

NSBM Green University

Faculty of Computing

BSc (Hons) of Data Science

CS304.3 Advanced Database Management Systems

Module Lecturer: Mr. S.Naji

Responsive Restaurant Front-End System and Admin Dashboard For Hotel 'JAGABAY'

Group B

Student ID	Name
24572	MKIM Rohana
24614	GAAS Ganegoda
25180	PGJ Lakshani
24921	WKS Geshan
24490	MRK Karunathilaka
25561	TD Athulathmudali
24585	SSD Rosairo
25011	HHN Peiris

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Section 01

1. Introduction

Hotel 'Jagabay' is renowned for its exquisite hospitality and exceptional dining experiences. To further enhance its services, we have developed a comprehensive responsive restaurant front-end system and an administrative dashboard.

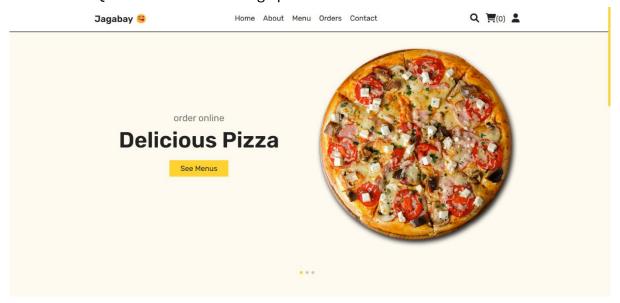
The restaurant front-end system is designed for customers to browse the menu, place orders, and make reservations, while the admin dashboard allows for efficient management of orders and customer interactions. This report details the development process, features, and implementation of these systems.

2. Project Overview

2.1. Hotel 'Jagabay' Restaurant Front-End System.

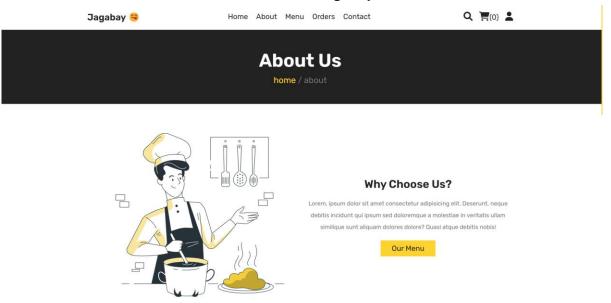
The restaurant's front-end system is crafted to offer a seamless user experience, allowing customers to interact with the restaurant's offerings effortlessly. The design is fully responsive, ensuring compatibility across various devices and screen sizes.

- Home Page.
 - Food categories and latest dishes
 - Quick access to ordering options



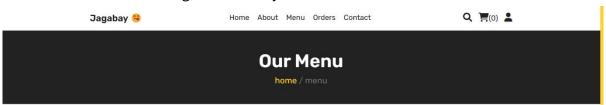
About Page.

> Detailed information about Hotel 'Jagabay' and its staff



Menu Page:

- > Comprehensive listing of restaurant menu items
- Direct ordering functionality

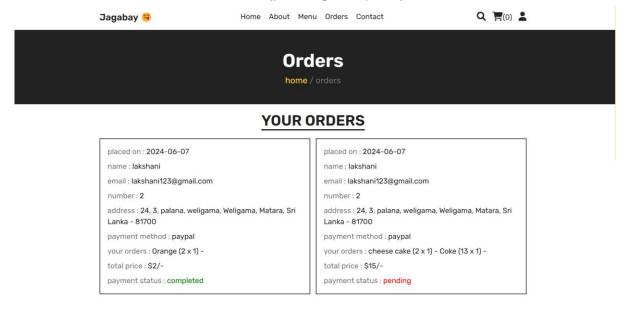


LATEST DISHES



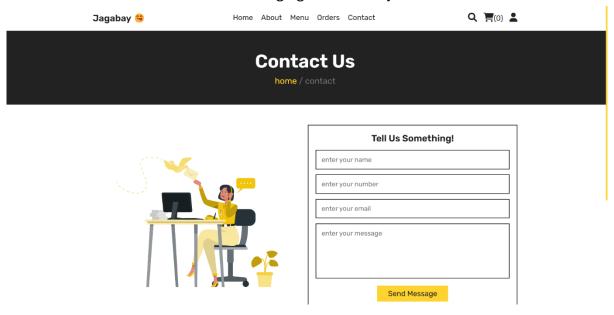
Orders Page.

