of the runtime's support for cross-language integration.

Language Interoperability

Describes built-in support for cross-language interoperability and introduces the Common Language Specification.

2.1 .NET Framework Class Library

The .NET Framework class library is a collection of reusable types that tightly integrate with the common language runtime. The class library is object oriented, providing types from which your own managed code can derive functionality. This not only makes the .NET Framework types easy to use, but also reduces the time associated with learning new features of the .NET Framework. In addition, third-party components can integrate seamlessly with classes in the .NET Framework.

In addition to these common tasks, the class library includes types that support a variety of specialized development scenarios. For example, you can use the .NET Framework to develop the following types of applications and services:

- Console applications.
- Scripted or hosted applications.
- Windows GUI applications (Windows Forms).
- ASP.NET applications.
- XML Web services.
- Windows services.

2.2 Client Application Development

Client applications are the closest to a traditional style of application in Windows-based programming. These are the types of applications that display windows or forms on the desktop, enabling a user to perform a task. Client applications include applications such as word processors and spreadsheets, as well as custom business applications such as data-entry tools, reporting tools, and so on. Client applications usually employ windows, menus, buttons, and other GUI elements, and they likely access local resources such as the file system and peripherals such as printers. Another kind of client application is the traditional ActiveX control (now replaced by the managed Windows Forms control) deployed over the Internet as a Web page. It is executed natively, has access to local resources, and includes graphical elements.

metadata.

The .NET Framework is bundled with a small set of four providers:

- **SQL Server Provider:** Provides optimized access to a SQL Server database (version 7.0 or later).
- **OleDb Provider:** Provides access to any data source that has an OleDb driver. This includes SQL Server databases prior to version 7.0.
- **Oracle Provider:** Provides optimized access to an Oracle database (version 8i or later).

- **ODBC Provider:** Provides access to any data source that has an ODBC driver.

5.RDBMS CONCEPTS

1. DATA ABSTRACTION

A major purpose of a database system is to provide users with an abstract view of the data. This system hides certain details of how the data is stored and maintained. However in order for the system to be usable, data must be retrieved efficiently. The efficiency lead to the design of complex data structure for the representation of data in the database. Certain complexity must be hidden from the database system users. This accomplished by defining several levels of abstraction at which the database may be viewed.

2. CLASSIFICATION OF DATABASE

There are 3 types of database approaches given below,

a. Hierarchical Database:

In this type of model data is represented in simple tree structured. The record at the top of three is known as root, the root may have any number of dependents. Each of these may have any number of low level dependents and so on up to any number of levels. The disadvantages of the approach are that no independent record occurrence can exist without it's superior.

b. Network Database:

In a Network database, data is represented by Network structure. In this approach record occurrence can have any number of superiors as well as any number of immediate dependents thus allow many to many correspondence directly than an hierarchical approach. The main disadvantage of the Network model is data representation is very complex resulting in complexity of the DML (Data Manipulation Language).

c. Relational Database:

The Relational model represents data and relationships among data by a collection of tables each of which has a number of columns with unique names.

6.THE SQL LANGUAGE

SQL is a language for relational database. SQL is a non-procedural i.e., when we use SQL we specify what we want to be done not how to do it.

Features Of SQL

1. SQL is an interactive query language.
2. SQL is a database administration language.
3. SQL is a database programming language.
4. SQL is a client/server language.
5. SQL is a distributed database language.
6. SQL is a database gateway language.

Basic SQL Commands

Data Definition Language commands (DDL)

Data Manipulation Language commands (DML)

Transaction Control Language commands (TCL)

Data control Language commands (DCL)

5.2 Implementation :

LOGIN

Login_id	Email	password
----------	-------	----------

```
somilgoyal — mysql -uroot -p — 80x24
Your MySQL connection id is 20
Server version: 8.0.21 MySQL Community Server - GPL

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Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

[mysql> create database dbmsproject
-> ;
Query OK, 1 row affected (0.02 sec)

[mysql> use dbmsproject;
Database changed
mysql> CREATE TABLE Login (
-> login_id varchar(20) PRIMARY KEY,
-> email varchar(40) unique not null,
-> password varchar(40) not null
-> );
Query OK, 0 rows affected (0.03 sec)
```

```
[mysql> desc Login;
```

Field	Type	Null	Key	Default	Extra
Login_id	varchar(20)	NO	PRI	NULL	
email	varchar(40)	NO	UNI	NULL	
password	varchar(40)	NO		NULL	

```
3 rows in set (0.02 sec)
```

OFFICES

Office_id	Phone	Name	Address
-----------	-------	------	---------

```
address varchar(' at line 3
mysql> CREATE TABLE Office (
  -> Office_id varchar(30) PRIMARY KEY,
  -> phone int(10) unique not null,
  -> Name varchar(40) not null,
  -> address varchar(50)
  -> );
Query OK, 0 rows affected, 1 warning (0.02 sec)
```

```
mysql> desc Office;
```

Field	Type	Null	Key	Default	Extra
Office_id	varchar(30)	NO	PRI	NULL	
phone	int	NO	UNI	NULL	
Name	varchar(40)	NO		NULL	
address	varchar(50)	YES		NULL	

```
4 rows in set (0.02 sec)
```

EMPLOYEES

Emp_id	Fname	Lname	Mobile	Login_id	Office_id
--------	-------	-------	--------	----------	-----------

```
mysql> CREATE TABLE Employee (
  -> Emp_id varchar(20),
  -> fname varchar(30) not null,
  -> lname varchar(20),
  -> Login_id varchar(40) NOT NULL,
  -> Office_id varchar(40) NOT NULL,
  -> PRIMARY KEY(Emp_id,Login_id,Office_id),
  -> FOREIGN KEY (Login_id) REFERENCES Login(Login_id),
  -> FOREIGN KEY (Office_id) REFERENCES Office(Office_id)
  -> );
Query OK, 0 rows affected (0.03 sec)
```



```
mysql> desc Employee;
```

Field	Type	Null	Key	Default	Extra
Emp_id	varchar(20)	NO	PRI	NULL	
fname	varchar(30)	NO		NULL	
lname	varchar(20)	YES		NULL	
Login_id	varchar(40)	NO	PRI	NULL	
Office_id	varchar(40)	NO	PRI	NULL	

5 rows in set (0.01 sec)

As mobile is a multivalued attribute we made a separate table for mobile number of employees as it can't be in table Employee as Emp_id is primary key.

