

AHSANULLAH UNIVERSITY OF SCIENCE & TECHNOLOGY

Final Group Report On

"ASAP Courier Management System"

CSE 3104: DATABASE LAB

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Group: A2

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Introduction

Since the outbreak of the pandemic of Coronavirus, courier delivery services have become essential in everybody's lives. As this coronavirus pandemic prevention requires extreme social distancing, people cannot just go out and get their desired products from the physicals shops anymore. That is why we want to create a very well-managed courier delivery system, named ASAP Courier Management System.

The main aim of the project is to deliver an efficient Courier Management System that can connect customers and the Courier Service provider where customers register themselves and book for Courier Service using the system. The admin can view and distribute deliveries to the employees, add new employees or delete them. The status of the Parcel can be changed, which helps to determine the movement of the parcel. During the billing process, the system generates a unique tracking number for each package through which customers will be able to track their products.

The "ASAP Courier Management System" is designed with the aim to provide efficient courier service, accurate and exact information throughout all the branches, proper parcel distribution, location wise pricing, parcel tracking, and many more features to provide an efficient courier management system.

Objectives

The objective of the ASAP Courier Management System is to design an all one system that brings the administration, customers, and the employees together under one system.

The admin interface must be well functioned from where the admin can manage all the administration works that includes listing the employee of the organization, adding new employees, updating employees' information and remove any employee when needed. Besides, the admin will be able to overview all the customers, and their orders. The admin will also be able to assign orders to the specific employees to distribute the deliveries works, update the delivery status, manage all the payment related information, and overall manage a very well functioned database system.

The customer interface must be user-friendly and easy to understand. The customers can register to the delivery system, make pick-up requests, and view the delivery status and payment status of their orders. Besides, the customers will be able to view the overall orders and their paid and unpaid payments. They will also be able to submit payment information for their specific order when they have made the payment. Besides, with the specific tracking ID, the customer can track their orders from the moment the system accepts their order.

The employee interface will be designed in a very user-friendly way where the employees can check their assign orders, take orders, and deliver them systematically.

Overall, the ASAP Courier Management System will be an all in one solution to the courier management where the administration, customers, and the employees can have their desired courier service.

Project Description

The "ASAP Courier Management System" is designed as an all one system that brings the administration, customers, and the employees together under one system.

Types of Users

- Admin
- Customer
- Employee

Functions of Users

• Admin

In the Admin Interface, there are 6 main menus.

1. Profile:

The admin can view use personal information here.

2. Order Request:

When any customer makes pickup request, the request appears here in the database table for confirmation. Here the admin can accept the order by updating the Order Status or even Cancel the Order Request. The admin can also search some particular data in the table.

3. All Employee:

Here, all the information of employee are listed in the table. The admin can search any employee from the table by-

- o Employee Name
- o Employee Email
- Branch ID
- o Employee's Phone Number
- Employee's Salary
- Employee's Rank

The admin can also make advanced searches based on-

- o Name Starts With
- Name Ends With
- Name Contains
- Salary Range

The admin can add new employees. When the admin clicks on the add employee option, it takes him to a new menu where he can insert new employee information to the database.

4. All Orders:

Here the admin can view all orders. He can assign a specific employee to a specific order. He can also view the information of the customer based on her order ID. The employee can also update the order status as-

- Processing
- o Picked Up
- Arrived at Warehouse
- o Reached Hub
- On the Way to Delivery
- Delivered

5. Manage Payment:

Here the admin can view all the payment requests from the customers. He can check the payment information and update the payment status as Paid, Unpaid or Cancelled. He also assigns the tracking ID from here when a customer has submitted the proper payment information.

6. All Customers:

Here the admin can view all the details of the customers who have registered to this system. He can search the customers by-

- Customer Name
- Customer ID
- o Area
- City

Customer

Any customer can register to the system using proper information. After registering and logging in to the system, he will land on the customer interface.

In the Customer Interface, there are 6 main menus.

1. Orders:

In the Orders menu, there are 7 sub menus.

I. View All Orders:

View: Here the customer can view all his orders or also some specific orders such as-

- o Top 5 Orders
- o Top 10 Orders
- Top 50 Orders
- o Top 100 Orders
- o Top 50% Orders
- Last Order
- Second Last Order

Search: The customer can also search her orders by-

- o Order ID
- Order Date
- o Between some specific order IDs

Print: The customer can also print invoice of any of his order from this sub menu.