- View all orders placed
- Order details and status (pending/complete)



Contact Page.

Contact details and messaging functionality for users

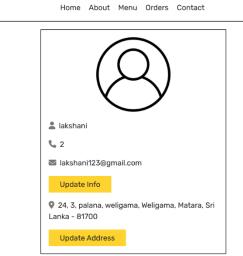


User Account Management.

Jagabay 😘

- Login and registration functionality
- > Update user information
- Update info and update address buttons for quick access

Q 📜(0) 💄



Navigation Bar.

- > Search functionality to find dishes quickly
- Cart icon to view and finalize orders



2.2. Admin Dashboard.

The admin dashboard provides a comprehensive overview of restaurant operations, including order management and customer interactions. It enables waiters to add customer orders and admins to view a summary of all activities, enhancing operational efficiency.

Dashboard Overview.

- Total Spending Orders
- Total Completed Orders
- Total Orders
- Number of Products Added
- Number of User Accounts
- Number of Admins
- Number of New Messages

• Product Management.

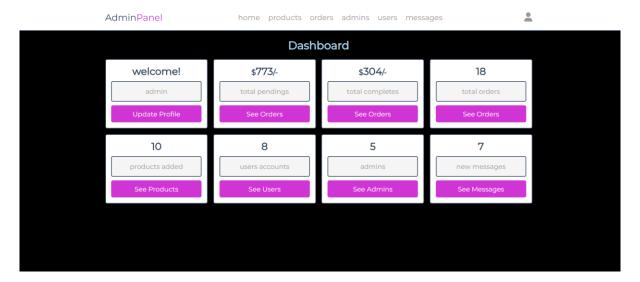
- Product Page for adding new menu items
- View orders placed and their details

• Admin Management.

- Admin page for managing admin accounts
- Add new admin functionality

User Management.

- User page for managing user accounts
- View and respond to user messages



3. Design and Development

Technologies Used.

• HTML, CSS, Vanilla JavaScript

For building the front-end user interface and implementing interactive features.

PHP PDO

For secure database connectivity and query execution.

• MySQL Database

For storing and managing data related to customers, orders, menu items, and reservations.

Responsive Design.

The website is designed to be fully responsive, utilizing modern CSS techniques such as Grid and Flexbox to ensure a consistent and user-friendly experience across all devices.

4. Implementation Details

4.1. Header Section.

• Implemented using Vanilla JavaScript to provide an intuitive navigation experience.

4.2. Category Section.

• Utilizes CSS Grid to display various food categories in a structured and responsive layout.

4.3. About Section.

 Designed using CSS Flexbox to provide a responsive layout describing the hotel and its restaurant.

4.4. Steps Section.

• Utilizes CSS Grid to provide a step-by-step guide on how to place orders online.

4.5. Reviews Section.

• Displays customer reviews and testimonials using a touch slider.

4.6. Menu Section.

• Uses CSS Grid to showcase the restaurant's menu items in an organized manner.

4.7. Orders Section.

• Designed using CSS Flexbox to display customer orders and their statuses.

4.8. Contact Section.

• Implemented using CSS Flexbox to display contact information and a contact form.

4.9. Search Form Section.

• Designed to allow users to quickly search for menu items.

4.10. Shopping Cart Section.

Utilizes CSS Grid to display the items in the shopping cart and their total.

4.11. Checkout Section.

• Ensures a user-friendly checkout process with a responsive design.

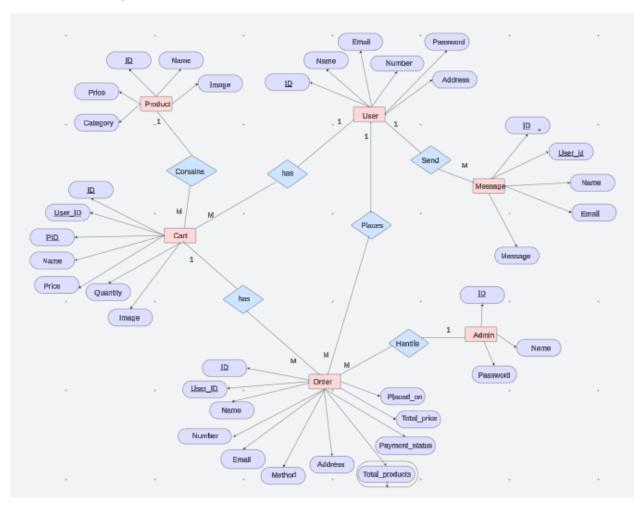
4.12. Profile Sections

- Allows users to view their profile information.
- Provides a form for users to update their profile information.
- Allows users to update their address information.

