USER INTERFACES

Too many screenshots in this section. You can drop some of the figures because I will see the server pages during the demo.

Main Page:
The main page is the webpage every client or management will see when they access the server. The main page is responsible for differentiating which portal the end user will access. The main page divides between “Client” and “Management” into two distinct categories. Upon clicking on the “Client” category the end user will be directed to the “Client” login/signup portal. Or, upon clicking on the “Management” category the end user will be directed to the “Management” login portal.

Figure 3. Main Page

Client Module:

<u>Customer Login Page</u>

The customer login page which has two input boxes which requires customer’s email and password to login into the customer system of this DHL system. The customer will need to fill in their respective email and password if they fail to do so the system will show an error message. The error message “Email is required” if the customer fails to fill in their email or “Password is required” when the customer did not fill the password input box.

The email and password of the customers are linked to the variables in the customers table in the system’s database. The customer then can click on the “Login” button to be directed to the customer’s home screen. If the customer does not have an account initially, they can click the “Sign Up Now!” link to register as a new customer.

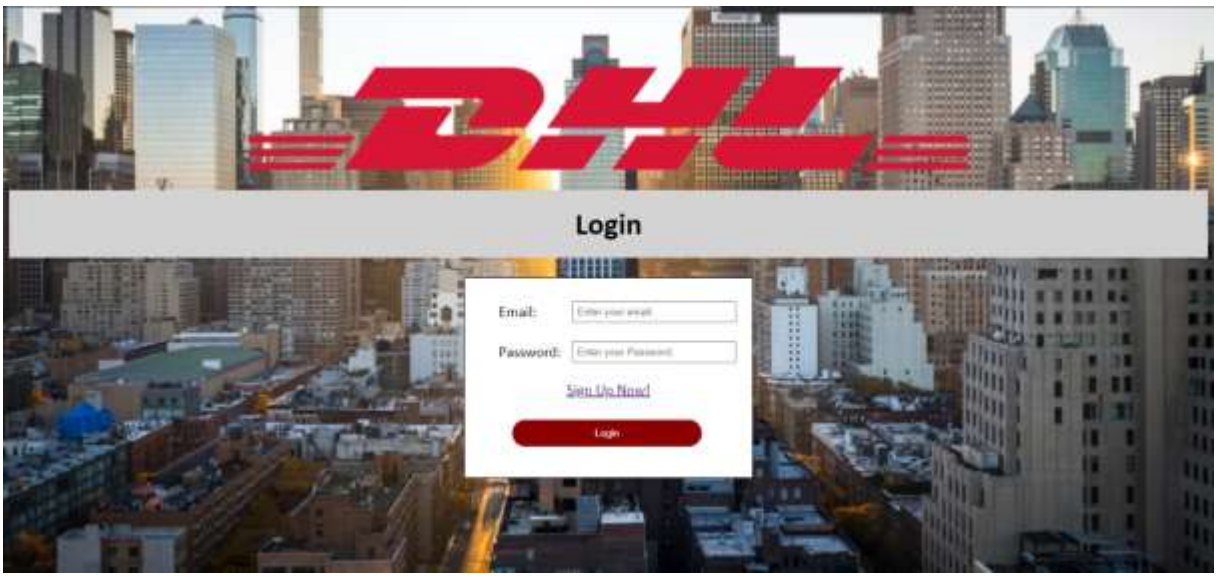


Figure 4. Customer Login Page

<u>Customer Sign Up/Registration Page</u>

The customer sign up page consists of several input boxes for the customers to fill up their personal details to register as a new customer to access into the DHL system as a customer. This page has a “Title” input box which will display options such as “None, Dr., Mr., Ms., Mrs., Miss.” for the customers to choose. Then they will have to fill in their “Name”, “Email”, “Phone”, “Company”, “Country”, “Postal Code”, “City”, “State”, “Address” and “Password”. If the customers fail to fill in any of the fields an error message “Please fill out this field.” will pop up to remind the customers to fill in all the fields in this page.

After clicking the “Signup” button the details that have been entered by the customers will be stored in the customers table in the system’s database. If the details that the customer has been stored in the database this page will show “Successfully Registered” message while “Registration Failed!” message will be shown if the customer's details were not stored in the database. The “Already have an account?” will bring the customers back to the login page for the customers to login into the customers system.