II. View Accepted Order Requests:

Here the customer can view all the orders that have been accepted by the administration.

The customer can also search her accepted orders by-

- Order ID
- Order Date

III. View Pending Order Requests:

Here the customer can view all the orders that have are pending approval by the administration. When a customer makes a pickup request, the request is shown here in the table until the admin accepts/rejects her order.

The customer can also search her pending orders by-

- o Order ID
- o Order Date

IV. View Complete Orders:

Here the customer can view all the orders that have been delivered

The customer can also search her delivered orders by-

- Order ID
- Order Date

V. View Pending Payment Orders:

Here the customer can view all the orders whose payments are pending. The customer can go to the payment menu directly from this sub menu if she wants to make a payment.

The customer can also search her orders here by-

- o Order ID
- Order Date

VI. View Complete Payments

Here the customer can view all the orders that have been paid.

The customer can also search her paid orders by-

- Order ID
- Order Date

VII. View Incomplete Orders

Here the customer can view all the orders that are yet to be delivered.

The customer can also search her accepted orders by-

Order ID

2. Track Order

Here the customer can track her order with the specific tracking id that has been assigned to the orders.

3. Request Pickup

Here the customer can make a new pickup request. Based on the location the system can calculate the cost of her delivery.

4. Make Payment

Here the customer submits the payment information with her TrxID for specific orders. When the admin checks all the payment information and find them appropriate, the order will be updated to "paid".

5. Dashboard

In the dashboard the customer can view-

- Number of Total Orders
- Number of Complete Orders
- Number of Pending Orders
- o Number of Orders Out for Delivery
- Total Paid Amount
- Total Unpaid Amount

6. Profile

In the profile, the customer can view her personal information.

Employee

In the Employee Interface, there are 4 main menus.

1. Profile

In the profile, the employee can view her personal information.

2. Order Requests

Here the employee can view all the orders that have been assigned to him and accept them.

3. Pending Delivery

Here the employee can view all the pending deliveries and also update the delivery status as-

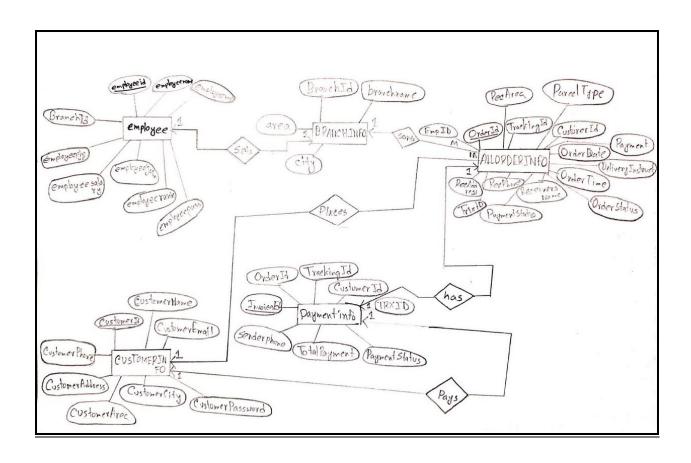
- Processing for Delivery
- Picked Up

- Reached Hub
- On the way to Delivery
- Completed

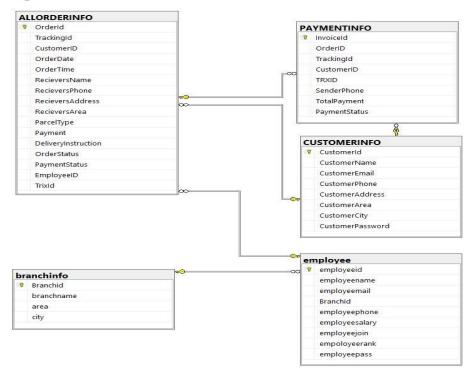
4. Complete Delivery

Here the employee can view all the completed orders.

ER Diagram



Relationship Schema



Software Used

Frontend: Java Swing

Backend: Java, MySQL

IDE: Netbeans IDE 12.4

JDBC Driver: mssql-jdbc-9.4.0.jre16.jar

Additional Software: Microsoft SQL Server Management Studio 18

Conclusion

The "ASAP Courier Management System" is designed as an all one system that brings the administration, customers, and the employees together under one system. It provides efficient courier service, accurate and exact information throughout all the branches, proper parcel distribution, location wise pricing, parcel tracking, and many more features to provide an efficient courier management system.