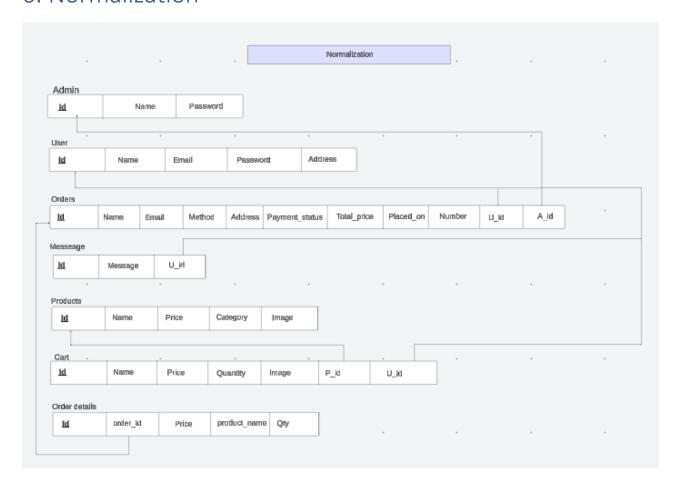
4.13. Footer Section.

• Uses CSS Grid to display links, contact information, and social media links in a structured manner.

5. EER Diagram



6. Normalization



Section 02

7. Tables

• Admin table

```
-- Table structure for table `admin`
--

CREATE TABLE `admin` (
    id` int(100) NOT NULL,
    `name` varchar(20) NOT NULL,
    `password` varchar(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

Cart table

```
CREATE TABLE `cart` (
   `id` int(100) NOT NULL,
   `user_id` int(100) NOT NULL,
   `pid` int(100) NOT NULL,
   `name` varchar(100) NOT NULL,
   `price` int(10) NOT NULL,
   `quantity` int(10) NOT NULL,
   `image` varchar(100) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

Message table

```
CREATE TABLE `messages` (
   id` int(100) NOT NULL,
   iuser_id` int(100) NOT NULL,
   iname` varchar(100) NOT NULL,
   iemail` varchar(100) NOT NULL,
   inumber` varchar(12) NOT NULL,
   imessage` varchar(500) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

Orders table

```
CREATE TABLE `orders` (
   `id` int(100) NOT NULL,
   `user_id` int(100) NOT NULL,
   `name` varchar(20) NOT NULL,
   `number` varchar(10) NOT NULL,
   `email` varchar(50) NOT NULL,
   `method` varchar(50) NOT NULL,
   `address` varchar(500) NOT NULL,
   `total_products` varchar(1000) NOT NULL,
   `total_price` int(100) NOT NULL,
   `placed_on` date NOT NULL DEFAULT current_timestamp(),
   `payment_status` varchar(20) NOT NULL DEFAULT 'pending'
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

User table

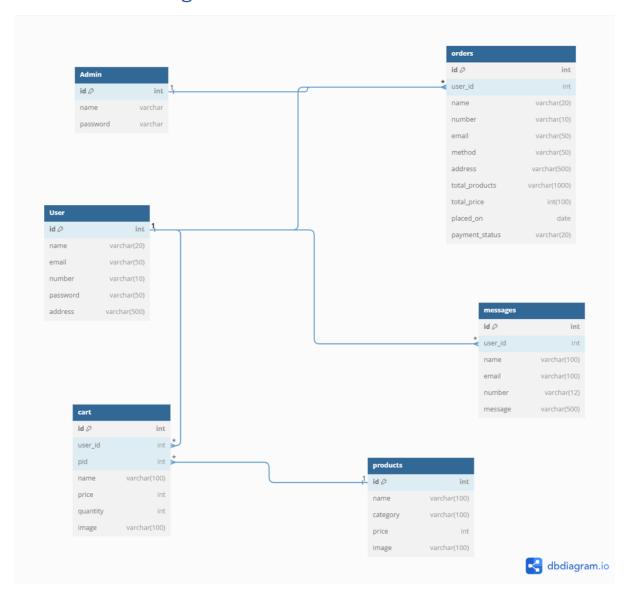
```
CREATE TABLE `users` (
   `id` int(100) NOT NULL,
   `name` varchar(20) NOT NULL,
   `email` varchar(50) NOT NULL,
   `number` varchar(10) NOT NULL,
   `password` varchar(50) NOT NULL,
   `address` varchar(500) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

Products table