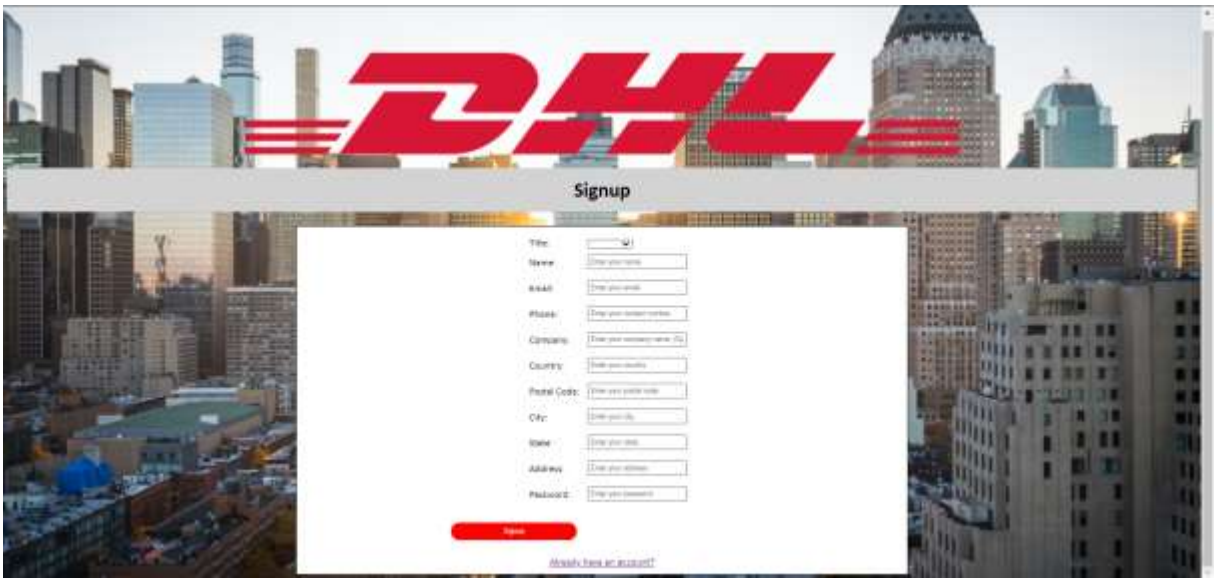


Figure 5. Customer Sign Up Page

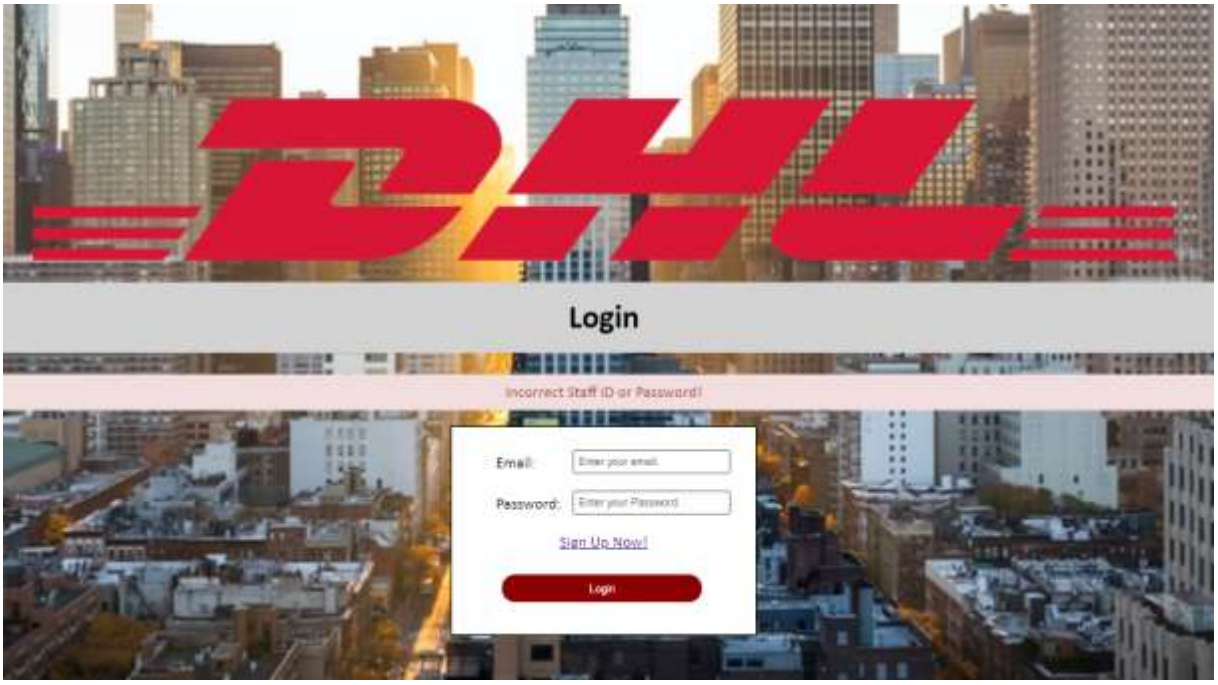


Figure 6. Incorrect credentials error message.

Customer Home Screen/Dashboard

The customers home screen or dashboard after the customer login into the customer's system. This page will display the menu table at the left side of this page. In the menu there are three links for the customers to click into and navigate to different pages. "Track My Delivery Status" and "Make Delivery Request" link is for the customer to make a request and check the delivery status. "Logout" link will logout the customer from the customer's system of the DHL system.

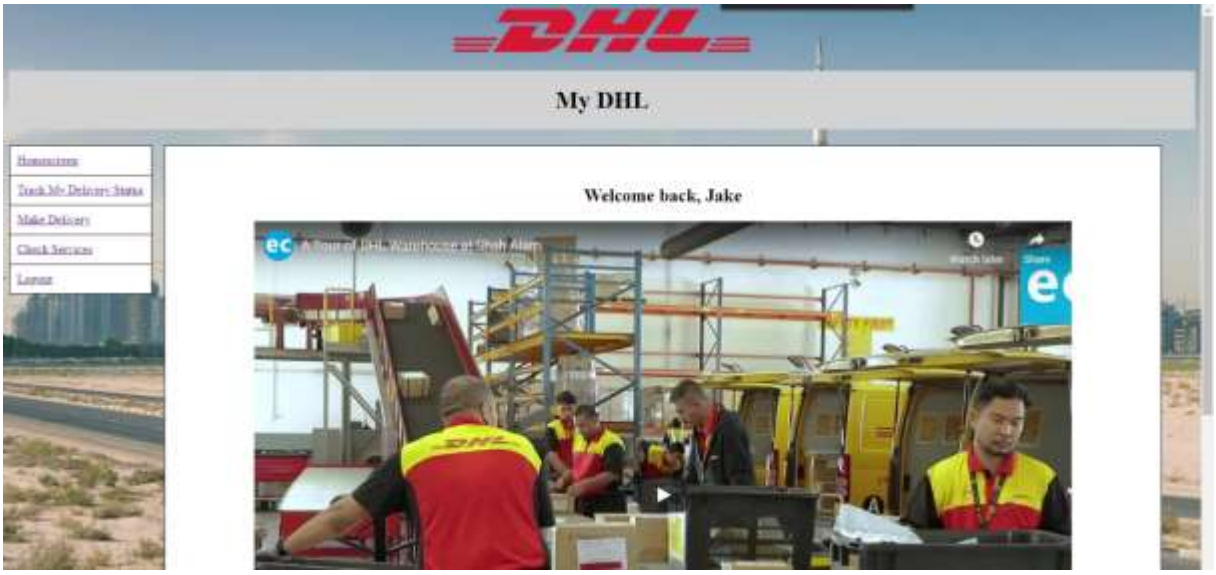


Figure 7. Customer Homescreen

Make Delivery Request

The service page where the customers will place their request for the delivery. In this page the customers can fill in the details of the client's details and the recipients details that the customers want to deliver their product to. The customer needs to fill in the input boxes to make the request. "Please fill out this field." error will pop up if the customer fails to fill out any input boxes that are provided in this page.

Once the customer clicks the "Submit" button the details that have been entered by the customer will be stored in the database with the "A new request of service has been added!" message in the request of the service server page. If the request is not added to the database "Insertion of new request failed." message will pop up in the server page. Upon the successful SQL insertion, the page will create a xml file and will create an xml dom object.

One important thing to note is the Capacity limit of 70 kilograms. If the end user enters a capacity exceeding 70 kilograms, the system will return a JavaScript alert message warning the end user that the capacity cannot exceed 70 kilograms and will not process the request.