Emp_mobile

Emp_id	Mobile1	Mobile2
--------	---------	---------

```
mysql> create table Emp_mobile(
  -> Emp_id varchar(20) PRIMARY KEY,
  -> Mobile1 int(10) Not null,
  -> Mobile2 int(10),
  -> FOREIGN KEY (Emp_id) REFERENCES Employee(Emp_id)
  -> );
Query OK, 0 rows affected, 2 warnings (0.02 sec)
```

```
mysql> desc Emp_mobile;
```

Field	Type	Null	Key	Default	Extra
Emp_id	varchar(20)	NO	PRI	NULL	
Mobile1	int	NO		NULL	
Mobile2	int	YES		NULL	

3 rows in set (0.00 sec)

```
mysql>
```

CUSTOMER

Cus_id	Name	Email	Mobile	Emp_id
--------	------	-------	--------	--------

```
mysql> create table Customer(
  -> Cus_id varchar(30),
  -> Name varchar(50) not null,
  -> Email varchar(100) unique not null,
  -> Emp_id varchar(20),
  -> PRIMARY KEY(Cus_id, Emp_id),
  -> FOREIGN KEY (Emp_id) REFERENCES Employee(Emp_id)
  -> );
ERROR 1068 (42000): Multiple primary key defined
mysql>
Query OK, 0 rows affected (0.03 sec)
```

```
mysql> desc Customer;
```

Field	Type	Null	Key	Default	Extra
Cus_id	varchar(30)	NO	PRI	NULL	
Name	varchar(50)	NO		NULL	
Email	varchar(100)	NO	UNI	NULL	
Emp_id	varchar(20)	NO	PRI	NULL	

4 rows in set (0.01 sec)

```
mysql>
```

As mobile is a multivalued attribute we made a separate table for mobile number of customers as it

can't be in table customer as cus_id is primary key.

CUS_MOBILE

Cus_id	Mobile1	Mobile2
--------	---------	---------

```
somilgoyal — mysql -uroot -p — 80x24
+-----+-----+-----+-----+-----+
| Email | varchar(100) | NO | UNI | NULL | | |
| Emp_id | varchar(20) | NO | PRI | NULL | | |
+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)

[mysql> create table Cus_mobile(
[   -> Cus_id varchar(20) PRIMARY KEY,
[   -> Mobile1 int(10) not null,
[   -> Mobile2 int(10),
[   -> FOREIGN KEY (Cus_id) REFERENCES Customer(Cus_id)
[   -> );
Query OK, 0 rows affected, 2 warnings (0.03 sec)

[mysql> desc Cus_mobile;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| Cus_id | varchar(20) | NO | PRI | NULL | |
| Mobile1 | int | NO | | NULL | |
| Mobile2 | int | YES | | NULL | |
+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

mysql>
```

PAYMENT

Payment_id	Amount	Date	Cus_id
------------	--------	------	--------

```
somilgoyal — mysql -uroot -p — 80x24
Query OK, 0 rows affected (0.02 sec)

[mysql> CREATE TABLE Payment (
[   -> Payment_id varchar(20),
[   -> Amount int(20) not null,
[   -> Date date,
[   -> Cus_id varchar(20),
[   -> PRIMARY KEY(Payment_id,Cus_id),
[   -> FOREIGN KEY (Cus_id) REFERENCES Customer(Cus_id)
[   -> );
Query OK, 0 rows affected, 1 warning (0.02 sec)

[mysql> desc Payment;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| Payment_id | varchar(20) | NO | PRI | NULL | |
| Amount | int | NO | | NULL | |
| Date | date | YES | | NULL | |
| Cus_id | varchar(20) | NO | PRI | NULL | |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

SHIPMENT

Ship_id	Weight	Date	To_city	From_city	Emp_id
---------	--------	------	---------	-----------	--------

```

mysql> create table Shipment(
  -> Ship_id varchar(30),
  -> Weight int(9) not null,
  -> Date date not null,
  -> To_city varchar(20) not null,
  -> From_city varchar(20) not null,
  -> Emp_id varchar(20),
  -> PRIMARY KEY(Ship_id, Emp_id),
  -> FOREIGN KEY(Emp_id) REFERENCES Employee(Emp_id)
  -> );
Query OK, 0 rows affected, 1 warning (0.16 sec)

mysql> desc Shipment;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Ship_id    | varchar(30)   | NO   | PRI | NULL    |       |
| Weight     | int           | NO   |     | NULL    |       |
| Date       | date          | NO   |     | NULL    |       |
| To_city    | varchar(20)   | NO   |     | NULL    |       |
| From_city  | varchar(20)   | NO   |     | NULL    |       |
| Emp_id     | varchar(20)   | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.04 sec)

```

COURIERS

Courier_id	Docket	Name	Cus_id	Ship_id	Emp_id
------------	--------	------	--------	---------	--------

```

mysql> create table Couriers(
  -> Courier_id varchar(20),
  -> Docket varchar(20),
  -> Name varchar(30),
  -> Cus_id varchar(20),
  -> Ship_id varchar(20),
  -> Emp_id varchar(20),
  -> PRIMARY KEY(Cus_id, Ship_id, Emp_id, Courier_id),
  -> FOREIGN KEY(Cus_id) REFERENCES Customer(Cus_id),
  -> FOREIGN KEY(Ship_id) REFERENCES Shipment(Ship_id),
  -> FOREIGN KEY(Emp_id) REFERENCES Employee(Emp_id)
  -> );
Query OK, 0 rows affected (0.04 sec)

mysql> desc Couriers;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Courier_id  | varchar(20)   | NO   | PRI | NULL    |       |
| Docket     | varchar(20)   | YES  |     | NULL    |       |
| Name       | varchar(30)   | YES  |     | NULL    |       |
| Cus_id     | varchar(20)   | NO   | PRI | NULL    |       |
| Ship_id    | varchar(20)   | NO   | PRI | NULL    |       |
| Emp_id     | varchar(20)   | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+

```

COMMENTS

Comment_id	Title	Rating	Date	Comment	Ship_id
------------	-------	--------	------	---------	---------