```
CREATE TABLE `products` (
   id` int(100) NOT NULL,
   `name` varchar(100) NOT NULL,
   `category` varchar(100) NOT NULL,
   `price` int(10) NOT NULL,
   `image` varchar(100) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

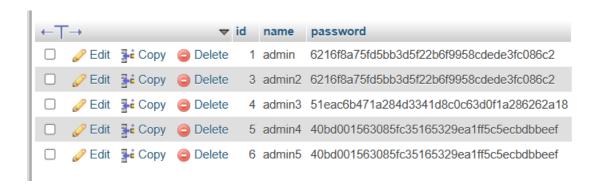


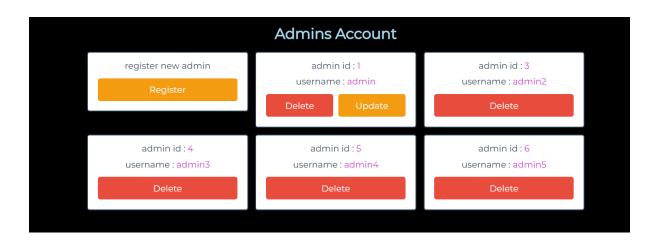
8. Database Diagram



9. Tables with records

• Admin table





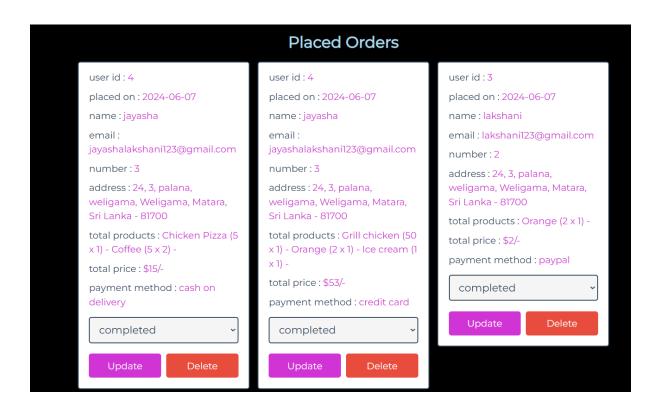
Messages table





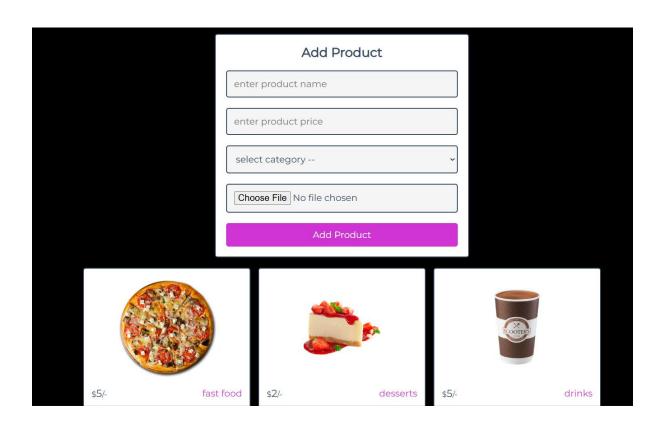
Order table

←T→	▼ i	d user	id name	number	email	method	address	total products	total price	placed on	payment status
□		1	4 jayasha	3	jayashalakshani123@gmail.com	cash on	24, 3, palana, weligama, Weligama, Matara, Sri Lan	Chicken Pizza (5 x 1) - Coffee (5 x 2) -		2024-06-07	completed
□ Ø Edit ♣ Copy	Delete	2	4 jayasha	3	jayashalakshani123@gmail.com	credit card	24, 3, palana, weligama, Weligama, Matara, Sri Lan	Grill chicken (50 x 1) - Orange (2 x 1) - Ice crea	53	2024-06-07	completed
□ // Edit 1 Copy	Delete	3	3 lakshani	2	lakshani123@gmail.com	paypal	24, 3, palana, weligama, Weligama, Matara, Sri Lan	Orange (2 x 1) -	2	2024-06-07	completed
□ Ø Edit 👫 Copy	Delete	4	3 lakshani	2	lakshani123@gmail.com	paypal	24, 3, palana, weligama, Weligama, Matara, Sri Lan	cheese cake (2 x 1) - Coke (13 x 1) -	15	2024-06-07	pending
□ <i>⊘</i> Edit 3 è Copy	Delete	5	5 isuru	5	isuru@gmail.com	credit card	12, 34, japura, jayawardanapura, colombo, western,	Chicken Pizza (5 x 1) - cheese cake (2 x 1) - Cof	72	2024-06-07	completed