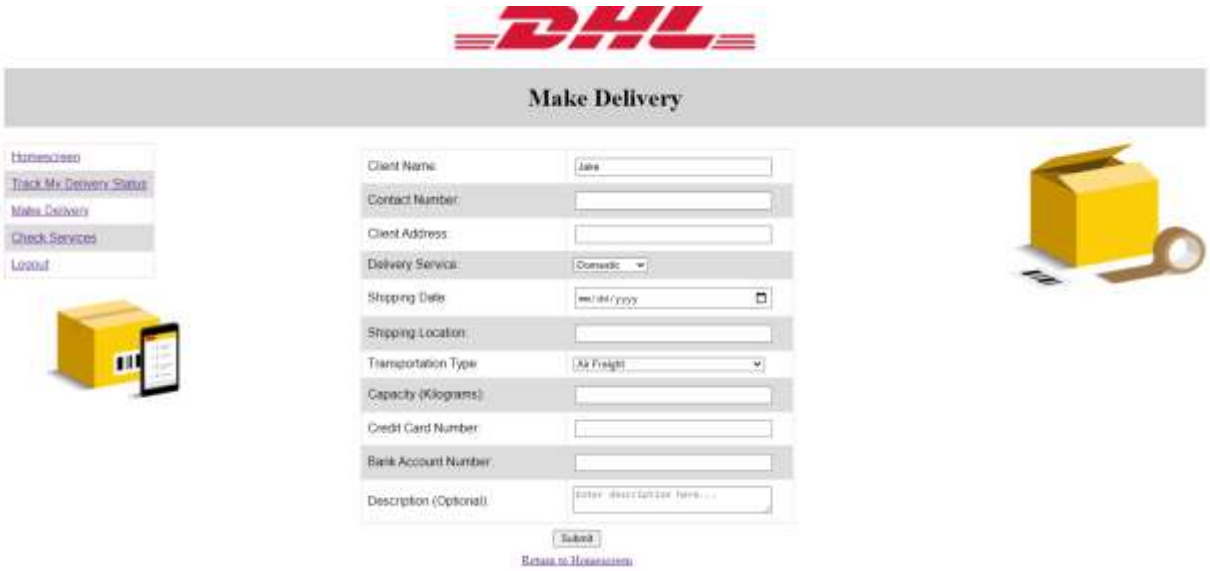


Figure 8. Request of Service Page

This XML file does not appear to have any style information associated with it. The document tree is shown below.


```
▼<CustomerInfo>
   <link type="text/css" rel="stylesheet" id="dark-mode-general-link"/>
   <link type="text/css" rel="stylesheet" id="dark-mode-custom-link"/>
   <style lang="en" type="text/css" id="dark-mode-custom-style"/>
  ▼<Customer>
     <name>Jake</name>
     <contact_number>1111</contact_number>
     <OriginAddress>SUBANG JAYA</OriginAddress>
     <ShippingLocation>KUL</ShippingLocation>
     <DeliveryService>Domestic</DeliveryService>
     <TransportType>Air Freight</TransportType>
     <Capacity>11</Capacity>
     <CreditCardNumber>1111</CreditCardNumber>
   </Customer>
  ▼<Customer>
     <name>Jake</name>
     <contact_number>2222</contact_number>
     <OriginAddress>2222</OriginAddress>
     <ShippingLocation>2222</ShippingLocation>
     <DeliveryService>Domestic</DeliveryService>
     <TransportType>Air Freight</TransportType>
     <Capacity>11</Capacity>
     <CreditCardNumber>2222</CreditCardNumber>
   </Customer>
  ▶<Customer>
   ...
   </Customer>
  ▶<Customer>
   ...
   </Customer>
  ▶<Customer>
   ...
   </Customer>
  ▶<Customer>
   ...
   </Customer>
 </CustomerInfo>
```


Figure 9. Preview of the XML file generated.

Figure 10. The confirmation page the client will receive upon successful transaction.

Track Delivery Request

The track delivery request allows the client to track their delivery orders based on the tracking number which they are provided each time the client makes an order.

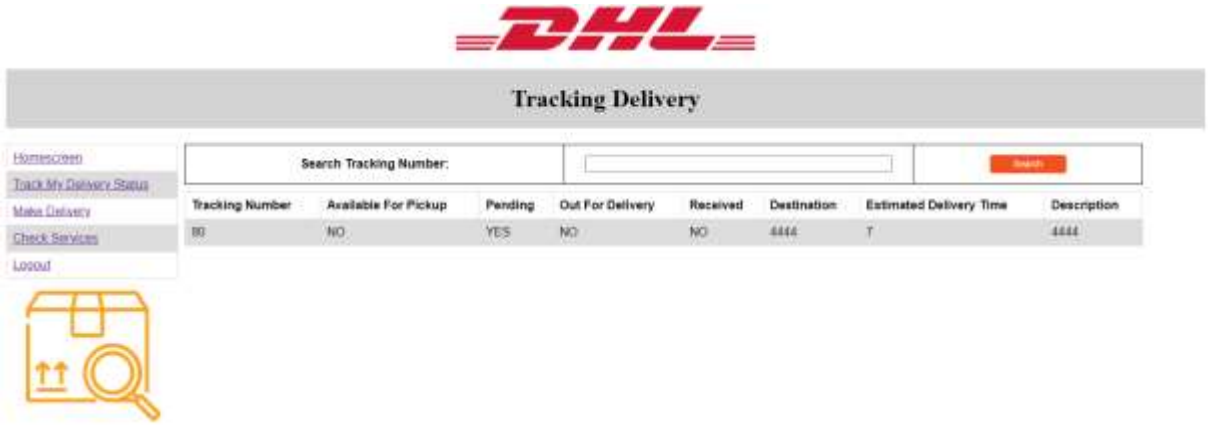


Figure 11. Checking order status by using tracking number.

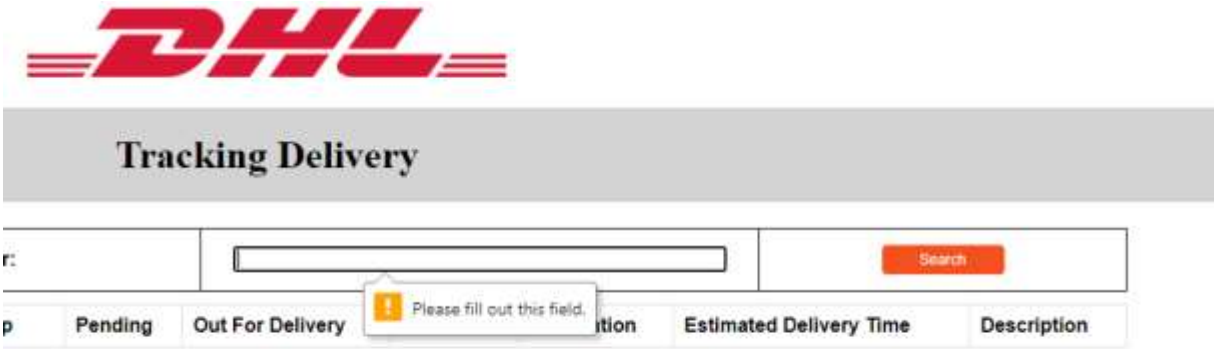


Figure 12. Input validation. End user must enter something to prevent the system from displaying all the records from other orders.

Check Services

The check services allows the client to check for all the services DHL offers as well as display important data such as estimated delivery time, foreign taxations, capacity and pricing for each transportation type.

