

# DATABASE MANAGEMENT SYSTEM

## ASSIGNMENT- 4

UE19CS301

**Team - 24**

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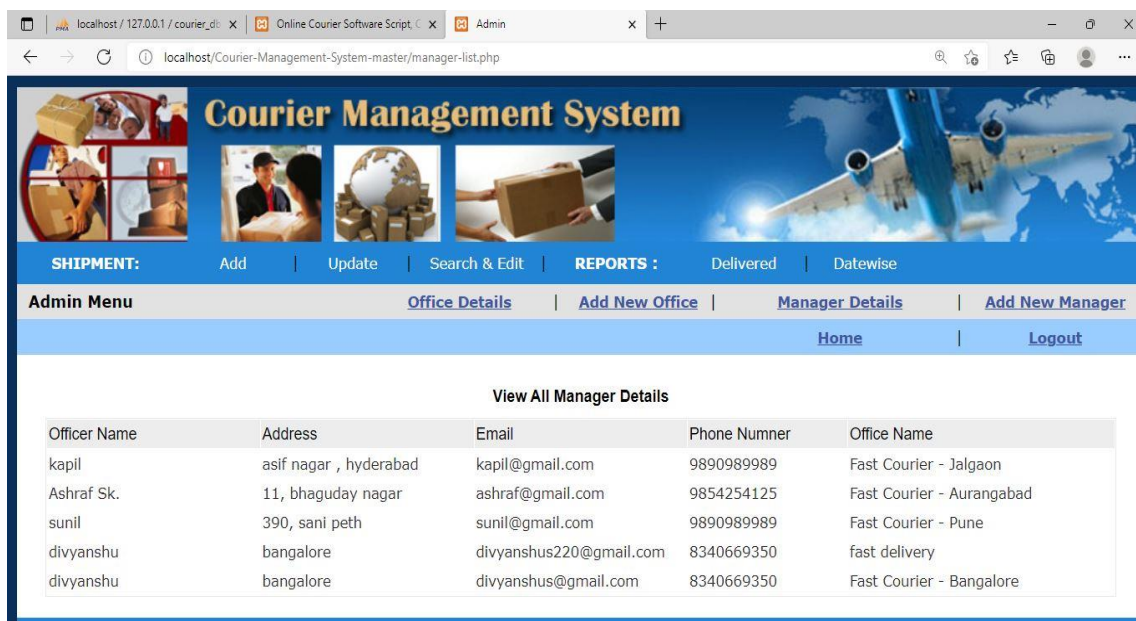
### **Dependencies installed for the database connectivity:**

The front-end of our database was implemented using PHP , which is a popular front-end framework which uses CSS and JavaScript-based design templates.

We utilized MYSQL to structure our database and the required dependencies used to connect the front-end to the back-end was phpMyAdmin, which is a free and open-source administration tool used for MYSQL .

### **Execution on the frontend with sample queries:**

#### **Viewing all Manager Details:**




Officer Name	Address	Email	Phone Numner	Office Name
kapil	asif nagar , hyderabad	kapil@gmail.com	9890989989	Fast Courier - Jalgaon
Ashraf Sk.	11, bhaguday nagar	ashraf@gmail.com	9854254125	Fast Courier - Aurangabad
sunil	390, sani peth	sunil@gmail.com	9890989989	Fast Courier - Pune
divyanshu	bangalore	divyanshus220@gmail.com	8340669350	fast delivery
divyanshu	bangalore	divyanshus@gmail.com	8340669350	Fast Courier - Bangalore

## Adding New Office Manager Details:

localhost / 127.0.0.1 / courier\_db X Online Courier Software Script X Admin X +

localhost/Courier-Management-System-master/add-office.php



### Courier Management System

**SHIPMENT:** Add | Update | Search & Edit | **REPORTS :** Delivered | Datewise

**Admin Menu** Office Details | Add New Office | Manager Details | Add New Manager  
Home | Logout

**Add New Office Manager**

**New Office Information :**

Office Name :

Address :  \*

City :

Phone No. :


Office Timing :

Contact Person :

## Home Page:

localhost / 127.0.0.1 / courier\_db X Online Courier Software Script X Courier / Cargo Tracking Script X +

localhost/Courier-Management-System-master/admin.php



### Courier Management System

**SHIPMENT:** Add | Update | Search & Edit | **REPORTS :** Delivered | Datewise

**Admin Menu** Office Details | Add New Office | Manager Details | Add New Manager  
Home | Logout

Courier Management System
<a href="#">Add Shipment</a>
<a href="#">List Shipment</a>
<a href="#">Report</a>
<a href="#">Logout</a>

## Administrator Login Page:

The screenshot shows a web browser window with the URL `localhost/Courier-Management-System-master/login.php`. The page features a header with the title "Courier Management System" and a banner image of a courier plane. Below the header is a login form titled "Administrator Login Area". The form contains three input fields: "Username", "Password", and "Office" (a dropdown menu). The "Office" dropdown is currently set to "Fast Courier - Jalgaon". A "Login Now" button is located below the "Office" field.