□ <i>⊘</i> Edit } Copy	Delete	6	5 isuru	5	isuru@gmail.com	paytm	12, 34, japura, jayawardanapura, colombo, western,	Coke (13 x 1) - Spaghetti Bolognese (70 x 1) -	83	2024-06-07	pending
□ Ø Edit ♣ Copy	Delete	7	6 akila	6	akila@gmail.com	paypal	12, 34, japura, jayawardanapura, colombo, western,	Grill chicken (50 x 1) -	50	2024-06-07	pending
□ Ø Edit ∰e Copy	Delete	8	6 akila	6	akila@gmail.com	cash on delivery	12, 34, japura, jayawardanapura, colombo, western,	cheese cake (2 x 1) - Rice & Curry (160 x 1) -	162	2024-06-07	completed
□ Ø Edit 👫 Copy	Delete	9	7 Hansani	7	hansani@gmail.com	credit card	19, 65, belanwila, belanwila, colomo, colomo, Sri	Orange (2 x 1) - Spaghetti Bolognese (70 x 1) -	72	2024-06-07	pending
□ Ø Edit ♣ Copy	Delete	10	7 Hansani	7	hansani@gmail.com	credit card	19, 65, belanwila, belanwila, colomo, colomo, Sri	Rice & Curry (160 x 1) -	160	2024-06-07	pending



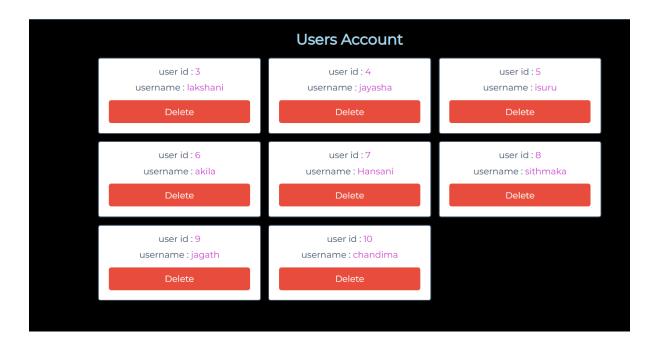
• Products table

←T	→		∇	id	name	category	price	image
		≩ сору	Delete	1	Chicken Pizza	fast food	5	home-img-1.png
		t 👫 Copy 🥥 Delete		2	cheese cake	desserts	2	dessert-6.png
		≩ Copy	Delete	3	Coffee	drinks	5	drink-2.png
		≩ Copy	Delete	4	Newyork burger	fast food	10	home-img-2.png
		≩ Copy	Delete	5	Grill chicken	main dish	50	home-img-3.png
		≩ Copy	Delete	6	Rice & Curry	main dish	160	rice_and_curry.jpg
		≩ Copy	Delete	7	Spaghetti Bolognese	main dish	70	spaghetti.jpg
		≩ Copy	Delete	8	Orange	drinks	2	orange.jpg
		≩ Copy	Delete	9	Ice cream	drinks	1	ice_cream.jpg
		≩ Copy	Delete	10	Coke	drinks	13	coke.jpg