Figure 13. By default, the system displays all the services DHL offers.

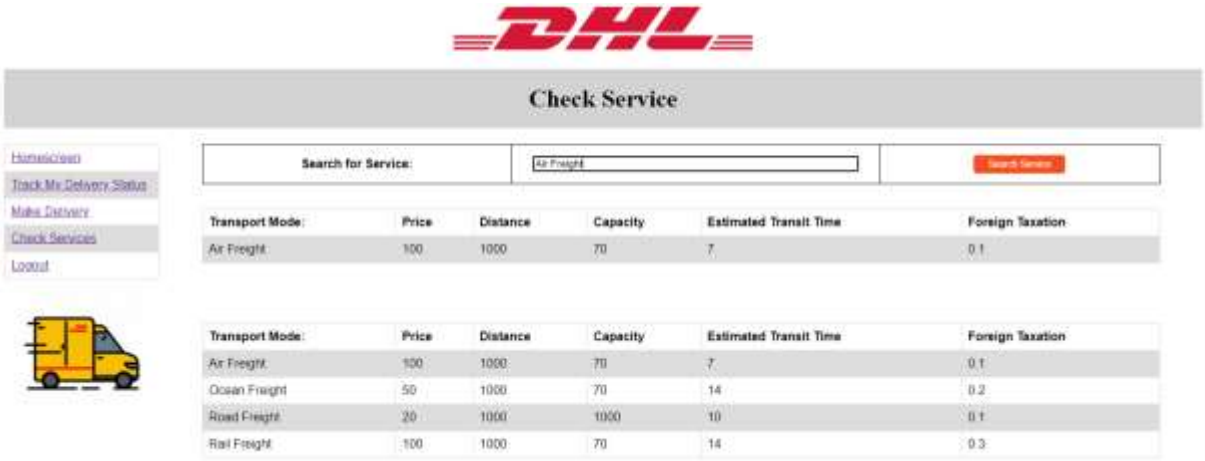


Figure 14. By using the search bar, end user can search for specific services based on the entered keyword.

Management Module:

<u>Management Dashboard</u>

Upon successful authentication at the management login page, the end user will be directed to the management dashboard. Here, the page will greet the end user and their position based on their respective names and positions from the “staff table”.

Figure 15. The manager’s point of view in the dashboard

Figure 16. The employee's point of view in the dashboard

Request Management Page

The request management page is where the staff is allowed to track and monitor the requests made by the client. Every request the client makes will be stored into the database and presented in a table.

The refresh button will refresh the page which will in turn refresh the

Request Management

Home Dashboard
Customer Accounts Management
Delivery Schedule Management
Payments Management
Service Management
Request Management
Logout

Refresh

Request Number	Client Name	Contact Number	Origin Address	Destination Address	Payment Date	Domestic/International	Transport Type	Capacity (Kilograms)
1341	Jake	1111	SUBANG JAYA	KUL	2020-11-28	Domestic	Air Freight	11
1342	Jake	2222	2222	2222	2020-11-28	Domestic	Air Freight	11
1343	Jake	3333	3333	3333	2020-11-28	Domestic	Air Freight	11
1344	Jake	4444	4444	4444	2020-11-28	Domestic	Air Freight	11
1345	Jake	4444	4444	4444	2020-11-28	Domestic	Air Freight	11
1346	Jake	4444	4444	4444	2020-11-28	Domestic	Air Freight	11
1347	Jake	123456789	Subang Jaya	Johor	2020-11-28	Domestic	Air Freight	10

Figure 17. The request management page

Delivery Schedules Management Page

The delivery schedules management page is where staff will be able to view and track the orders made by the clients as well as the scheduling of each of the orders. Staff are allowed to add or update the schedules by making requests. Only the manager is able to authorize the request.

Management Module: Schedules Management

Home Dashboard
Customer Accounts Management
Delivery Schedule Management
Payments Management
Service Management
Request Management
Logout

Pending Schedules Add Requests

Billing Name:	Origin Address:	Destination Address:	Delivery Mode:	Status:	Estimated Delivery Time(days):	Delivery Date:	Unit Price:	Maximum Capacity(kilograms):

Pending Schedules Update Requests

Delivery ID:	Origin Address:	Destination Address:	Delivery Mode:	Status:	Estimated Delivery Time:

Add Schedules Update Schedules

ScheduleID	DeliveryDate	DeliveryStatus	BillingName	OriginLocation	DestinationLocation	DeliveryMode	UnitPrice	MaximumCapacity	Estimated Delivery Time
1274	2020-11-28	DELIVERED	Jake	Subang	Kul	Road Freight	0	70	2
1275	2020-11-28	NOT DELIVERED	Jake	2222	2222	Air Freight	0	70	7
1276	2020-11-28	NOT DELIVERED	Jake	3333	3333	Air Freight	0	70	7
1277	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1278	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1279	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1280	2020-11-28	NOT DELIVERED	Jake	Subang Jaya	Johor	Air Freight	0	70	7