**Courier Management System**

**Administrator Login Area**

Username :

Password :

Office : Fast Courier - Jalgaon

## Viewing all Office Details:

The screenshot shows the "View All Office Details" page. The page has a header with the title "Courier Management System" and a banner image of a courier plane. Below the header is a navigation bar with links for "SHIPMENT:" (Add, Update, Search & Edit) and "REPORTS:" (Delivered, Datewise). Below the navigation bar is an "Admin Menu" with links for "Office Details", "Add New Office", "Manager Details", and "Add New Manager". Below the "Admin Menu" is a table titled "View All Office Details" with columns for Office Name, Address, City, Phone Number, Office Timing, and Contact Person. The table contains four rows of data.

**Courier Management System**

**SHIPMENT:** Add | Update | Search & Edit | **REPORTS :** Delivered | Datewise

**Admin Menu** [Office Details](#) | [Add New Office](#) | [Manager Details](#) | [Add New Manager](#)

[Home](#) | [Logout](#)

**View All Office Details**

Office Name	Address	City	Phone Number	Office Timing	Contact Person
Fast Courier - Jalgaon	290, shani peth, jalgaon	Jalgaon	0257-25125	10.00 am - 9.00 pm	Shammi Kapur
Fast Courier - Aurangabad	20/12, sector 12, bhavani peth	Aurangabad	0245-858521	10.00 am - 9.00 pm	Amol Patil
Fast Courier - Pune	230, Fashion Street	pune	020-25125	10.00 am - 9.00 pm	Atul Nigade
fast delivery	bangalore	bangalore	456987453	10am-10pm	dev

## Adding New Office Manager Details:

27.0.0.1 / courier\_db x Online Courier Software Script, C x Admin x +

localhost/Courier-Management-System-master/add-new-officer.php

### Courier Management System

**SHIPMENT:** Add | Update | Search & Edit | **REPORTS :** Delivered | Datewise

**Admin Menu** | [Office Details](#) | [Add New Office](#) | [Manager Details](#) | [Add New Manager](#)

[Home](#) | [Logout](#)

#### Add New Office Manager

Office Manager info :

Manager Name :

Password :

Address :

Email :

Phone No. :

Office Name :

## Entering Consignment Number:

localhost / 127.0.0.1 / courier\_db x Online Courier Software Script, C x Admin x +

localhost/Courier-Management-System-master/search-edit.php

### Courier Management System

**SHIPMENT:** Add | Update | Search & Edit | **REPORTS :** Delivered | Datewise

**Admin Menu** | [Office Details](#) | [Add New Office](#) | [Manager Details](#) | [Add New Manager](#)

[Home](#) | [Logout](#)

#### Enter Consignment Number

Key in the Shipment Number to MODIFY the data. This is helpful if you have made spelling errors while adding the shipment.

Enter Consignment number



## Updating Shipment Details:

localhost / 127.0.0.1 / courier\_db x Online Courier Software Script, C x Admin x +

localhost/Courier-Management-System-master/courier-list.php




**Courier Management System**

SHIPMENT: Add | Update | Search & Edit | REPORTS : Delivered | Datewise

Admin Menu Office Details | Add New Office | Manager Details | Add New Manager

Home | Logout

**Update Shipment**

Edit	Consignment No	Shipper	Receiver	Pickup Date/Time	Status
	8PKAT8T6	Shubham	Sakshi	08/12/2021 - 13:00pm	In Transit
	Q906F73L	Amol sarode	sunil pal	26/01/2013 - 4	In Transit
	M22P7KHM	Tousif Khan	Rizwan Ahmed	29/01/2011 - 12	Completed