Users table





• Cart table



YOUR CART





Section 03

10. Triggers

10.1. Delete all the items in the order (cart table)

1. Create Trigger

```
-- trigger after_delete_all_cart_items

CREATE TRIGGER after_delete_all_cart_items

AFTER DELETE ON cart

FOR EACH ROW

BEGIN

DELETE FROM cart

WHERE user_id = OLD.user_id;

END //

DELIMITER;
```

2. PHP code

```
if (isset($_POST['delete_all'])) {
    // Assuming $conn is your database connection and $user_id is set appropriately

    // Delete all cart items for the user
    $delete_cart_items = $conn->prepare("DELETE FROM cart WHERE user_id = ?");
    $delete_cart_items->bind_param('i', $user_id);
    if ($delete_cart_items->execute()) {
        $message[] = 'Deleted all items from cart!';

        // Trigger will automatically delete associated rows due to the defined trigger
    } else {
        $message[] = 'Failed to delete items from cart: ' . $conn->error;
    }
    $delete_cart_items->close();
}
```

10.2. Update the item quantity (cart table)

1. Create Trigger

```
-- trigger after update cart qty
DELIMITER //
CREATE TRIGGER after update cart qty
AFTER UPDATE ON cart
FOR EACH ROW
   DECLARE item price DECIMAL(10, 2);
   DECLARE new quantity INT;
   DECLARE new_amount DECIMAL(10, 2);
   -- Get the price of the item being updated
   SELECT price INTO item price FROM products WHERE id = NEW.product id;
    -- Calculate new amount based on updated quantity
   SET new quantity = NEW.quantity;
   SET new amount = item price * new quantity;
    -- Update the amount and price in the cart table
   UPDATE cart
   SET amount = new amount
   WHERE id = NEW.id;
END //
DELIMITER;
```

2. PHP code

11. Functions.

11.1. Create a function to get total pending amount

1. Create Function

```
-- Function to get total pending orders count
DELIMITER //

CREATE FUNCTION get_total_pending_orders()
RETURNS DECIMAL(10, 2)
BEGIN

DECLARE total_pendings DECIMAL(10, 2);

SELECT SUM(total_price)
INTO total_pendings
FROM orders
WHERE payment_status = 'pending';

RETURN IFNULL(total_pendings, 0);
END //

DELIMITER;
```

2. PHP Code

```
<div class="box">
<?php

// Prepare the SQL query to call the function
$query = "SELECT get_total_pending_orders() AS total_pendings";
$result = $conn->query($query);

if ($result) {
    $row = $result->fetch_assoc();
    $total_pendings = $row['total_pendings'];
} else {
    $total_pendings = 0; // Default value in case of error
}

ch3><span>$</span><?= number_format($total_pendings, 2); ?><span>/-</span></hd>
ch3><span>$-</span></hd>
ch3><span>$-</span></hd>
ch3><span>$-</span></hd>
ch3><span>$-</span></hd>
ch3><</div>
</hd>
```

11.2. Create a function to get total complete amount

1. Create Function

```
-- Function get_total_completed_orders
DELIMITER //

CREATE FUNCTION get_total_completed_orders()
RETURNS DECIMAL(10, 2)
BEGIN

DECLARE total_completes DECIMAL(10, 2);

SELECT SUM(total_price)
INTO total_completes
FROM orders
WHERE payment_status = 'completed';

RETURN IFNULL(total_completes, 0);
END //

DELIMITER;
```

2. PHP Code

12. Views.

12.1. Number of orders completes

1. Create view

```
create view
create view view_total_completed_orders As
select count(*) As total_completes
FROM orders
WHERE payment_status = 'completed';
```

2. PHP Code

```
<div class="box">
<?php
    // Assuming $conn is your database connection

// Prepare the SQL query to call the view
    $query = "SELECT total_completes FROM view_total_completed_orders";
    $result = $conn->query($query);

if ($result) {
          $row = $result->fetch_assoc();
          $total_completes = $row['total_completes'];
    } else {
          $total_completes = 0; // Default value in case of error
    }

?>

</h3></span></span><?= number_format($total_completes, 2); ?><span>/-</span></h3>
total completes
<a href="placed_orders.php" class="btn">see orders</a>
</div>
```