```

mysql> create table Comments(
  -> Comment_id varchar(20),
  -> Title varchar(20),
  -> Rating int(10),
  -> Date date not null,
  -> Comment varchar(40),
  -> Ship_id varchar(20),
  -> PRIMARY KEY(Comment_id,Ship_id),
  -> FOREIGN KEY(Ship_id) REFERENCES Shipment(Ship_id)
  -> );
Query OK, 0 rows affected, 1 warning (0.03 sec)

mysql> desc Comments;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Comment_id | varchar(20)   | NO   | PRI | NULL    |       |
| Title       | varchar(20)   | YES  |     | NULL    |       |
| Rating      | int           | YES  |     | NULL    |       |
| Date        | date          | NO   |     | NULL    |       |
| Comment     | varchar(40)   | YES  |     | NULL    |       |
| Ship_id     | varchar(20)   | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

```

DATA COLLECTION:

- i. LOGIN:
 - a) Login_id (primary key)
 - b) Password
 - c) Email (unique key)
- ii. EMPLOYEES:
 - a) Emp_id (primary key)
 - b) Name
 - c) Mobile
 - d) Office_id (foreign key)
 - e) Login_id (foreign key)
- iii. CUSTOMER:
 - a) Cus_id (primary key)
 - b) Name
 - c) Email (unique key)
 - d) Mobile
 - e) Emp_id (foreign key)
- iv. OFFICE:
 - a) Office_id (primary key)
 - b) Name
 - c) Address
 - d) Phone
- v. COURIER:
 - a) Courier_id (primary key)
 - b) Ship_id (foreign key)
 - c) Name
 - d) Docket

- e) Office_id (foreign key)
- f) Emp_id (foreign key)

vi. SHIPMENT:

- a) Ship_id (primary key)
- b) From_city
- c) To_city
- d) Weight
- e) Date
- f) Emp_id (foreign key)

vii. COMMENTS:

- a) Ship_id (foreign key)