0.0.1 / courier\_db x Online Courier Software Script, C x Admin x +

localhost/Courier-Management-System-master/delivered-list.php



**Courier Management System**

SHIPMENT: Add | Update | Search & Edit | REPORTS : Delivered | Datewise

Admin Menu Office Details | Add New Office | Manager Details | Add New Manager

Home | Logout

**Update Shipment**

Edit	Consignment No	Shipper	Receiver	Pickup Date/Time	Status
	2THBV8UM	Farzana Sk	Asif Khan	20/01/2011 - 12	Delivered
	Q1WWGIQP	Asif khan	munna bhai	29/01/2011 - 4	Delivered

0.0.1 / courier\_db x Online Courier Software Script, C x Admin x +

localhost/Courier-Management-System-master/datewise-list.php



**Courier Management System**

SHIPMENT: Add | Update | Search & Edit | REPORTS : Delivered | Datewise

Admin Menu Office Details | Add New Office | Manager Details | Add New Manager

Home | Logout


**Update Shipment**

Edit	Consignment No	Shipper	Receiver	Pickup Date/Time	Status
	8PKAT8T6	Shubham	Sakshi	08/12/2021 - 13:00pm	Delayed
	M22P7KHM	Tousif Khan	Rizwan Ahmed	29/01/2011 - 12	Completed

## Editing Shipment Details:

db x Online Courier Software Script, C x Admin x +

t/Courier-Management-System-master/edit-courier.php?cid=5



**SHIPMENT:** Add | Update | Search & Edit | **REPORTS :** Delivered | Datewise

**Admin Menu** | [Office Details](#) | [Add New Office](#) | [Manager Details](#) | [Add New Manager](#)

[Home](#) | [Logout](#)

**Edit Shipment**

Shipper Name :	Shubham	Receiver Name :	Sakshi
Shipper Phone :	7766916703	Receiver Phone :	9031141726
Shipper Address :	Pune	Receiver Address :	bangalore
Consignment No : <b>8PKAT8T6</b>			
Ship Type : Parcel			
Weight : 0.5 kg			
Invoice no : 112201			
Booking Mode : Paid			
Total freight : 30 Rs.			
Mode : Train			
Pickup Date/Time : 08/12/2021 - 13:00pm			
Status : In Transit			
Comments : sending important parcel			

**UPDATE STATUS**

New Location: **Fast Courier - Pune**


New Status: **Delayed** | [Marked this shipment as to be DELIVERED](#)

Comments:

## Tracking and Tracing the Courier:

localhost / 127.0.0.1 / courier\_db x Courier / Cargo Tracking Script in x Admin x +

localhost/Courier-Management-System-master/track-status.php



**Courier Management System**

**Track and Trace your Cargo/Courier**

Enter the Consignment no

Ex: IXM53533553

## Schema & Constraint Change Statement

- For the 'couriers' entity: **Source**, **Destination** and **dest\_ph** attributes were added.

**ALTER TABLE couriers ADD Source varchar(50);**

```
courier=# ALTER TABLE couriers ADD Source varchar(50);
ALTER TABLE
courier=# \c couriers;
FATAL:  database "couriers" does not exist
Previous connection kept
courier=# \d couriers;
```

Column	Type	Collation	Nullable	Default
cour_id	integer		not null	
shipment_id	integer		not null	
office_id	integer		not null	
courier_name	character varying(40)		not null	
destination	character varying(50)			
dest_ph	character varying(12)			
source	character varying(50)			

Indexes:

"couriers\_pkey" PRIMARY KEY, btree (cour\_id, courier\_name)

**ALTER TABLE couriers ADD Destination varchar(50);**

```
courier=# ALTER TABLE couriers ADD destination varchar(50);
ALTER TABLE
courier=# \d couriers;
```

Column	Type	Collation	Nullable	Default
cour_id	integer		not null	
shipment_id	integer		not null	
office_id	integer		not null	
courier_name	character varying(40)		not null	
dest_ph	character varying(12)			
source	character varying(50)			
destination	character varying(50)			

Indexes:

"couriers\_pkey" PRIMARY KEY, btree (cour\_id, courier\_name)

**ALTER TABLE couriers ADD dest\_ph varchar(12);**

```
courier=# ALTER TABLE couriers ADD dest_ph varchar(50);
ALTER TABLE
courier=# \d couriers;
```

Column	Type	Collation	Nullable	Default
cour_id	integer		not null	
shipment_id	integer		not null	
office_id	integer		not null	
courier_name	character varying(40)		not null	
source	character varying(50)			
destination	character varying(50)			
dest_ph	character varying(50)			

Indexes:

"couriers\_pkey" PRIMARY KEY, btree (cour\_id, courier\_name)

- For the 'customer' entity: **password** attribute was added

**ALTER TABLE customer ADD password varchar(255);**

```
courier=# ALTER TABLE customer ADD password varchar(50);
ALTER TABLE
courier=# \d customer;
```

Column	Type	Collation	Nullable	Default
cus_id	integer		not null	
fname	character varying(30)		not null	
minit	character varying(20)			
lname	character varying(20)			
cus_mobile	integer		not null	
cus_email	character varying(40)		not null	
cur_id	integer		not null	
ship_id	integer		not null	
password	character varying(50)			

```
Indexes:
    "customer_pkey" PRIMARY KEY, btree (cus_id)
```

- For the 'delivery' entity: **custname** and **courier\_id**(foreign key) attributes were added

**ALTER TABLE delivery ADD custname varchar(25);**

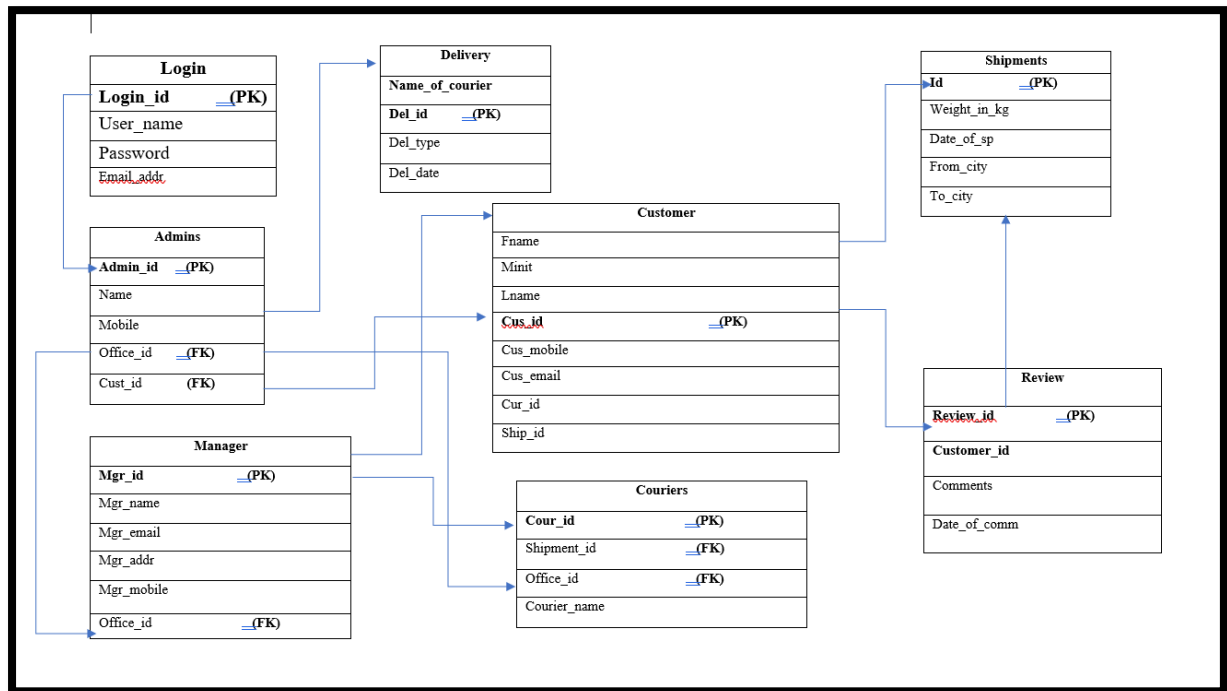
```
courier=# ALTER TABLE delivery ADD custname varchar(50);
ALTER TABLE
courier=# \d delivery;
```

Column	Type	Collation	Nullable	Default
name_of_courier	character varying(50)			
del_id	integer		not null	
del_type	character varying		not null	
del_date	date			
custname	character varying(50)			