Figure 18. The order schedules management page

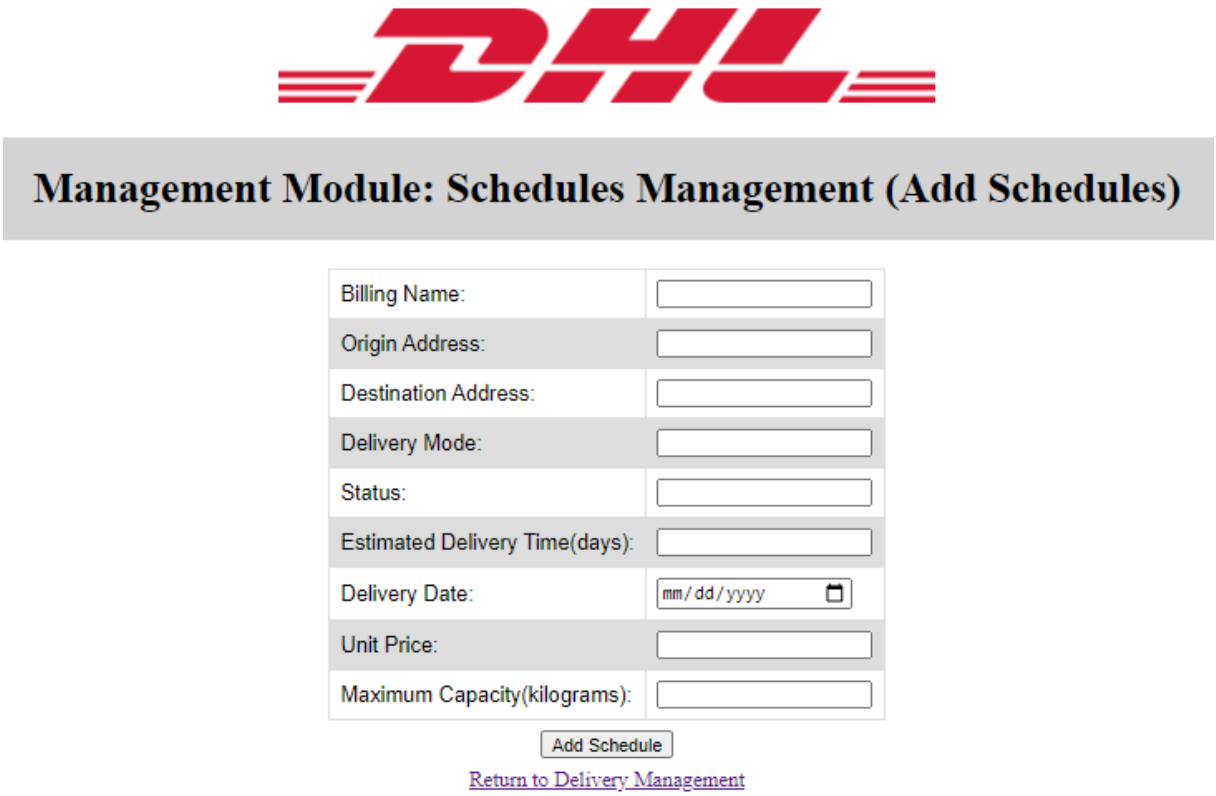


Figure 19. The adding of schedules function

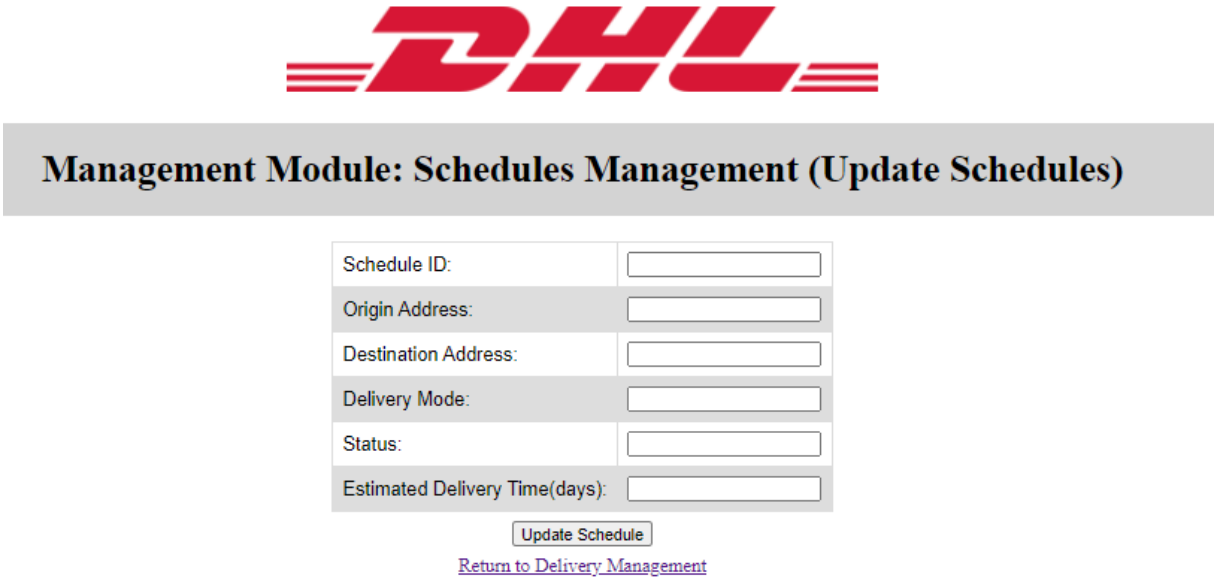


Figure 20. The adding of schedules function

Management Module: Schedules Management

Pending Schedules Add Requests

Billing Name:	Origin Address:	Destination Address:	Delivery Mode:	Status:	Estimated Delivery Time(days):	Delivery Date:	Unit Price:	Maximum Capacity(kilograms):
John	Subang Jaya	Johor	2020-11-28	Road Freight	NOT DELIVERED	14	100	10

Pending Schedules Update Requests

Delivery ID:	Origin Address:	Destination Address:	Delivery Mode:	Status:	Estimated Delivery Time:	
1274	Subang Jaya	Kuala Lumpur	Air Freight	NOT DELIVERED	3	pending

Add Schedules | Update Schedules

ScheduleID	DeliveryDate	DeliveryStatus	BillingName	OriginLocation	DestinationLocation	DeliveryMode	UnitPrice	MaximumCapacity	Estimated Delivery Time
1274	2020-11-28	DELIVERED	Jake	Subang	Kul	Road Freight	0	70	2
1275	2020-11-28	NOT DELIVERED	Jake	2222	2222	Air Freight	0	70	7
1276	2020-11-28	NOT DELIVERED	Jake	3333	3333	Air Freight	0	70	7
1277	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1278	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1279	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1280	2020-11-28	NOT DELIVERED	Jake	Subang Jaya	Johor	Air Freight	0	70	7

Figure 21. The adding and update requests made by the employee.

Management Module: Schedules Management

Pending Schedules Add Requests

Billing Name:	Origin Address:	Destination Address:	Delivery Mode:	Status:	Estimated Delivery Time(days):	Delivery Date:	Unit Price:	Maximum Capacity(kilograms):	
John	Subang Jaya	Johor	2020-11-28	Road Freight	NOT DELIVERED	14	100	10	Approve

Pending Schedules Update Requests

Delivery ID:	Origin Address:	Destination Address:	Delivery Mode:	Status:	Estimated Delivery Time:		
1274	Subang Jaya	Kuala Lumpur	Air Freight	NOT DELIVERED	3	pending	Approve

Add Schedules | Update Schedules

ScheduleID	DeliveryDate	DeliveryStatus	BillingName	OriginLocation	DestinationLocation	DeliveryMode	UnitPrice	MaximumCapacity	Estimated Delivery Time
1274	2020-11-28	DELIVERED	Jake	Subang	Kul	Road Freight	0	70	2
1275	2020-11-28	NOT DELIVERED	Jake	2222	2222	Air Freight	0	70	7
1276	2020-11-28	NOT DELIVERED	Jake	3333	3333	Air Freight	0	70	7
1277	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1278	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1279	2020-11-28	NOT DELIVERED	Jake	4444	4444	Air Freight	0	70	7
1280	2020-11-28	NOT DELIVERED	Jake	Subang Jaya	Johor	Air Freight	0	70	7

Figure 22. The schedules management from the manager's point of view. The manager can approve the requests made by the employee.

Service Management Page

The service management page is where authorized staff will add or update services provided by DHL such as Air, Ocean, Road and Rail Freights. Authorized staff will be able to request for changes or add new services and specify other attributes such as the price, maximum capacity and distance of transit. Only the manager will be able to authorize the request made by the staff.