- b) Rating
- c) Title
- d) Comment
- e) Comment_id (Primary key)

viii. PAYMENT:

- a) Payment_id (Primary key)
- b) Amout
- c) Date
- d) Cus_id(foreign key)

RELATIONSHIP TYPE:

➤ 1-1

- Login & Employee
- Shipment & Comment
- Customer & payment

➤ 1:N or N:1

- Employee & Customer
- Employee & Office
- Employee & Courier
- Customer & Shipment

Functional Requirements:

- Employees are the Administrators.
- System must allow Employee to login if they enter the correct login id and password.
- If the Employee is new to the website the he/she has to enter his/her Name, Mobile Numbers, his/her Office Id, and Email.
- There are three roles available according to his/her management: Customers, Offices and Couriers.

- I. Customer can track his/her shipments with logging in through Name, Email Id, and Cus_Id. He can view contents of Shipment table and can leave comments with respective Courier_Id.
- II. Offices used to store Name, Address and Phone Numbers of the respective offices located regionally and used for close monitoring of courier packages in case they get lost.
- III. Courier used for monitoring of the packages.
- IV. Offices can add new couriers.

Removal of old data:

- Deletion of the data after a certain time interval.
- Deletion of customer account if they want to exit using services of the courier services.
- Deletion of Employee details if he/she is no longer in service.
- Deletion of Office data if office is shut down.

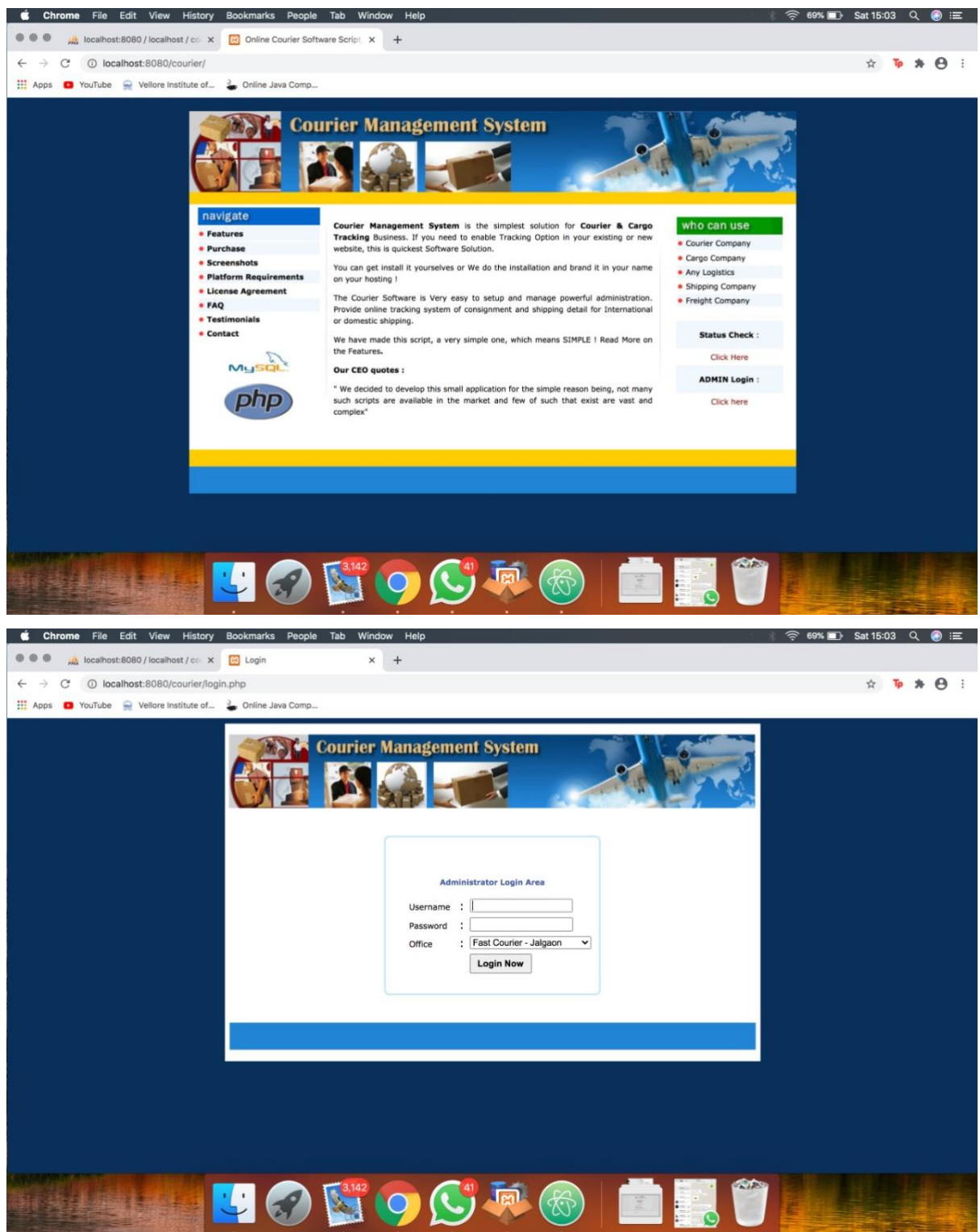
Modification of existing data:

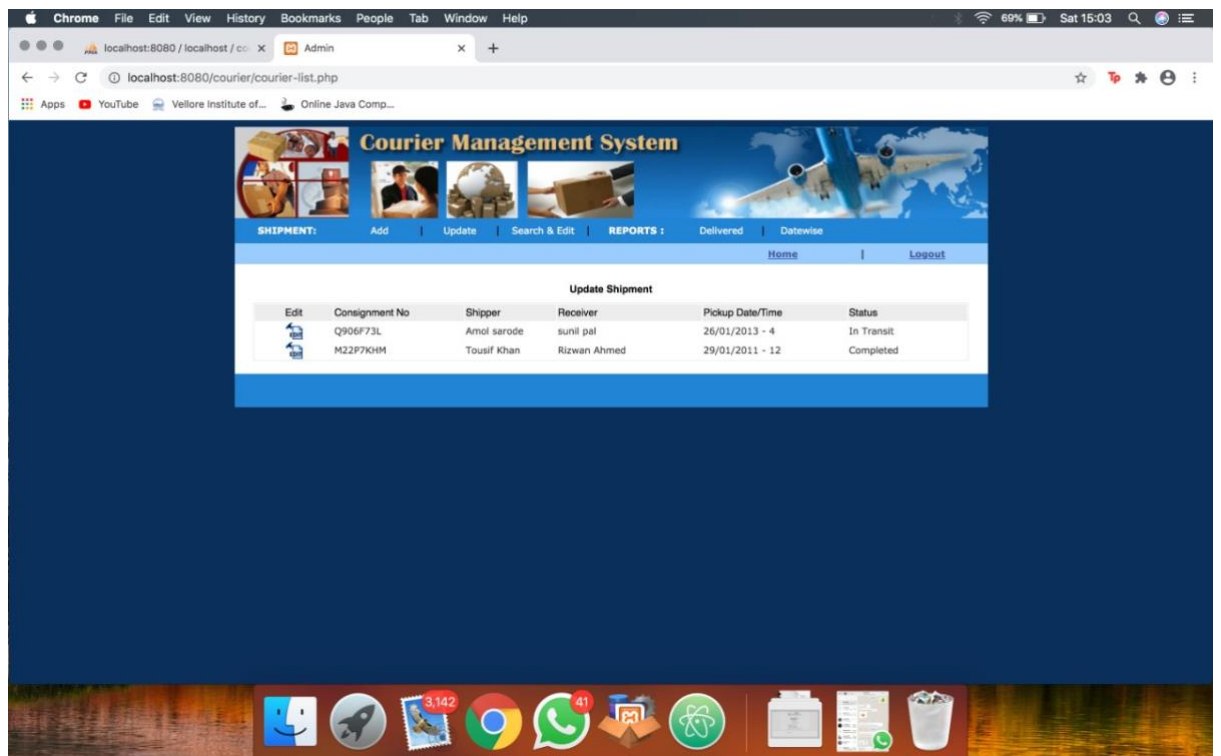
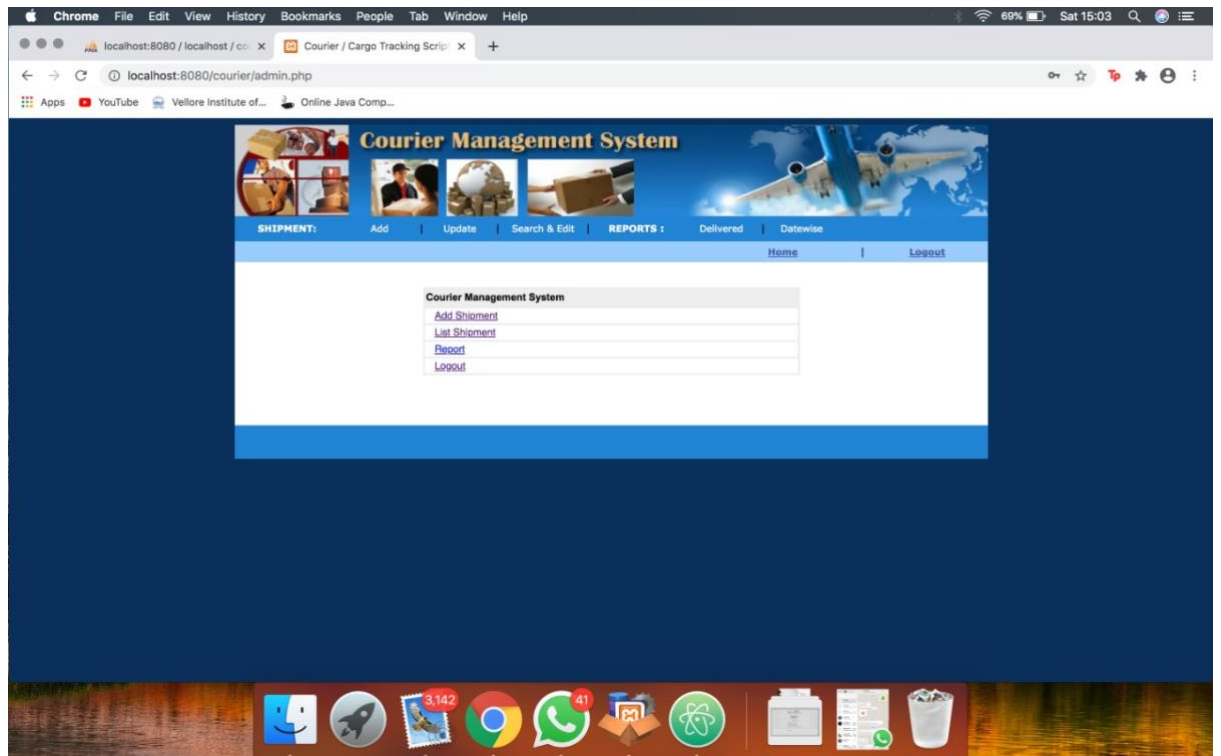
- Employee can modify the courier information.
- Customers and Employees can modify their Passwords.
- Admin has privileges to add a user directly by providing details.
- Employee can update shipment status.

Data Retrieval:

- The Customer can view of all shipments sent.
- The Admin can view all the offices' details and customer data.
- The Employee can view all the customer data.
- The Employee has access to all shipment intel.

7. Snapshot:





Chrome File Edit View History Bookmarks People Tab Window Help

localhost:8080 / localhost / c... x Admin

localhost:8080/courier/add-courier.php

Apps YouTube Vellore Institute of... Online Java Comp...

Home Logout

Add Shipment

Shipper Info :

Shipper Name :

Phone :

Address :

Receiver Info :

Receiver Name :

Phone :

Address :

Shipment info :

Consignment No :

Type of Shipment :

Weight : (kg)

Invoice no :

Qty :

Booking Mode :

Total freight :

Mode :

Dept time :

Chrome File Edit View History Bookmarks People Tab Window Help

localhost:8080 / localhost / c... x Admin

localhost:8080/courier/add-courier.php

Apps YouTube Vellore Institute of... Online Java Comp...

Phone :

Address :

Shipment info :

Consignment No :

Type of Shipment :

Weight : (kg)

Invoice no :

Qty :

Booking Mode :

Total freight :

Mode :

Dept time :

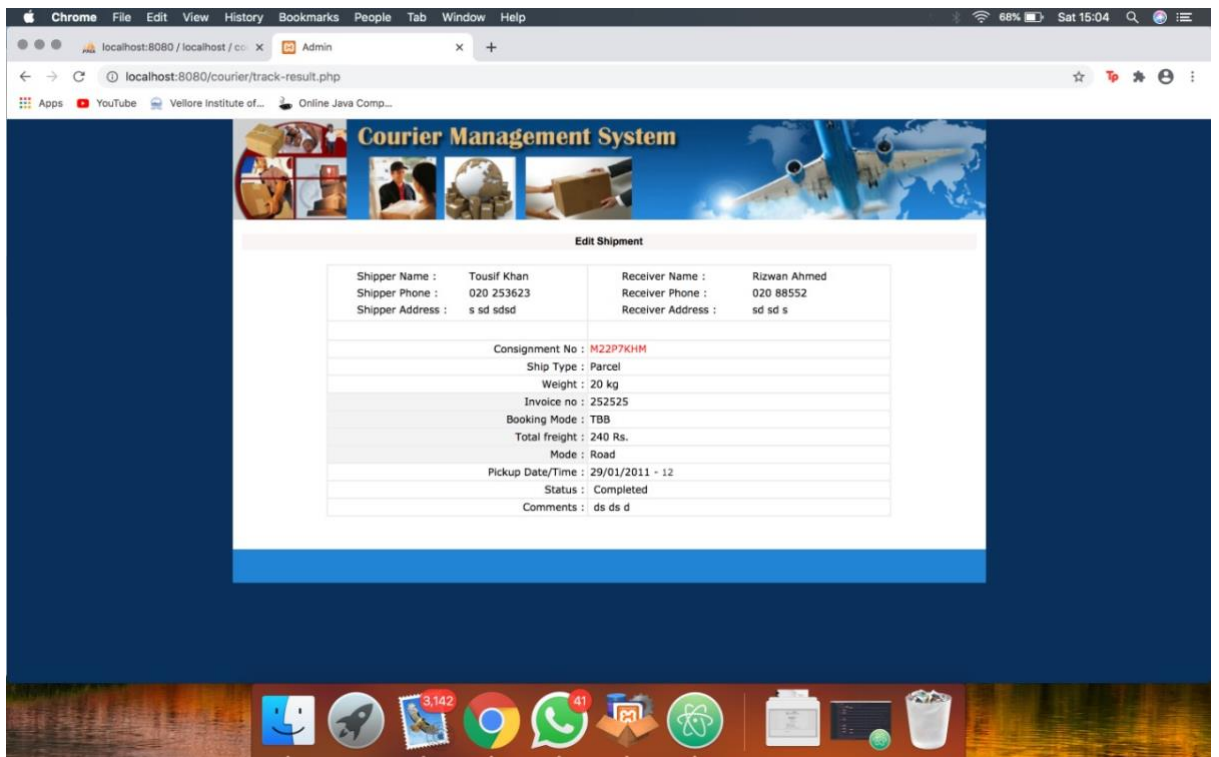
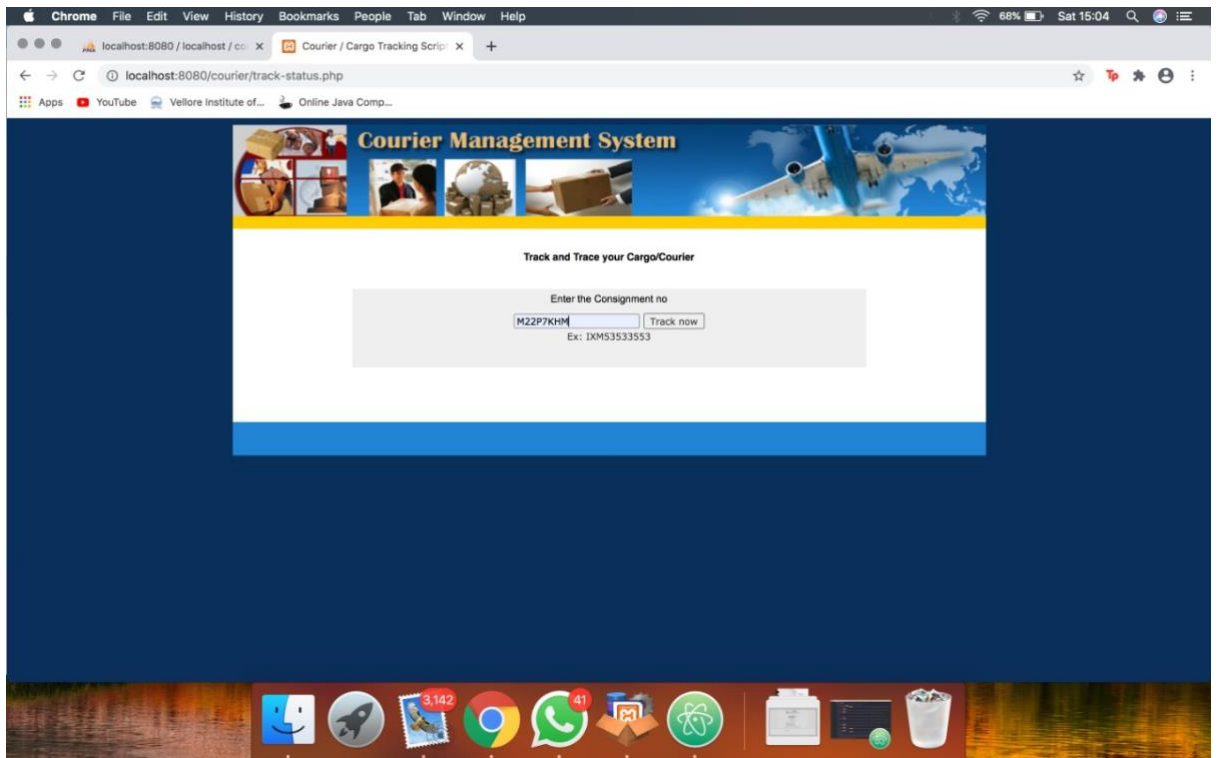
Destination Office :

Pickup Date :

Pickup Time :

Status :

Comments :



Database.php