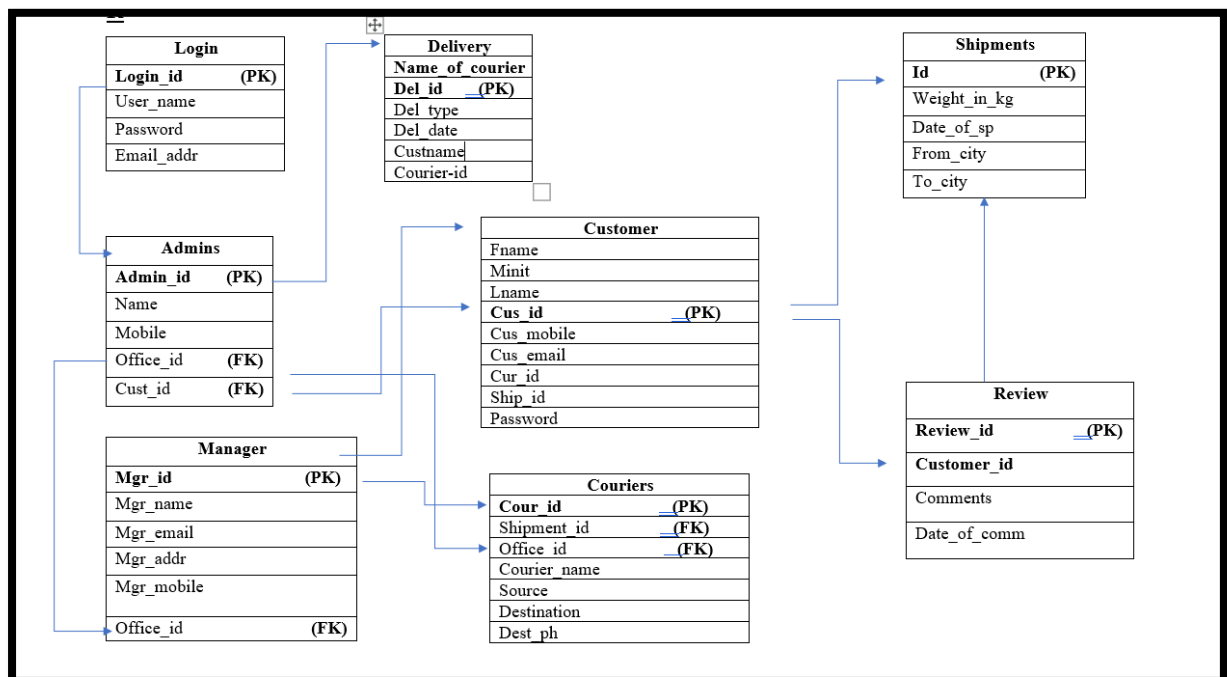
```
Indexes:
    "delivery_pkey" PRIMARY KEY, btree (del_id)
```



Before:



After:



## **Changes in Business/Application:**

Changes in the Application or expansion is to make working software available at cloud, so that customers can access and process it at all time.

**With the existing design of your database, if you have to migrate to any No-SQL variety, which one will be your choice? Why?**

If we have to migrate to a No-SQL variety then our preferred choice would be a document database. These databases store data in CSV,JSON, BSON, or XML formats. These documents can be retrieved and stored in a similar format as that of data objects used in applications which implies minimal requirement for translations. Document databases are known to be very flexible i.e. structuring and reworking the databases are per need, which not only makes it time efficient but also allows its developers to have full control over it.

Migration from Mysql to Postgresql:

Link : [enterprisedb.com/postgres-t-export-data-using-csv-files-postgresql](https://enterprisedb.com/postgres-t-export-data-using-csv-files-postgresql)

The most commonly used document database is POSTGRE SQL.

Following are a few key differences between MySQL and POSTGRE SQL:

- MySQL is a Relational Database Management System (RDBMS) and PostgreSQL is an object-relational Database Management System (ORDBMS). In Relational Database Models, the database is represented as a collection of relations. An ORDBMS has qualities of an RDBMS and in addition to that, it has several features of object-oriented management systems like objects, classes, and inheritance.
- PostgreSQL is ACID (Atomicity Consistency Isolation Durability) compliant while MySQL is not ACID-compliant. MySQL is ACID-compliant only with Inno DB (an ACID-compliant storage engine for MySQL) and NDB (Network Database) cluster engines.
- PostgreSQL has Multi-Version Concurrency Control (MVCC) which enables multiple users to work on a PostgreSQL database simultaneously. MySQL provides MVCC support only after using Inno DB.
- MySQL provides MySQL Workbench as a GUI tool, PostgreSQL provides PgAdmin.
- MySQL only supports standard data types (string, numeric, date, and time) while PostgreSQL supports advanced data types such as arrays, hstore, and user-defined data types.

**Contributions:**

Divyanshu Sharma : Front End

Navya .C : Schema and constraint change statement