Figure 23. The service management page.

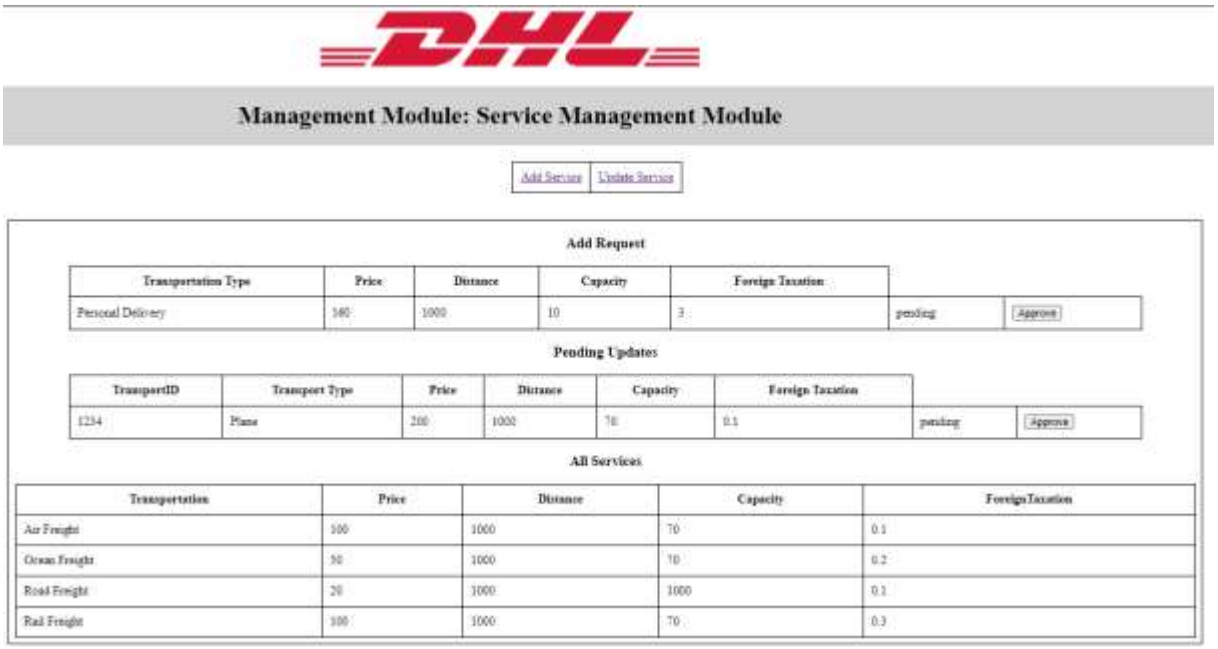


Figure 24. The add and update requests made. Only the manager can approve the requests.

Customer Payments Management Page

The customer payments management page is where authorized staff can view and track payments made by the clients. Only the manager or admin will be given the privilege to add or update the records displayed. Staff will be able to search for payment records by specifying the invoice id.

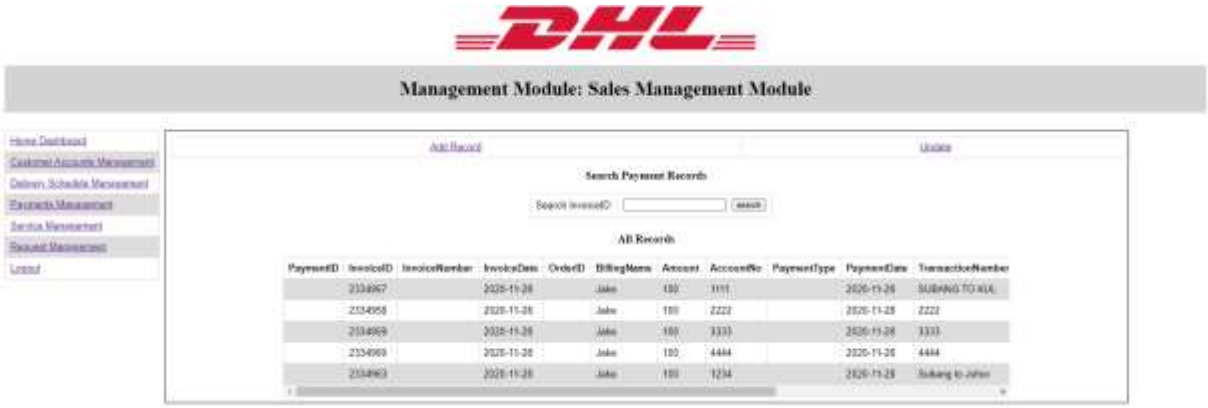


Figure 25. The Customer payments management page.

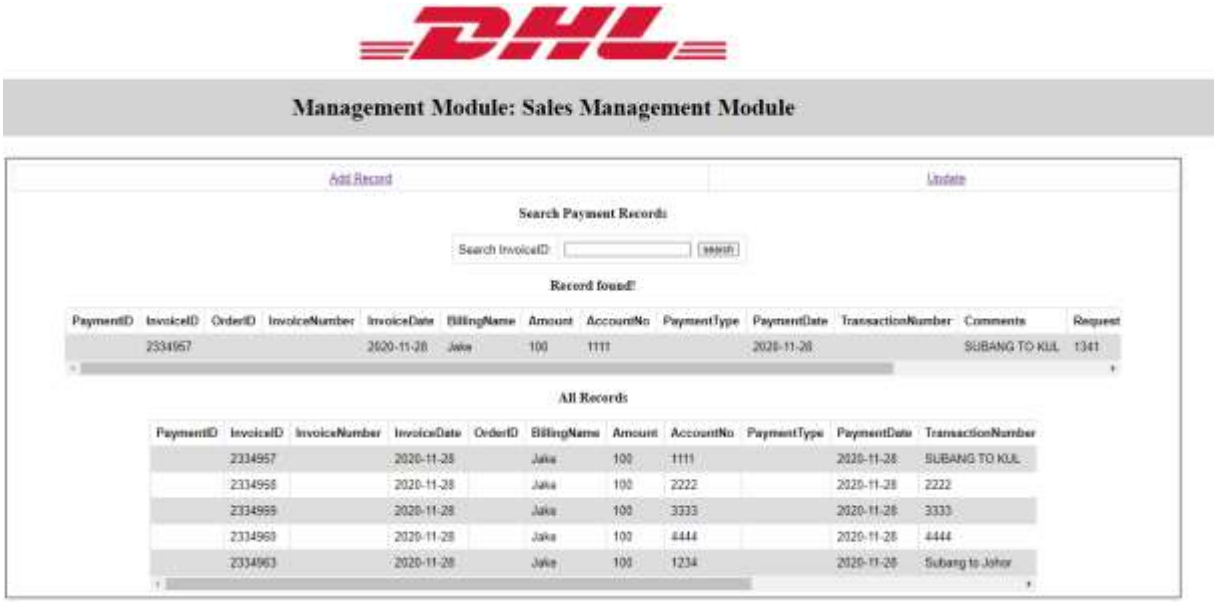


Figure 26. The search functionality where the end user can search for payment records based on the invoiceID.