```
index.php  database.php
1  <?php
2
3
4  // database connection config
5  $dbHost = 'localhost';
6  $dbUser = 'root';
7  $dbPass = '';
8  $dbName = 'courier';
9
10 $dbConn = mysqli_connect ($dbHost, $dbUser, $dbPass) or die ('MySQL connect failed. ' . mysqli_error($dbConn));
11 mysqli_select_db($dbConn,$dbName) or die('Cannot select database. ' . mysqli_error($dbConn));
12
13 function dbQuery($sql)
14 {
15     $dbHost = 'localhost';
16     $dbUser = 'root';
17     $dbPass = '';
18     $dbName = 'courier';
19
20     $dbConn = mysqli_connect ($dbHost, $dbUser, $dbPass) or die ('MySQL connect failed. ' . mysqli_error($dbConn));
21     mysqli_select_db($dbConn,$dbName) or die('Cannot select database. ' . mysqli_error($dbConn));
22
23     $result = mysqli_query($dbConn,$sql) or die(mysqli_error($dbConn));
24
25     return $result;
26 }
27
28 function dbAffectedRows()
29 {
30     global $dbConn;
31
32     return mysqli_affected_rows($dbConn);
33 }
34
35 function dbFetchArray($result, $resultType = MYSQL_NUM) {
36     return mysqli_fetch_array($result, $resultType);
37 }
38
39 function dbFetchAssoc($result)
40 {
41     return mysqli_fetch_assoc($result);
42 }
43
44 function dbFetchRow($result)
45 {
46     return mysqli_fetch_row($result);
47 }
48
49 function dbFreeResult($result)
50 {
51     return mysqli_free_result($result);
52 }
53
54 function dbNumRows($result)
55 {
56     return mysqli_num_rows($result);
57 }
58
59 function dbSelect($dbName)
60 {
61     return mysqli_select_db($dbConn,$dbName);
62 }
63
64 function dbInsertId()
65 {
66     return mysqli_insert_id($dbConn);
67 }
68
69 ?>
```