12.2. Number of orders pending

1. Create View

```
-- view_pending_orders_count
CREATE VIEW view_pending_orders_count AS
SELECT COUNT(*) AS total_pending_orders
FROM orders
WHERE payment_status = 'pending';
```

2. PHP Code

```
<div class="box">
<?php

// Assuming $conn is your database connection

// Prepare the SQL query to call the view
$query = "SELECT total_pending_orders FROM view_pending_orders_count";
$result = $conn->query($query);

if ($result) {
    $row = $result->fetch_assoc();
    $total_pending_orders = $row['total_pending_orders'];
} else {
    $total_pending_orders = 0; // Default value in case of error
}
}
```

13. Procedures.

13.1. Update password.

1. Create a Stored Procedure

```
DELIMITER //

    CREATE PROCEDURE update_user_password(
        IN p_user_id INT,
        IN p_old_pass VARCHAR(255),
        IN p_new_pass VARCHAR(255),
        IN p_confirm_pass VARCHAR(255),
        OUT p_message VARCHAR(255)
)

    BEGIN

    DECLARE empty_pass VARCHAR(255);
    DECLARE prev_pass VARCHAR(255);
    DECLARE old_pass VARCHAR(255);

    SET empty_pass = 'da39a3ee5e6b4b0d3255bfef95601890afd80709';
```

```
SELECT password INTO prev pass FROM users WHERE id = p user id;
    SET old_pass = SHA1(p_old_pass);
    IF old_pass != empty_pass THEN
       IF old_pass != prev_pass THEN
           SET p_message = 'Old password not matched!';
            IF p_new_pass != p_confirm_pass THEN
               SET p_message = 'Confirm password not matched!';
               IF p_new_pass != empty_pass THEN
                  UPDATE users
                   SET password = SHA1(p_new_pass)
                   WHERE id = p_user_id;
                   SET p_message = 'Password updated successfully!';
                   SET p_message = 'Please enter a new password!';
               END IF;
           END IF;
       END IF;
       SET p_message = 'Please enter the old password!';
   END IF;
DELIMITER;
```

2. PHP Code to Call the Stored Procedure

```
//Update the password
// Assuming $conn is your database connection
$user id = 1; // Example user ID
$old pass = $ POST['old pass'];
$new_pass = $_POST['new_pass'];
$confirm_pass = $_POST['confirm_pass'];
// Prepare the call to the stored procedure
$update_pass = $conn->prepare("CALL update_user_password(?, ?, ?, ?, @message)");
$update pass->bind param('isss', $user_id, $old_pass, $new_pass, $confirm_pass);
$update pass->execute();
// Retrieve the output parameter
$select_message = $conn->query("SELECT @message");
$message = $select message->fetch assoc()['@message'];
$select message->free();
echo $message;
$update_pass->close();
```

13.2. Update address.

1. Create a Stored Procedure

```
DELIMITER //
CREATE PROCEDURE update user address(
    IN p_user_id INT,
    IN p_flat VARCHAR(50),
   IN p_building VARCHAR(50),
   IN p area VARCHAR(50),
   IN p town VARCHAR(50),
   IN p city VARCHAR(50),
   IN p_state VARCHAR(50),
   IN p country VARCHAR(50),
   IN p_pin_code VARCHAR(6),
   OUT p_message VARCHAR(255)
   DECLARE rows affected INT;
   -- Update the user's address
   UPDATE users
    SET flat = p_flat,
        building = p_building,
        area = p_area,
        town = p town,
        city = p_city,
        state = p_state,
        country = p country,
        pin_code = p_pin_code
   WHERE id = p_user_id;
```

```
-- Check if the update was successful
SELECT ROW_COUNT() INTO rows_affected;

IF rows_affected > 0 THEN

SET p_message = 'Address updated successfully!';

ELSE

SET p_message = 'Failed to update address. User ID not found or no changes made.';

END IF;
END //

DELIMITER;
```

2. PHP Code to Call the Stored Procedure

14. Conclusion

In conclusion, the development of the responsive restaurant front-end system and admin dashboard for Hotel 'Jagabay' has significantly improved operational efficiency and customer satisfaction. The systems are designed to be scalable, with room for future enhancements based on user feedback and technological advancements.