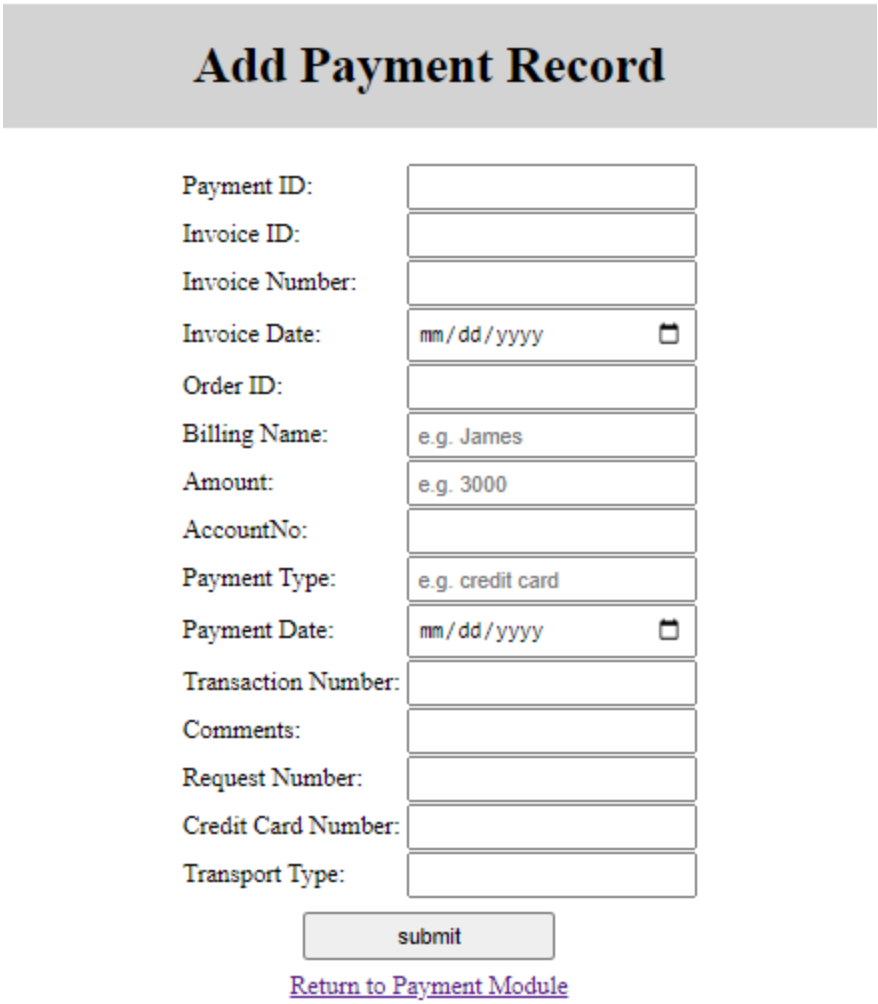


Figure 27. The adding of payment records which can only be done by the manager.

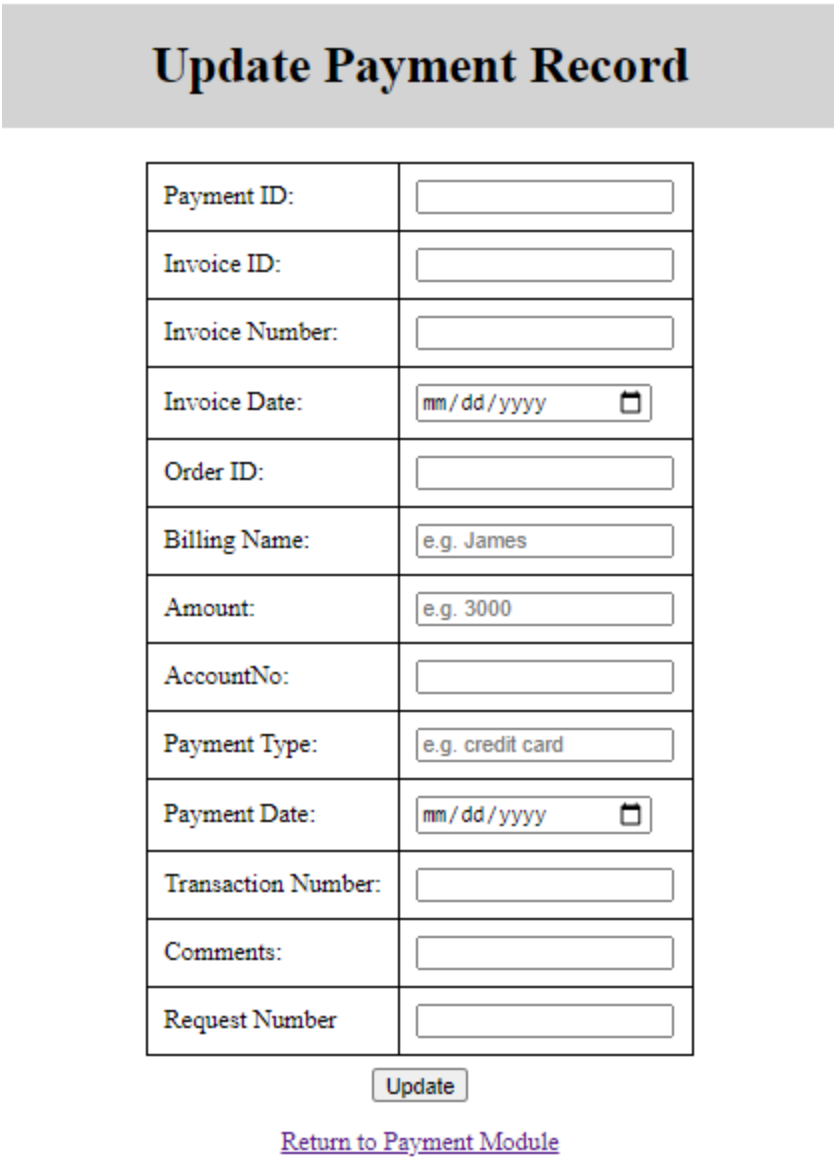


Figure 28. The updating of payment records which can only be done by the manager.

Customer Accounts Management Page

The customer accounts management is one of the business functions included in our DHL management module. This page has 2 sub-business functions.