```
index.php  database.php
30  global $dbConn;
31
32  return mysqli_affected_rows($dbConn);
33 }
34
35 function dbFetchArray($result, $resultType = MYSQL_NUM) {
36     return mysqli_fetch_array($result, $resultType);
37 }
38
39 function dbFetchAssoc($result)
40 {
41     return mysqli_fetch_assoc($result);
42 }
43
44 function dbFetchRow($result)
45 {
46     return mysqli_fetch_row($result);
47 }
48
49 function dbFreeResult($result)
50 {
51     return mysqli_free_result($result);
52 }
53
54 function dbNumRows($result)
55 {
56     return mysqli_num_rows($result);
57 }
58
59 function dbSelect($dbName)
60 {
61     return mysqli_select_db($dbConn,$dbName);
62 }
63
64 function dbInsertId()
65 {
66     return mysqli_insert_id($dbConn);
67 }
68
69 ?>
```

Index.php

```

1 <!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
2 <html>
3 <head>
4 <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
5 <title>Online Courier Software Script, Cargo Tracking Module in PHP, MySQL in India</title>
6 <meta name="description" content="A Simple Solution to enable Tracking in your Existing Website.">
7 <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1">
8 <link href="css/aalpha.css" rel="stylesheet" type="text/css">
9
10 <style type="text/css">
11 <!--
12 .style1 {color: #CCCCC;}
13 -->
14 </style>
15 </head>
16
17 <body>
18 <table border="0" cellpadding="0" cellspacing="0" align="center" width="900" style="padding-top:20px;">
19 <tbody><tr>
20 <td width="900"></td>
21 </tr>
22 <tr>
23 <td><table border="0" cellpadding="0" cellspacing="0" width="900">
24 <tbody><tr>
25 <td bgcolor="#FFCC00">&nbsp;</td>
26 </tr>
27 </tbody></table></td>
28 </tr>
29 </tbody></table>
30 <table border="0" cellpadding="0" cellspacing="0" align="center" width="900">
31 <tbody><tr>
32 <td bgcolor="#FFFFFF" width="900"><table border="0" align="center" width="99%">
33 <tbody><tr>

```

```

67
Atom File Edit View Selection Find Packages Window Help
index.php -- ~/bitnami/stackman/machines/kamp/volumes/root/htdocs/courier
index.php
30 <table border="0" cellpadding="0" cellspacing="0" align="center" width="900">
31 <tbody><tr>
32 <td bgcolor="#FFFFFF" width="900"><table border="0" align="center" width="99%">
33 <tbody><tr>
34 <td width="22%"><table border="0" align="center" width="185">
35 <tbody><tr bgcolor="#FFFFFF">
36 <td class="aalpha" bgcolor="#0066CC" height="19" width="179"></td>
37 </tr>
38 <tr bgcolor="#FFFFFF">
39 <td class="aalpha" height="19"><strong> Features</strong></td>
40 </tr>
41 <tr bgcolor="#FFFFFF">
42 <td class="aalpha"><strong> Purchase </strong></td>
43 </tr>
44 <tr>
45 <td class="aalpha"><strong> Screenshots</strong></td>
46 </tr>
47 <tr bgcolor="#FFFFFF">
48 <td class="aalpha"><strong> Platform Requirements </strong></td>
49 </tr>
50 <tr>
51 <td class="aalpha"><strong> License Agreement </strong></td>
52 </tr>
53 <tr bgcolor="#FFFFFF">
54 <td class="aalpha"><strong> FAQ</strong></td>
55 </tr>
56 <tr bgcolor="#FFFFFF">
57 <td class="aalpha" bgcolor="#FFFFFF"><strong> Testimonials</strong></td>
58 </tr>
59 <tr bgcolor="#FFFFFF">
60 <td class="aalpha" bgcolor="#FFFFFF"><strong> Contact</strong></td>
61 </tr>
62 </tbody></table>
63 <tr align="center"><td align="center" colspan="2" height="21" width="900">

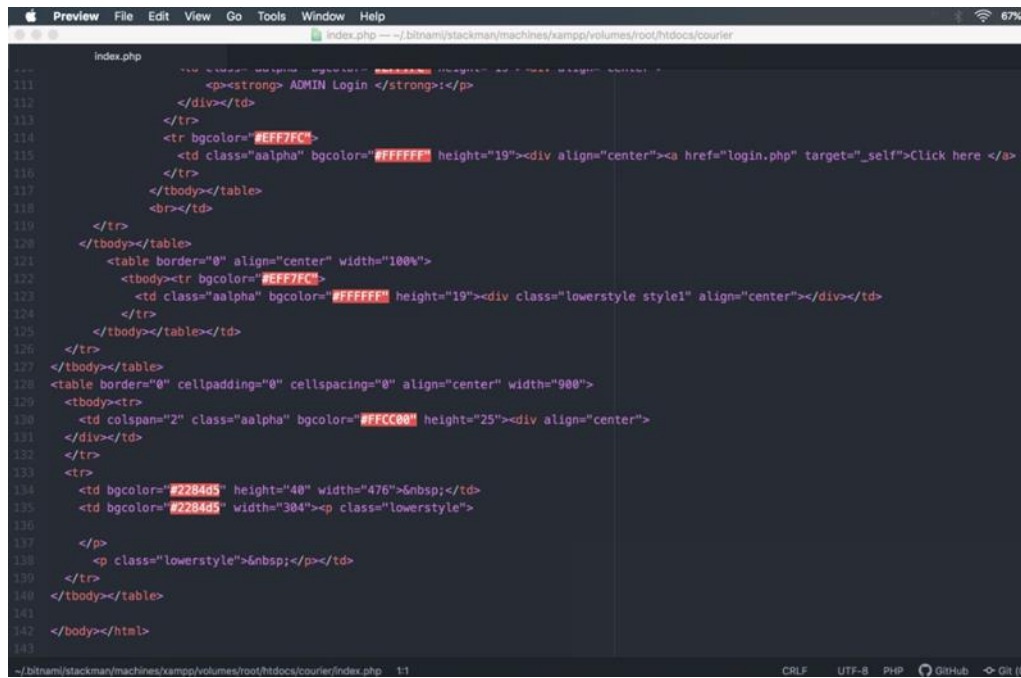
```

```
Preview File Edit View Go Tools Window Help
index.php -- ~/blinami/stackman/machines/xampp/volumes/root/htdocs/courier

61 index.php
62 </td>
63 </tbody></table>
64 <p align="center"></p>
65 <p align="center"></p><!-- #EndLibraryItem --></td>
66 <td height="221" width="14"></td>
67 <td class="aalpha" width="54"><p class="navi" align="justify"><strong>Courier Management System </strong> is the simplest solution for
68 <p class="navi" align="justify">You can get install it yourselves or We do the installation and brand it in your name on your hosting
69 <p class="navi" align="justify">The Courier Software is Very
70 <p class="navi" align="justify">setup and manage powerful administration. Provide online
71 <p class="navi" align="justify">ng system of consignment and shipping detail for International or
72 <p class="navi" align="justify">ic shipping. </p>
73 <p class="navi" align="justify">We have made this script, a very simple one, which means SIMPLE ! Read More on the Features<strong>
74 <p class="navi" align="justify"><strong>Our CEO quotes : </strong></p>
75 <p class="navi" align="justify">" We decided to develop this
76 application for the simple reason being, not many such scripts are
77 able in the market and few of such that exist are vast and
78 </p></td>
79 <td class="aalpha" width="24"><div align="center"></div></td>
80 <td class="aalpha" width="21"><table border="0" align="center" width="89">
81 <tbody><tr bgcolor="#FFFFFF">
82 <td class="aalpha" bgcolor="#008C00" height="19"></td>
83 </tr>
84 <tr bgcolor="#FFFFFF">
85 <td class="aalpha" height="19"> Courier Company </td>
86 </tr>
87 <tr>
88 <td class="aalpha"> Cargo Company </td>
89 </tr>
90 <tr bgcolor="#FFFFFF">
91 <td class="aalpha"> Any Logistics </td>
92 </tr>
93 <tr>
94 <td class="aalpha"> Shipping Company </td>
95 </tr>
96 </tbody></table>
97 </td>
98 </tr>
99 </tbody></table>
100 <br>
101 <table border="0" align="center" width="90">
102 <tbody><tr bgcolor="#FFFFFF">
103 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center">
104 <p><strong>Status Check </strong></p>
105 </div></td>
106 </tr>
107 <tr bgcolor="#FFFFFF">
108 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center"><a href="track-status.php" target="_self">Click Here </a> </div>
109 </tr>
110 <tr bgcolor="#FFFFFF">
111 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center">
112 <p><strong>ADMIN Login </strong></p>
113 </div></td>
114 </tr>
115 <tr bgcolor="#FFFFFF">
116 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center"><a href="login.php" target="_self">Click here </a> </div></td>
117 </tr>
118 </tbody></table>
119 <br>
120 <tbody></table>
121 <table border="0" align="center" width="100">
122 <tbody><tr bgcolor="#FFFFFF">
123 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div class="lowerstyle style1" align="center"></div></td>
124 </tr>
125 </tbody></table></td>
126 </tr>
127 </tbody></table>
```

```
Preview File Edit View Go Tools Window Help
index.php -- ~/blinami/stackman/machines/xampp/volumes/root/htdocs/courier

94 </tr>
95 <tr bgcolor="#FFFFFF">
96 <td class="aalpha"> Freight Company </td>
97 </tr>
98 </tbody></table>
99 <br>
100 <table border="0" align="center" width="90">
101 <tbody><tr bgcolor="#FFFFFF">
102 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center">
103 <p><strong>Status Check </strong></p>
104 </div></td>
105 </tr>
106 <tr bgcolor="#FFFFFF">
107 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center"><a href="track-status.php" target="_self">Click Here </a> </div>
108 </tr>
109 <tr bgcolor="#FFFFFF">
110 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center">
111 <p><strong>ADMIN Login </strong></p>
112 </div></td>
113 </tr>
114 <tr bgcolor="#FFFFFF">
115 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center"><a href="login.php" target="_self">Click here </a> </div></td>
116 </tr>
117 </tbody></table>
118 <br>
119 </tr>
120 <tbody></table>
121 <table border="0" align="center" width="100">
122 <tbody><tr bgcolor="#FFFFFF">
123 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div class="lowerstyle style1" align="center"></div></td>
124 </tr>
125 </tbody></table></td>
126 </tr>
127 </tbody></table>
```

```
111 <p><strong> ADMIN Login </strong>:</p>
112 </div></td>
113 </tr>
114 <tr bgcolor="#FF7FC0">
115 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div align="center"><a href="login.php" target="_self">Click here </a>
116 </tr>
117 </tbody></table>
118 <br></td>
119 </tr>
120 </tbody></table>
121 <table border="0" align="center" width="100%">
122 <tbody><tr bgcolor="#FF7FC0">
123 <td class="aalpha" bgcolor="#FFFFFF" height="19"><div class="lowerstyle style1" align="center"></div></td>
124 </tr>
125 </tbody></table></td>
126 </tr>
127 </tbody></table>
128 <table border="0" cellpadding="0" cellspacing="0" align="center" width="900">
129 <tbody><tr>
130 <td colspan="2" class="aalpha" bgcolor="#FFCC00" height="25"><div align="center">
131 </div></td>
132 </tr>
133 <tr>
134 <td bgcolor="#228445" height="40" width="476">&nbsp;</td>
135 <td bgcolor="#228445" width="304"><p class="lowerstyle">
136 </p>
137 <p class="lowerstyle">&nbsp;</p></td>
138 </tr>
139 </tbody></table>
140 </tbody></table>
141 </td>
142 </body></html>
143
```

7. Conclusion and Future Work

7.1 Conclusion:

The entire project has been developed and deployed as per the requirements stated by the user, it is found to be bug free as per the testing standards that is implemented. Any specification-untraced errors will be concentrated in the coming versions, which are planned to be developed in near future. The system at present does not take care off the money payment methods, as the consolidated constructs need SSL standards and are critically to be initiated in the first face, the application of the credit card transactions is applied as a developmental phase in the coming days. The system needs more elaborative technicality for its inception and evolution

7.2 Future Work:

There is always a room for improvement in any software package. The important thing is that the system should flexible enough for further modifications. Considering this important factor, the system is designed such a way that the provisions are given for further enhancements.

8. REFERENCES

1. “A New Express Management System Based on Encrypted QR Code” 2015 8th International Conference on Intelligent Computation Technology and Automation (ICICTA)
2. S AMMULU, K MADHU SUDHAN REDDY “Online courier management system” Unique Paper ID: 146076 Publication Volume & Issue: Volume 4, Issue 11
3. Steinglass, Matt (2011). "TNT Express to focus on emerging markets". Financial Times. Retrieved 26 May 2011
4. Aaron (2008). “ Relevance of courier services” Tamaza Publishing Co. Ltd., Zaria-Nigeria