As with all the other pages, there is a navigation menu on the left which lists links to the home screen, other business function modules, and an option to logout as shown in Figure 29. Managers and employees can access the different sub-business functions by using the navigation bar at the centre. Employees can search customer accounts but not approve status updates while managers have access to both business functions.

Figure 29. Customer Accounts Module Page

1. Search Customer Accounts

Managers and employees can search customer accounts by customer ID or by keyword. The customer ID field is required but the keyword field can be left empty to search for all customer records.

In Figure 29.1, an employee types the customer ID into the input box exactly and submits the search. A single customer record with the searched ID is displayed in a scrollable table format. Certain columns within a row may be empty if the field is optional. The password field is not displayed for security reasons.

Figure 29.1. Search customer with customer ID "123"

In Figure 29.2, an employee types the keyword "john" into the keyword input box and searches multiple customer records. The keyword search will find any record that has the keyword "john" included in any of the fields. Here, it happens to be that 2 customers with the same name are displayed.

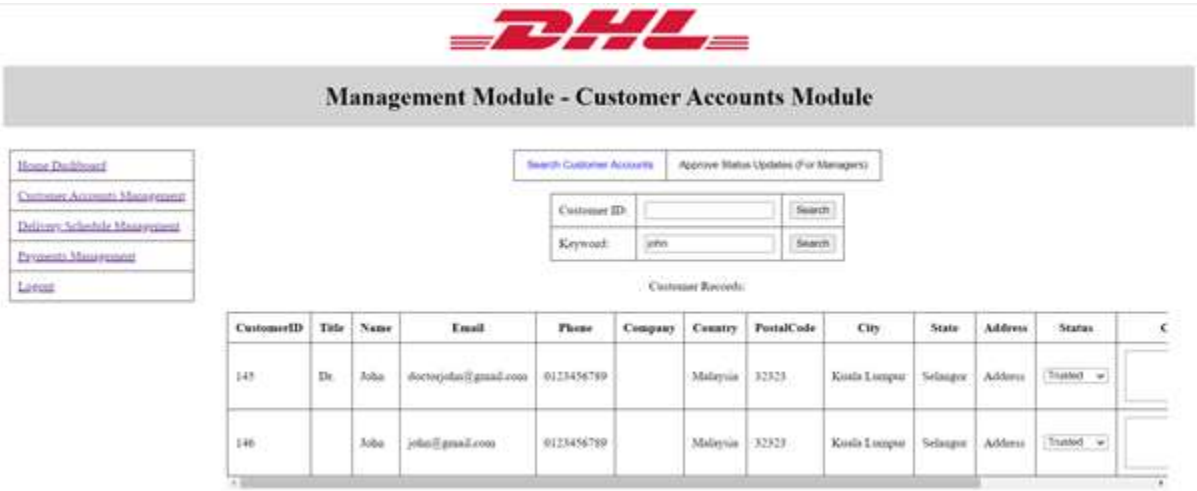


Figure 29.2.Search customer with keyword "john"

2. Approve Status Updates (For Managers)

Employees cannot edit any of the customers' details but can only change the status of customers. Customer statuses can be "TRUSTED" for trusted customers or "UNTRUSTED" for untrustworthy customers. An extra comments input box is there for employees to provide the reason for the status update.

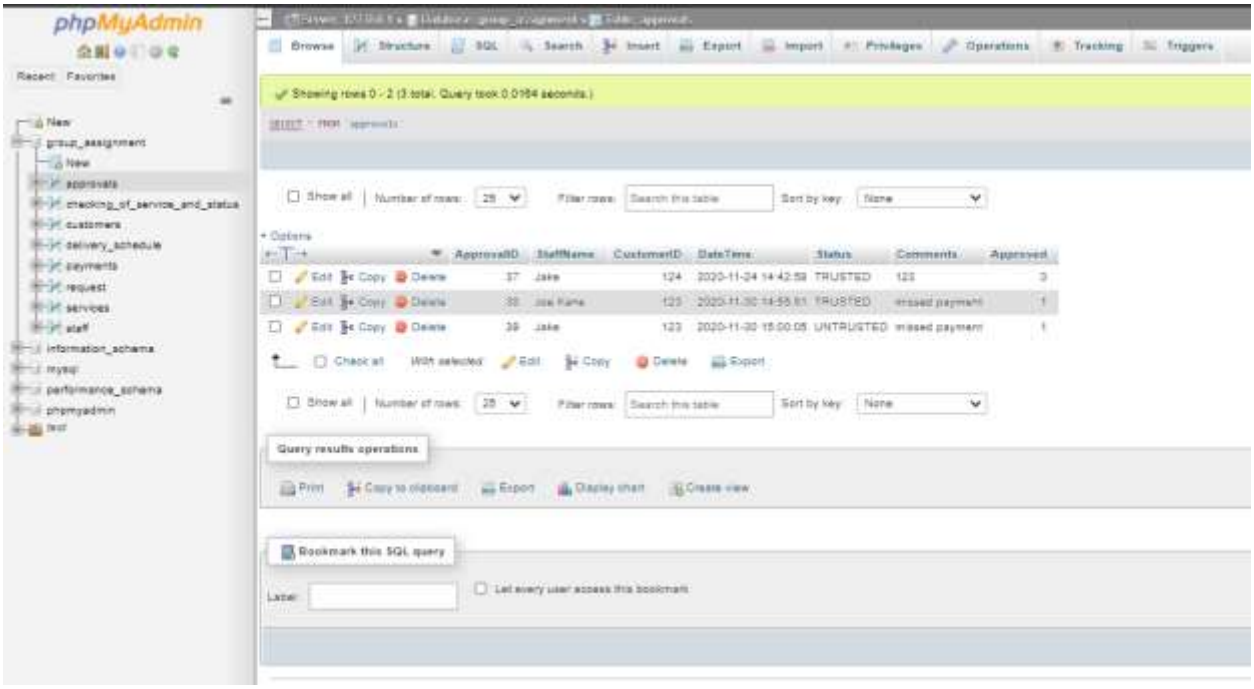
In Figure 29.3, an employee changes customer status with the customer ID "123" from "Trusted" to "Untrusted" using the combo box and enters the reason in the comments text area. Afterwards, the employee clicks on the "Request for Approval" button and waits for a manager to approve the status update. If there was no change in the status or comments the button does nothing. Figure 29.4 shows the disabled status and comments input fields so that employees

cannot make another status change before the initial one was approved and displays the message “Waiting for Approval” after a customer’s status change was requested.

Figure 29.3.Update status to “Untrusted” and comment “reason”

Figure 29.4.Status update “Waiting for Approval”

In Figure 29.5, a manager reviews the request made by an employee or another manager to change the status of a customer. Once reviewed, the manager clicks the approve button to approve the status change, and the original customer record will be updated. Multiple status changes can be made.

Figure 29.5.Approve Status Updates (For Managers)

PhpMyadmin MySQL Database View: