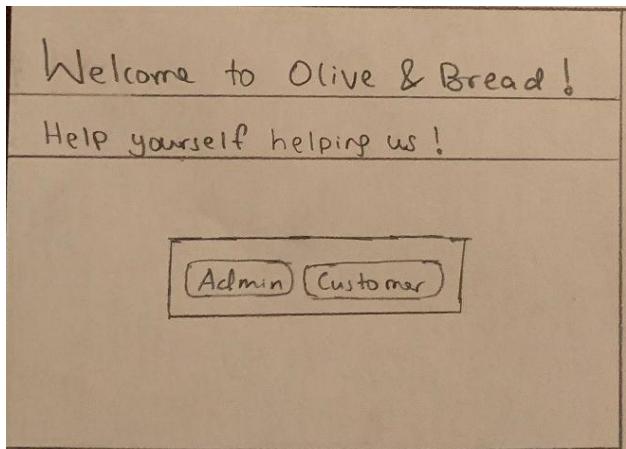


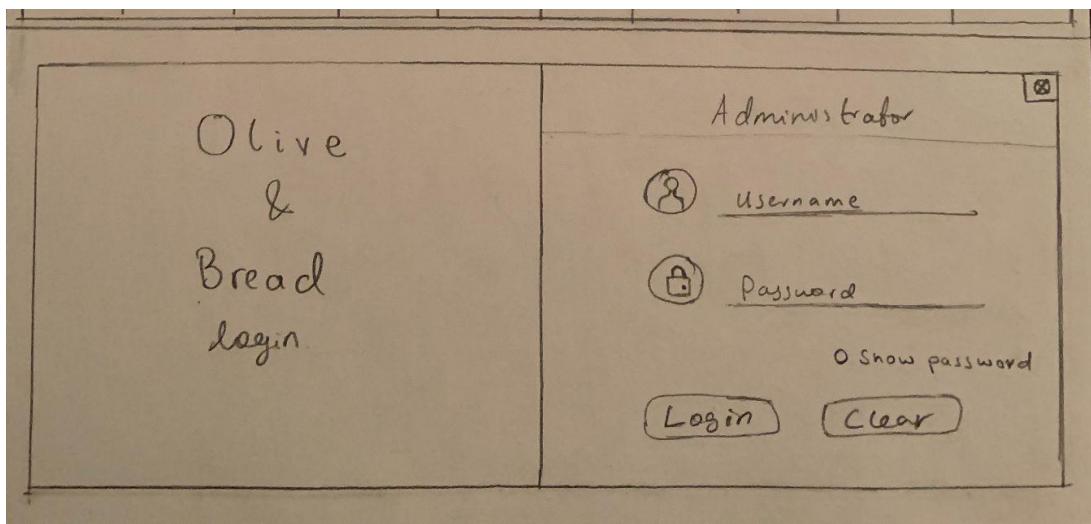
Criterion B – Design

(Note: For the designs below, I will select an appropriate background image from icons8.com)

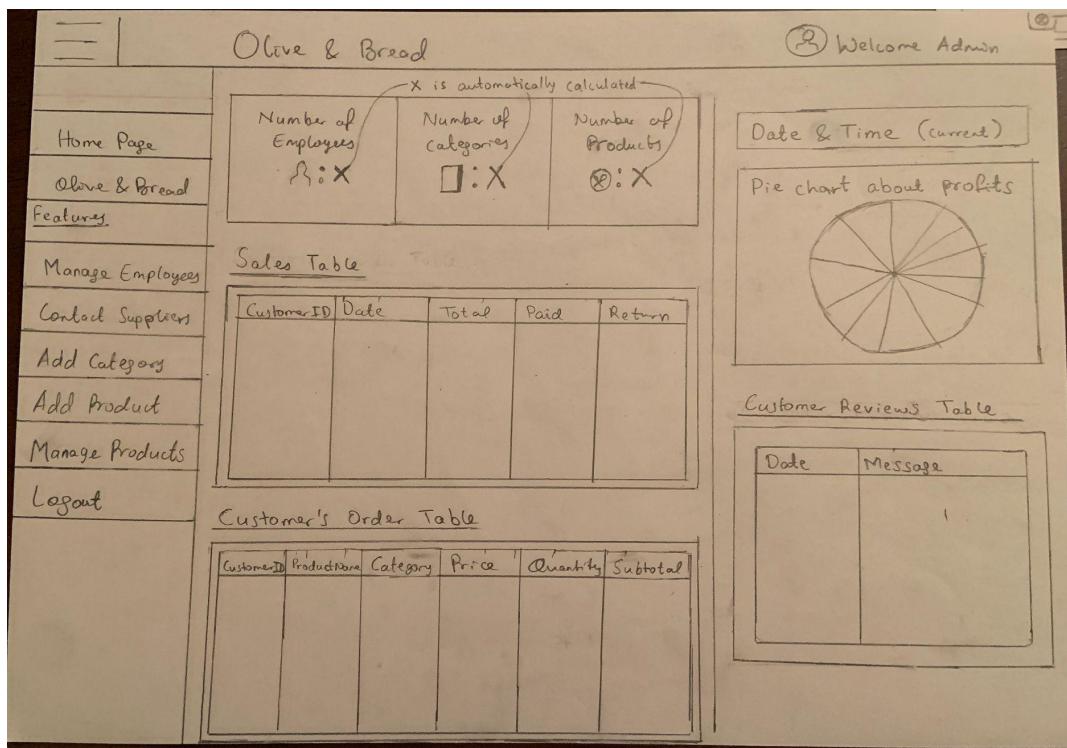
– HomePage JFrame



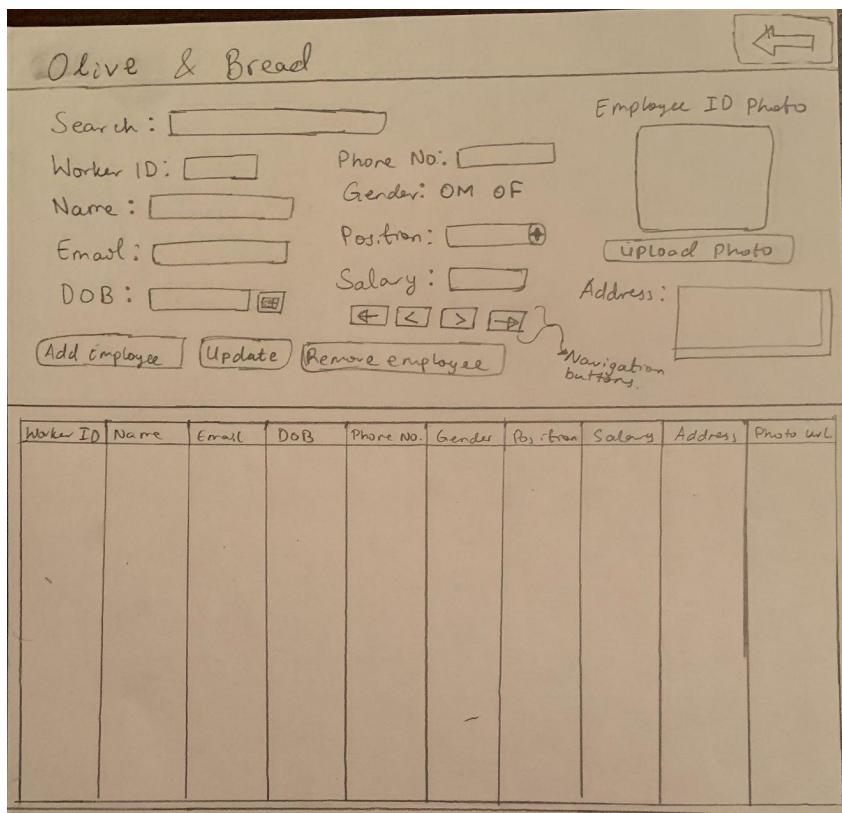
– Login JFrame (if the Admin button is clicked for the option above)



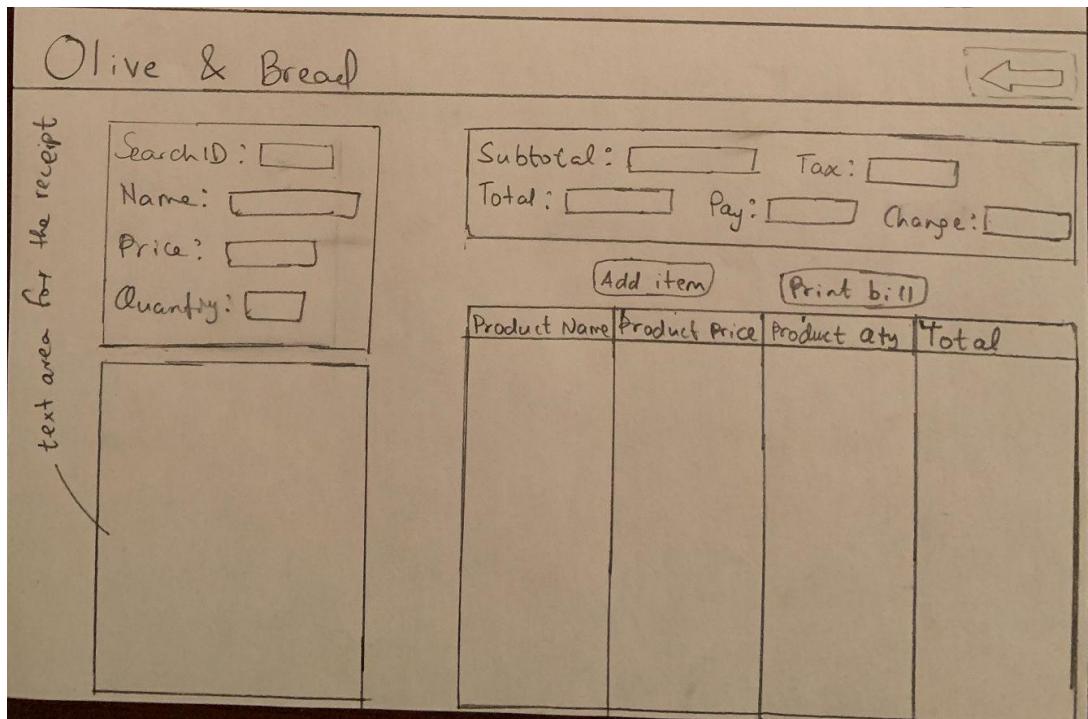
- AdminPage JFrame (if the user logs in successfully)



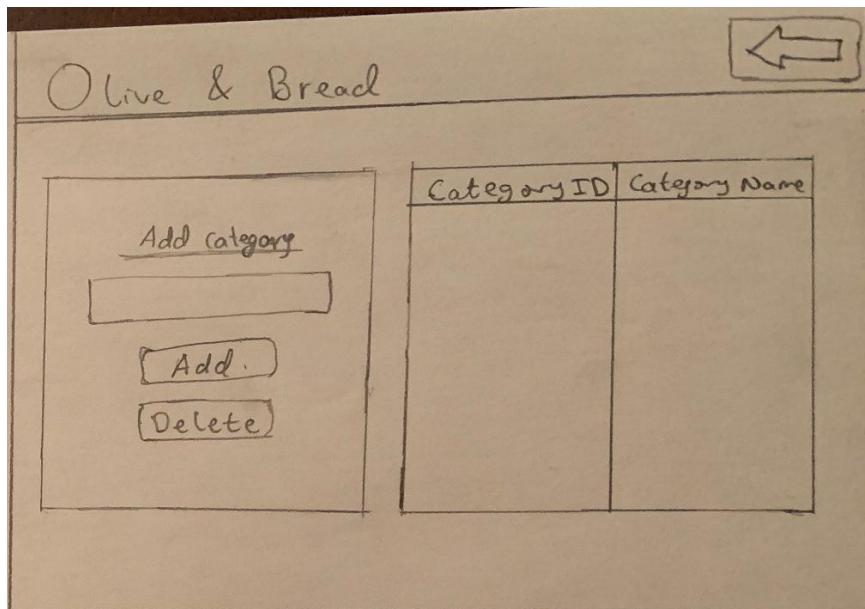
- Employee JFrame



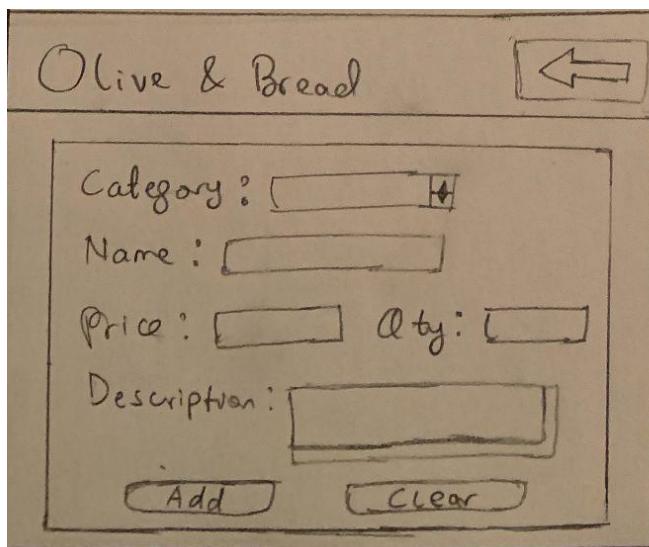
– Supplier JFrame



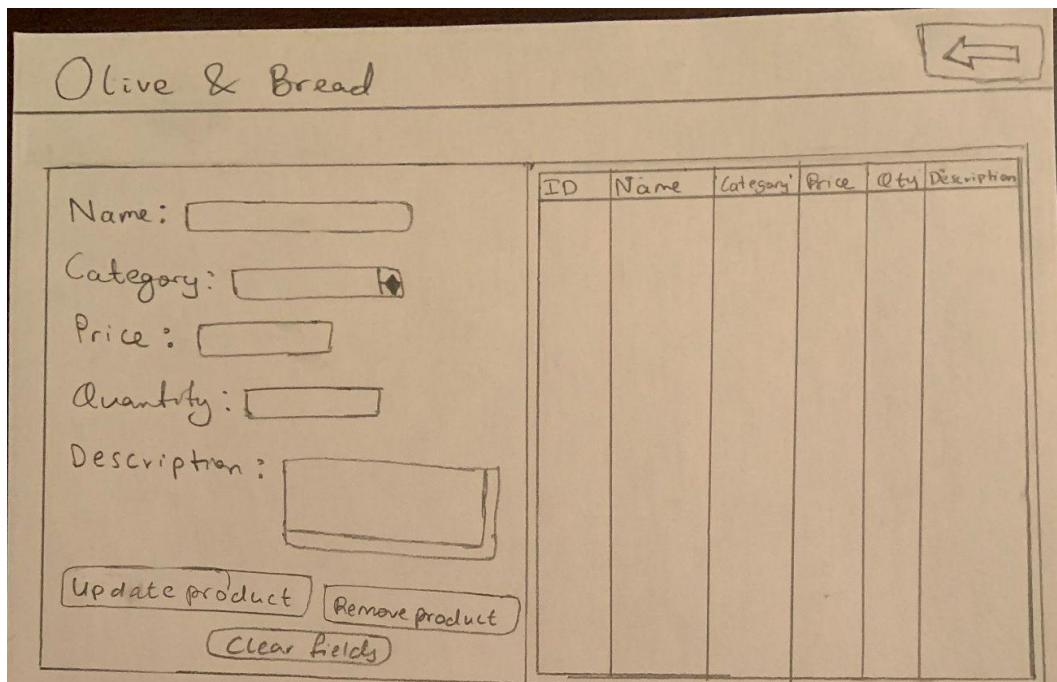
– AddCategory JFrame



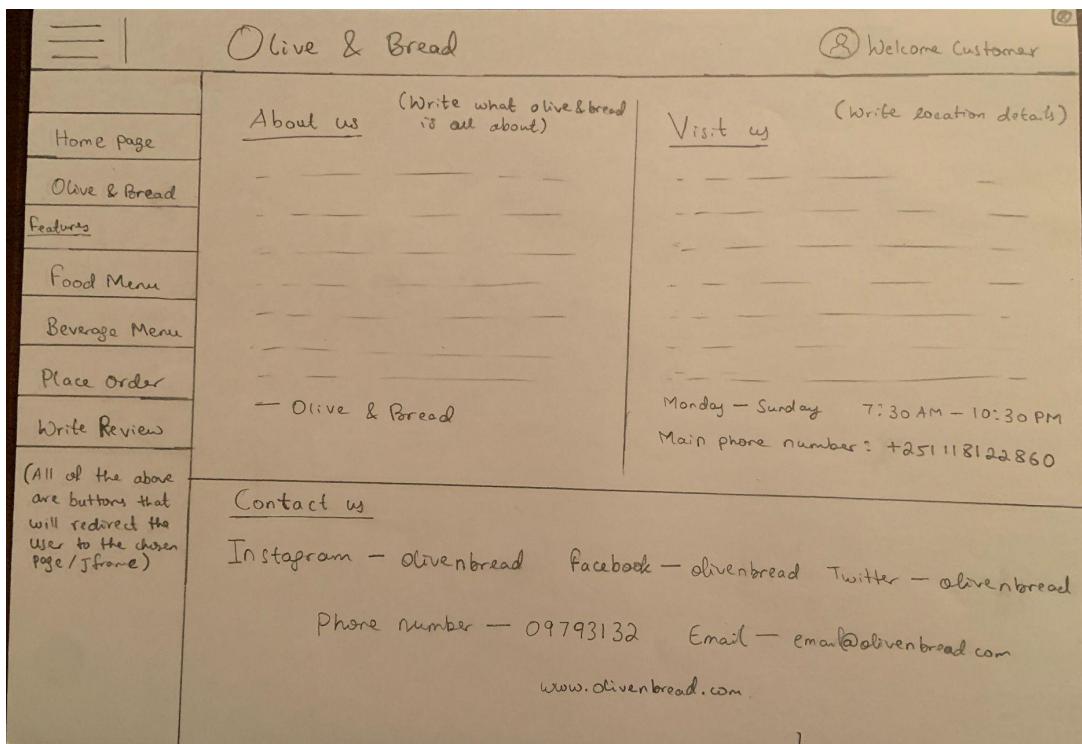
– AddProduct JFrame



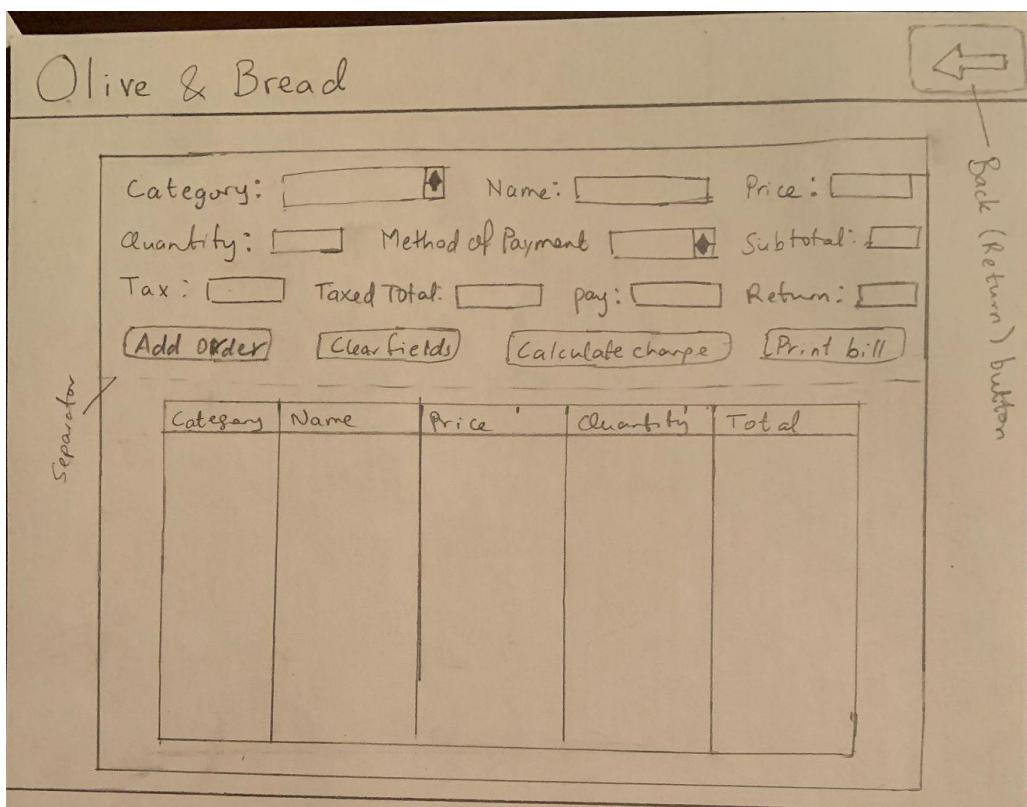
– ManageProduct JFrame



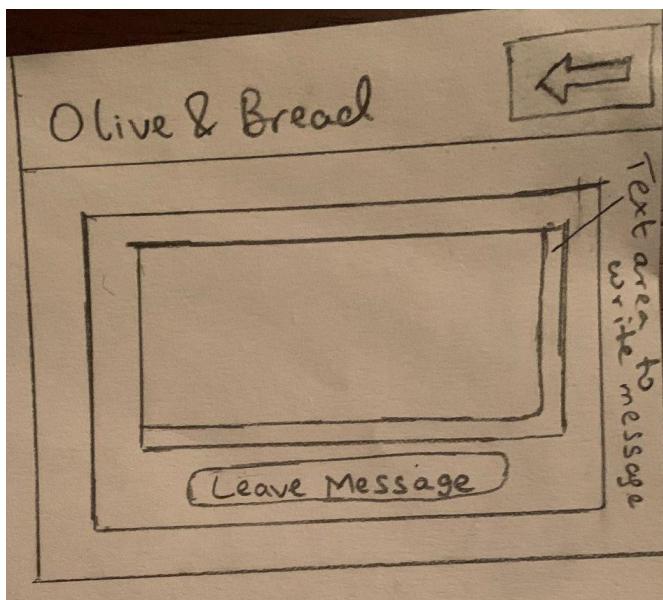
– CustomerPage JFrame (if Customer button is clicked instead of the Admin button)



– Order JFrame

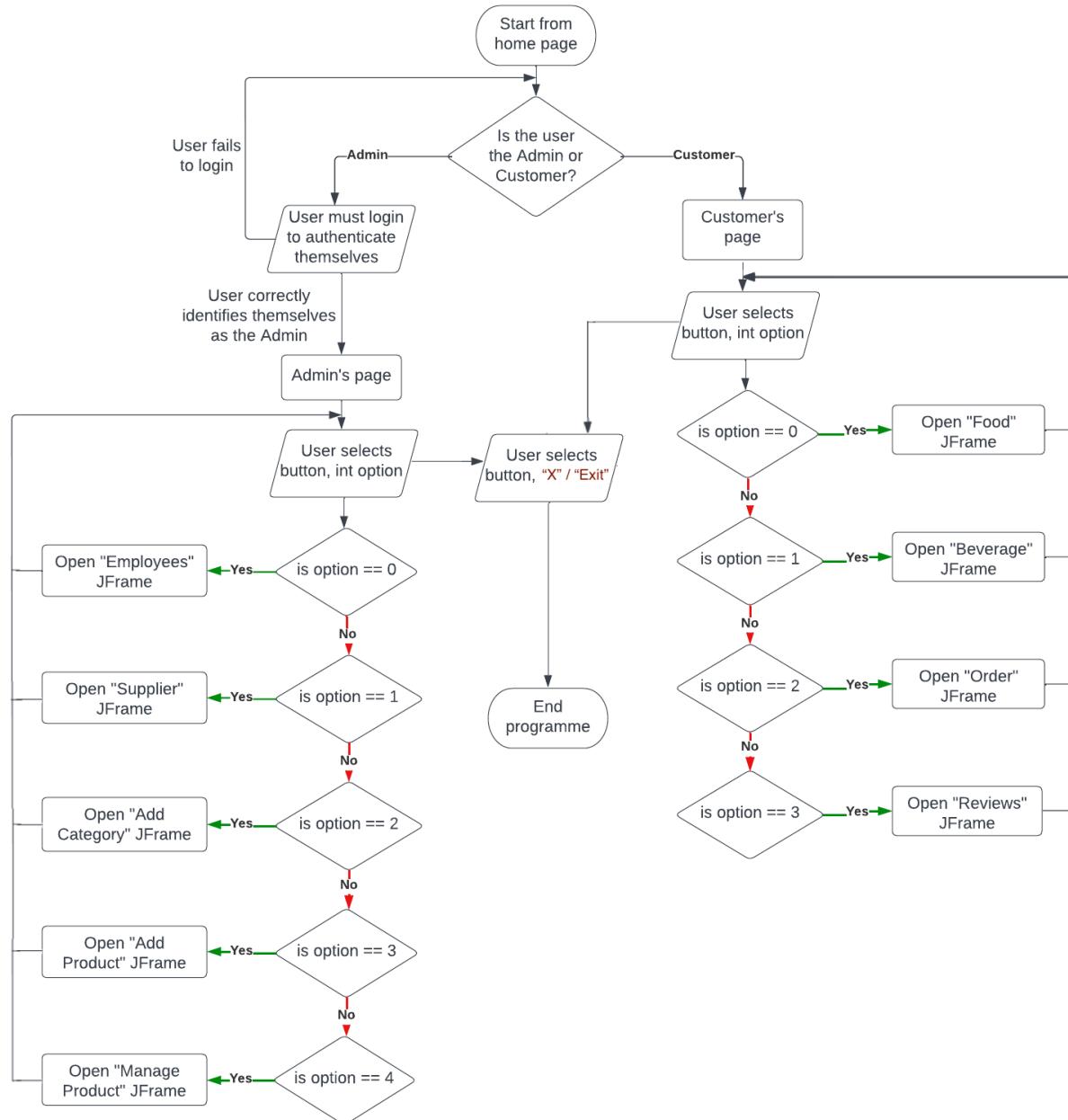


– Review JFrame

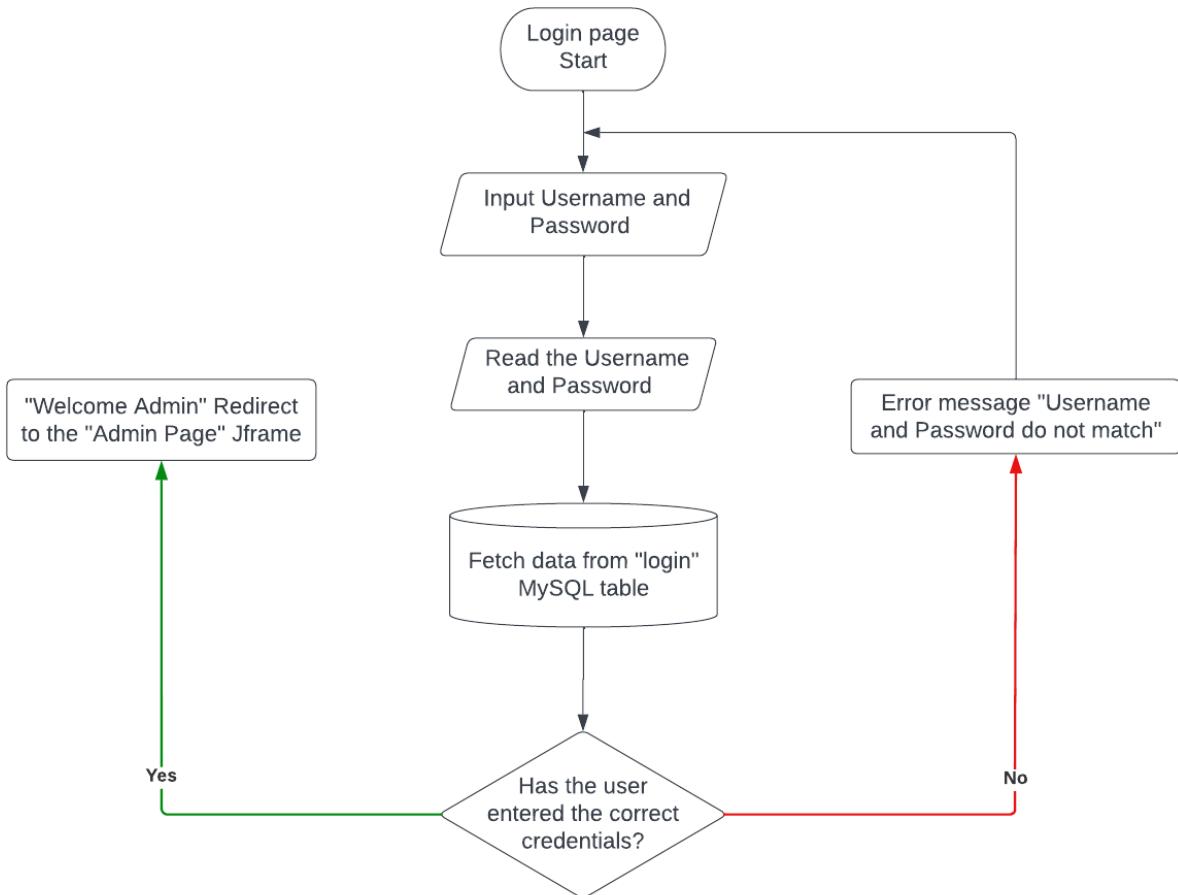


Flowcharts

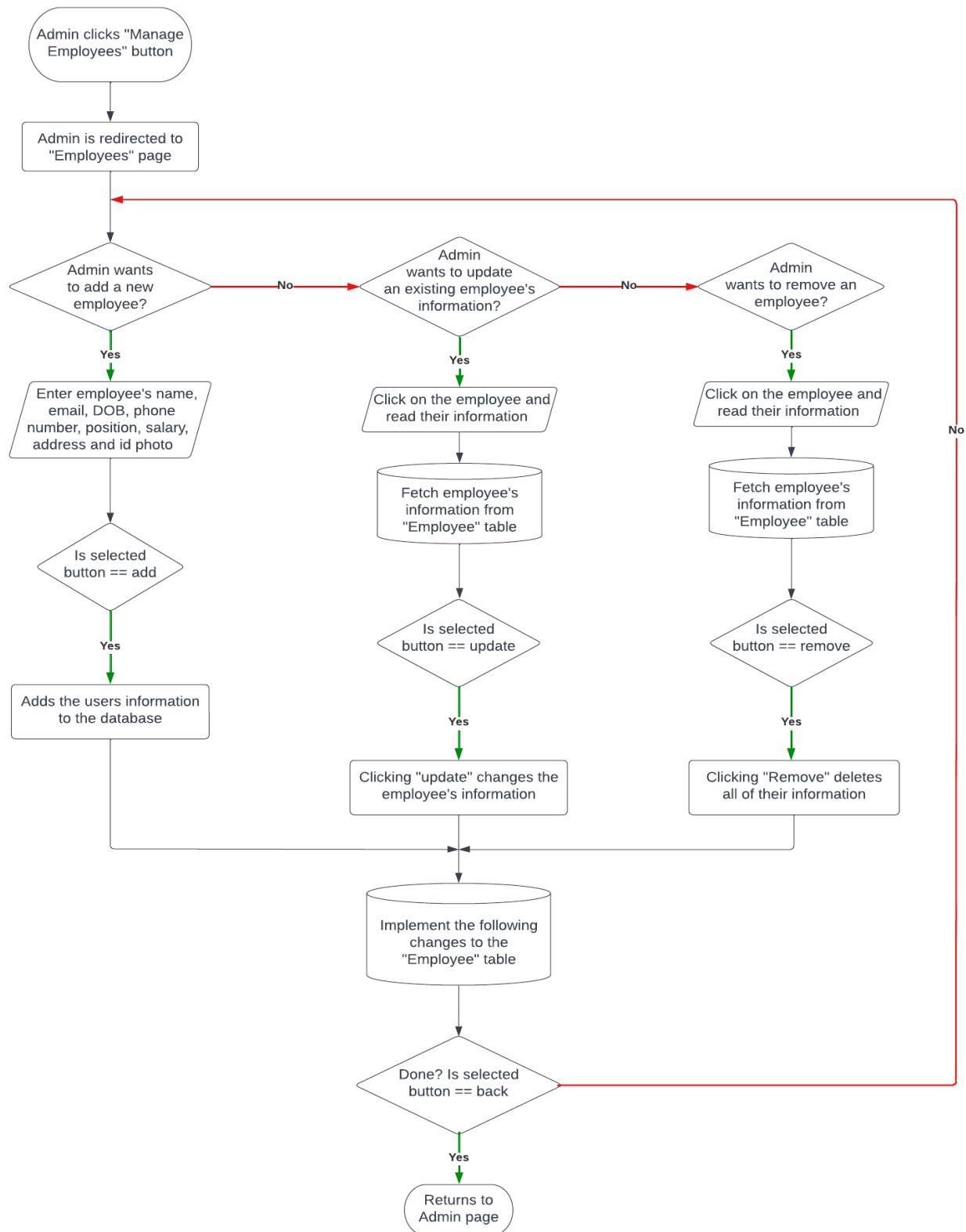
Program Overview



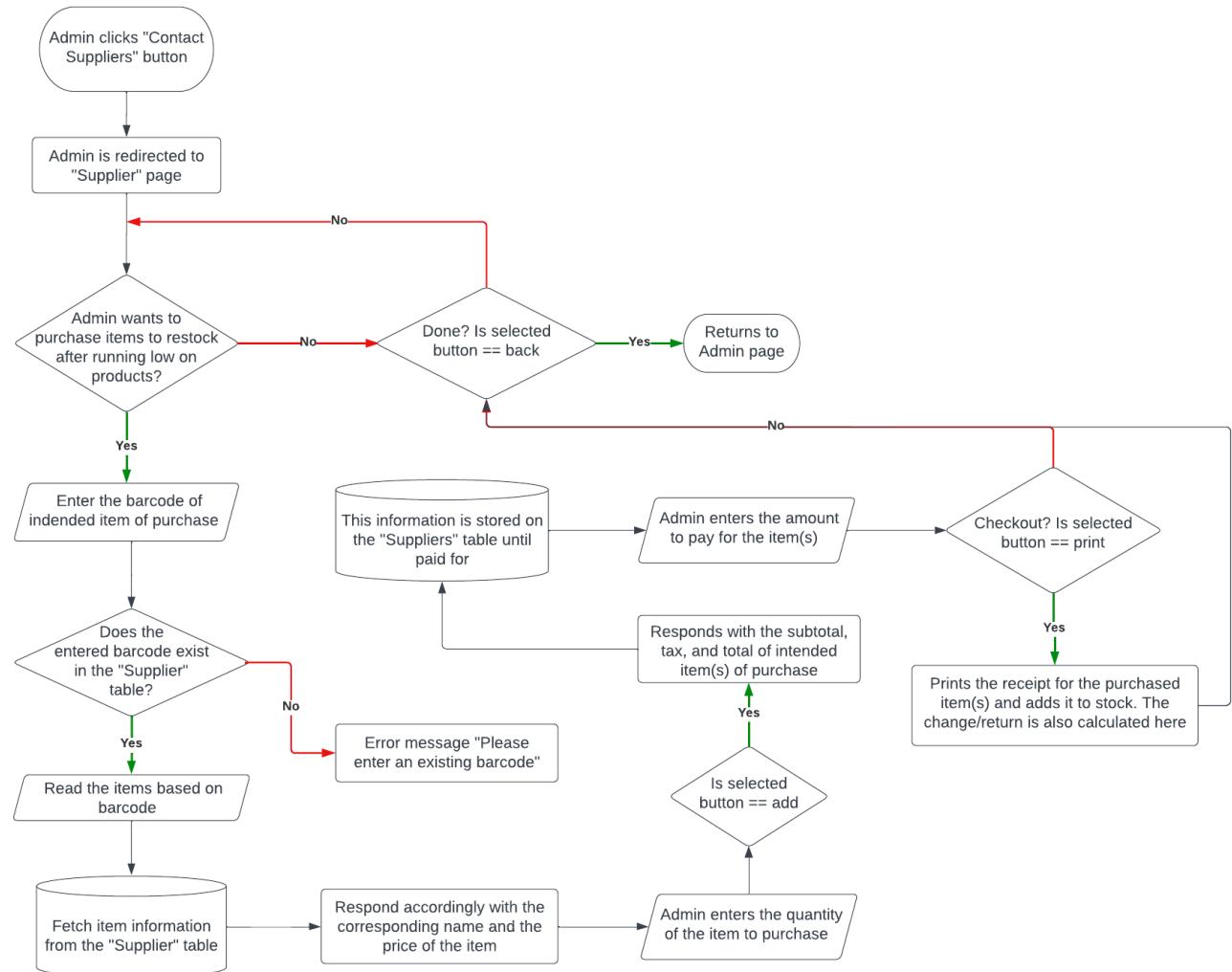
Login Flowchart



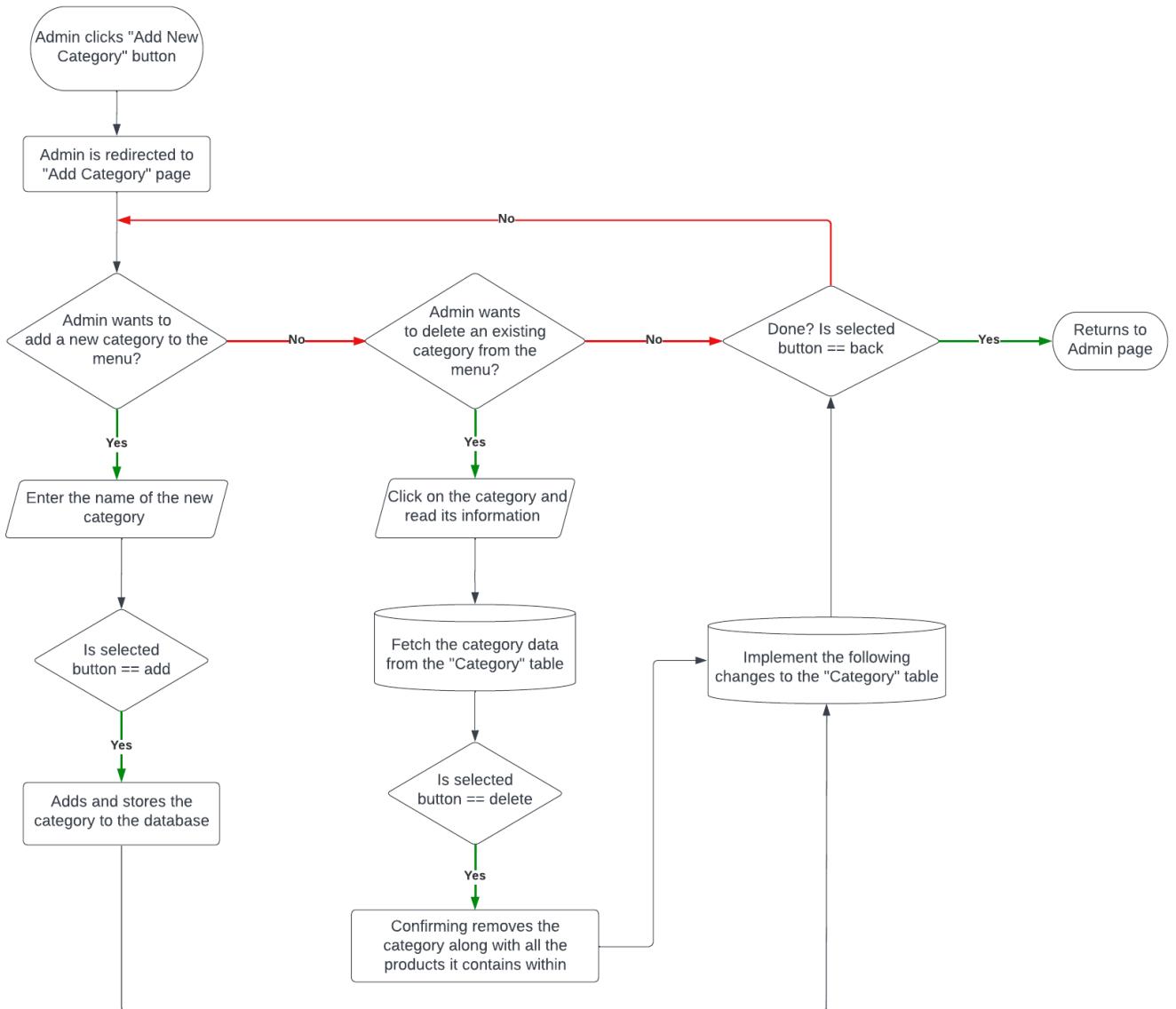
Employees Flowchart



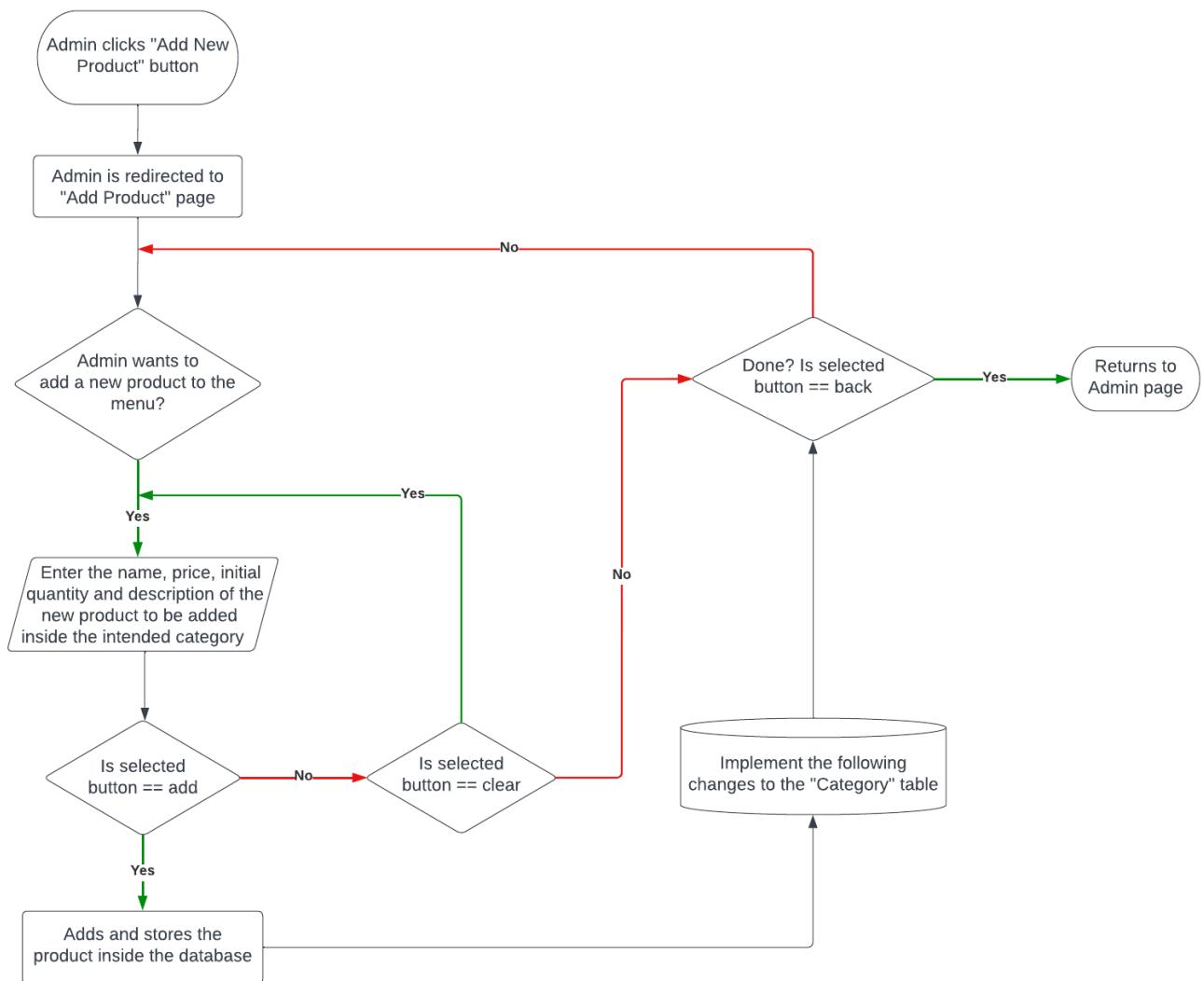
Supplier Flowchart



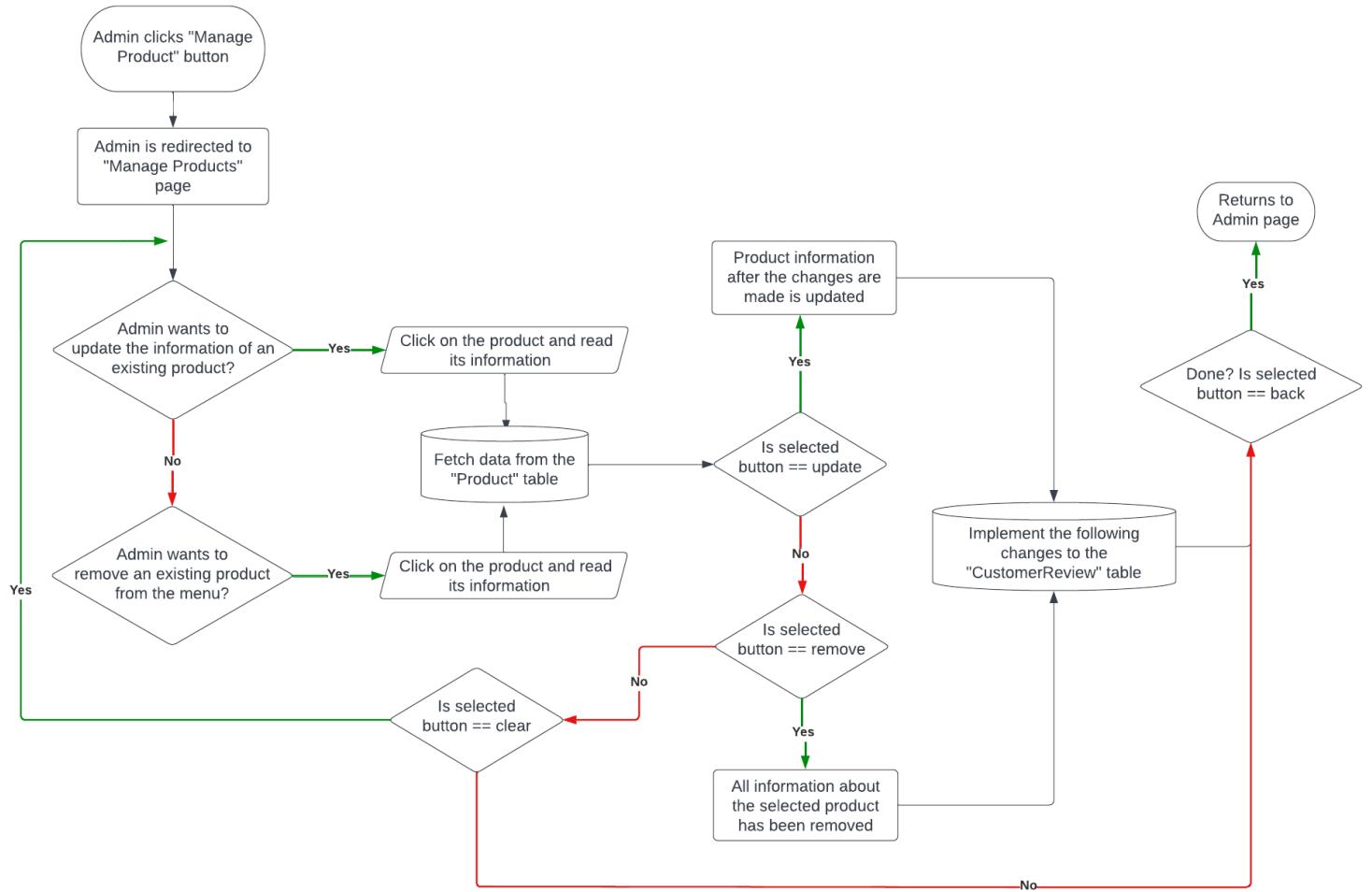
Add Category Flowchart



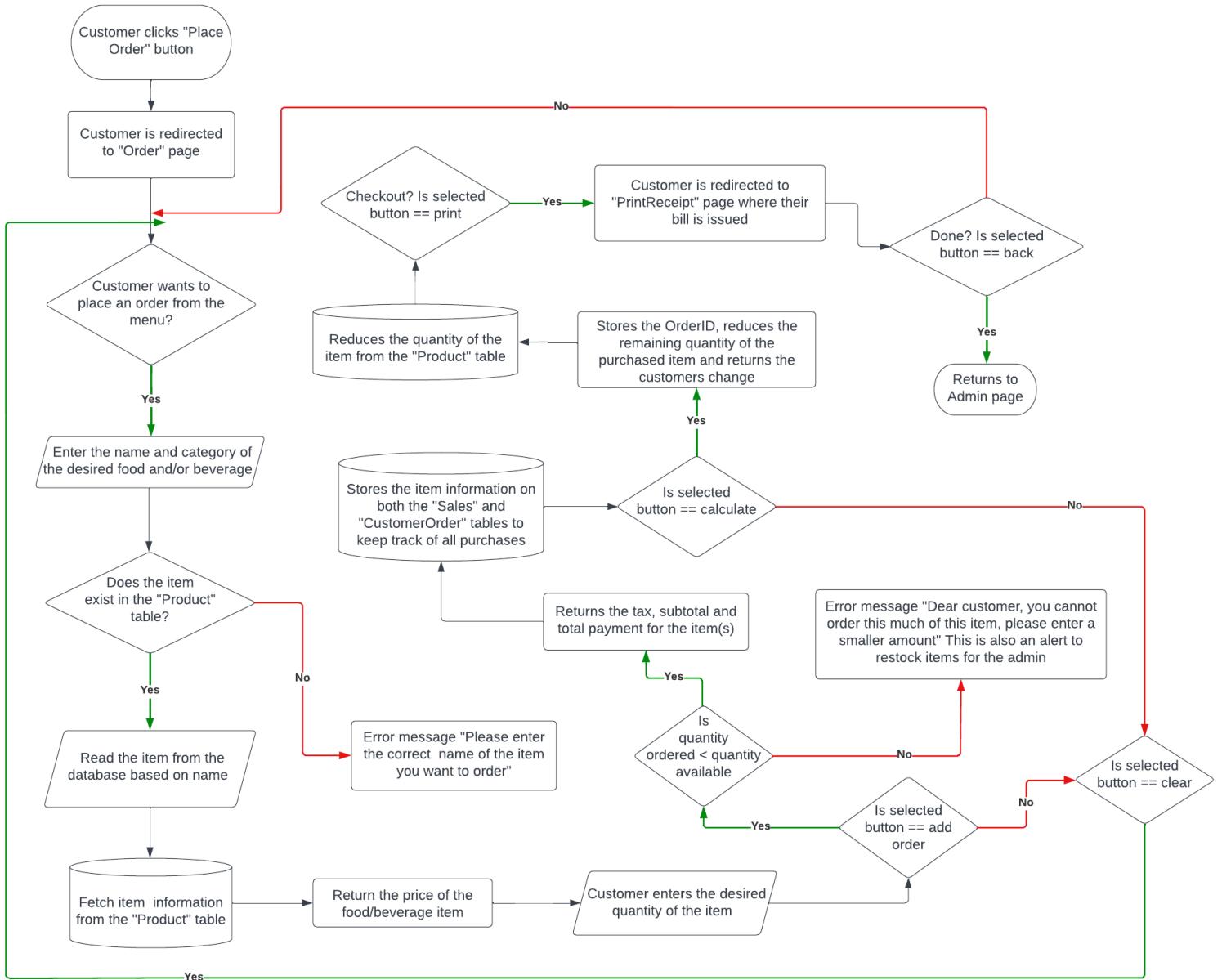
Add Product Flowchart



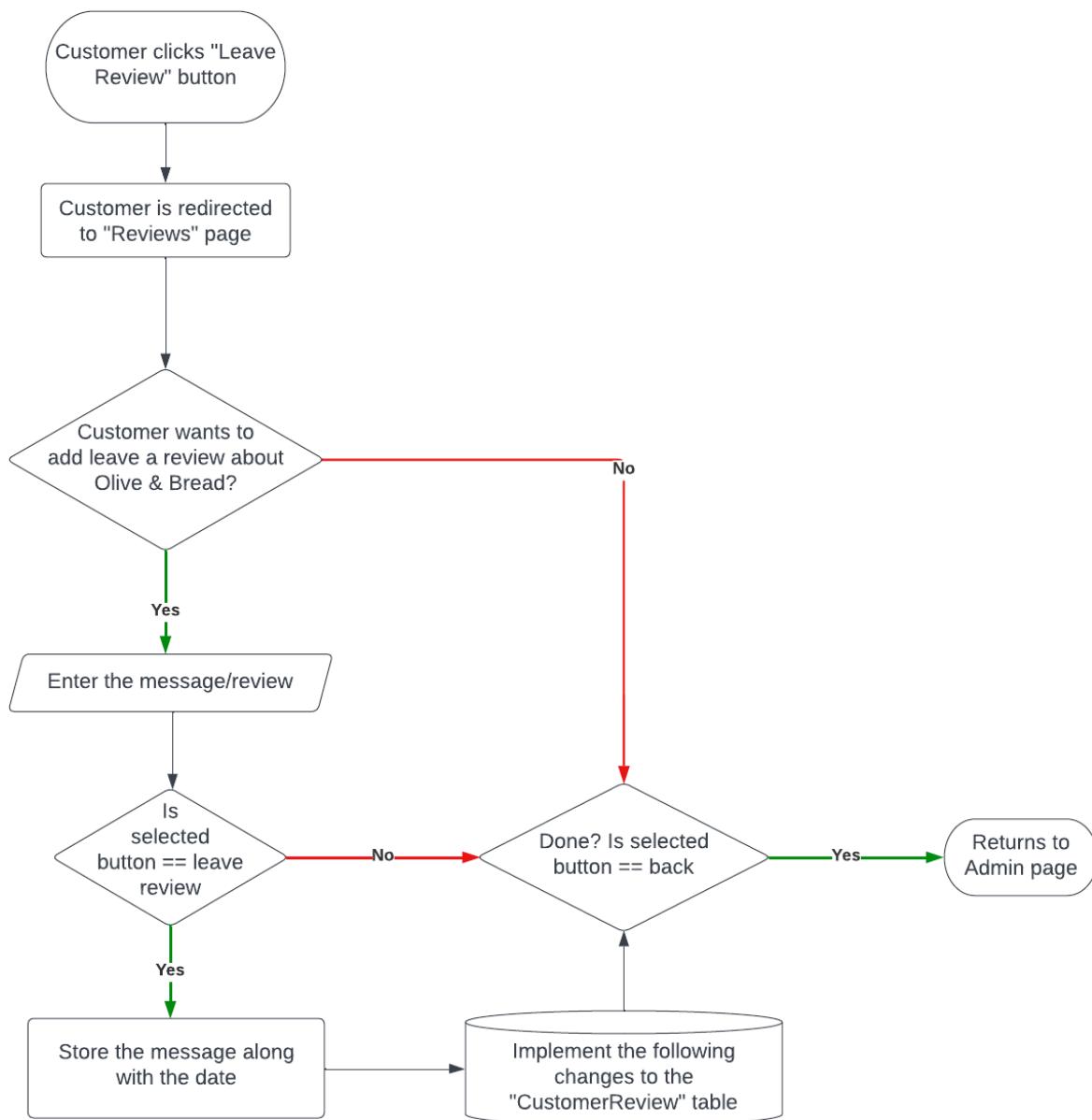
Manage Product Flowchart



Order Flowchart

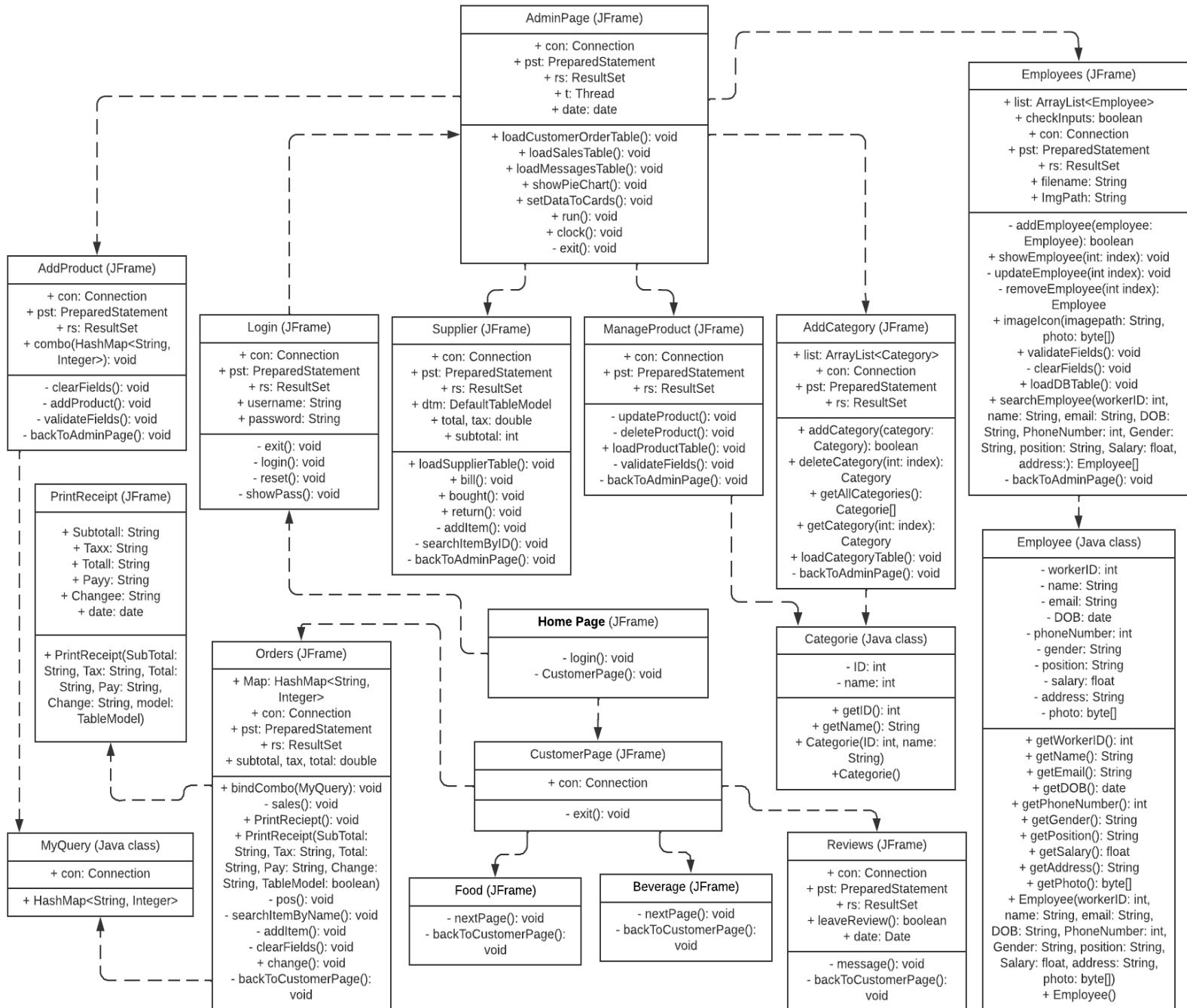


Reviews Flowchart



UML Diagram

(Note: The UML Diagram below was made as I was progressing through the programming rather than prior to that because it was difficult to envision every data structure to be used.)



Data Dictionary

1. Category

Index	Field Name	Data Type	Field length	Description	Example
Primary key	CategoryID	int	30	Auto Incrementing ID to keep track of the categories present in the menu.	0001
	Category	varchar	30	Administrator can add a new category by giving it a name.	Pizza, Pasta, Beer, Soft Drinks

2. Customer Order

Index	Field Name	Data Type	Field length	Description	Example
Primary key	ID	int	30	Auto Incrementing ID whenever an item is bought.	0001
Foreign key	CustomerID	int	30	A unique identifier for each customer that is linked to the primary key of the "Sales" table.	0007
	Name	varchar	30	The name of the item the customer intends to purchase. Only alphabet characters can be entered	Pepperoni, Macchiato, Fanta
	Category	varchar	30	The category of the item the item wants to view before finding the name of the item.	Pizza, Pasta, Beer, Soft Drinks
	Price	float	30	This price will be automatically calculated based on the quantity of the item the customer seeks to buy.	480 ETB
	Qty	int	30	The customer enters the amount of the intended item of purchase. If they enter a number too high, they'll be met with an appropriate error message. Only whole numbers can be entered	3,6,20
	Total	float	30	This total will be calculated based on the price, quantity, tax, and subtotal.	1,486.08 ETB

3. Customer Review

Index	Field Name	Data Type	Field length	Description	Example
Primary key	ID	int	30	Auto Incrementing ID whenever a review is left by the customer.	0004
	Date	date	yyyy-mm-dd	The date the customer left the review.	2022-07-09
	Message	varchar	300	The message the customer wants to send as a review of the Olive & Bread dining experience.	The scenery was amazing, and the waiters were so respectful; however, the fish was a bit salty.

4. Employee

Index	Field Name	Data Type	Field length	Description	Example
Primary key	WorkerID	int	30	Auto Incrementing ID whenever a new employee is added.	0006
	Name	varchar	30	The name of the employee.	Albert Einstein, Jonathan Jacoby
	Email	varchar	30	The email of the employee.	jasonjazz@gmail.com
	DOB	date	yyyy-mm-dd	The employee's date of birth.	Pizza, Pasta, Beer, Soft Drinks
	PhoneNumber	int	30	The employee's telephone number.	480 ETB
	Gender	char	5	It is optional for the employee to be referred to as male or female.	3,6,20
	Position	varchar	30	The employees role in Olive & Bread	1,486.08 ETB
	Salary	int	30	The employee's monthly payment.	18,420 ETB
	Address	varchar	50	The residence of the employee.	Mars, Rockmeadow Avenue, 93840
	Photo	longblob	byte	ID size photo to identify the employee.	An ID photo

5. Login

Index	Field Name	Data Type	Field length	Description	Example
Primary key	ID	int	30	The administrator's ID.	0001
	Username	varchar	30	The administrator's username.	AdminPierre
	Password	varchar	300	The admin's password.	pass1234

6. Product

Index	Field Name	Data Type	Field length	Description	Example
Primary key	ProductID	int	30	Auto Incrementing ID whenever a new product is added to the menu.	0001
	Name	varchar	30	The name of the product.	Pepperoni, Macchiato
	Category	varchar	30	The categories that contain the products.	Pizza, Pasta, Beer
	Price	float	30	How much the product costs.	240 ETB
	Qty	int	30	How much of the product is initially added.	1, 4, 15
	Description	varchar	300	What the food is made out of.	Fresh tomatoes, salt, 2 eggs, and mashed potatoes on the side.

7. Sales

Index	Field Name	Data Type	Field length	Description	Example
Primary key	CustomerID	int	30	Auto Incrementing ID to uniquely identify the customer. It is linked to the foreign key in the "CustomerOrder" table.	0001
	Date	date	yyyy-mm-dd	Date of purchase of food and/or beverages	2022-08-12
	Total	float	30	The total charge for the customer's purchase.	1212 ETB
	Paid	int	30	The amount the customer pays.	1,250 ETB
	Balance	varchar	30	The customers change/return after making their purchase.	38 ETB

8. Supplier

Index	Field Name	Data Type	Field length	Description	Example
Primary key	ID	int	5	Auto Incrementing ID to uniquely identify any product the administrator wants to buy from their suppliers.	0001
	Barcode	int	30	The barcode of the item would prompt the name and price of the product to appear accordingly. Only integer values can be typed in this field.	0012
	ProductName	varchar	30	The name of the item.	Heinz Ketchup, Bacardi Rum
	Price	int	30	The price of the item.	1,020 ETB

Testing Plan and Error Checking

Success Criteria	Action	Method of testing	Outcome
1	Placing an order from the menu.	User types the item's name into the "name" JTextField in the "Orders" JFrame.	It responds with the corresponding price of the item. Thereafter, the user simply clicks on the "add order" button to place the order.
2	Issuing a receipt for the order(s) placed.	User clicks on the "calculate change" button after making the payment in the "pay" JTextField. Finally, clicking the "print receipt" button allows the user to view their order details.	Clicking the "print receipt" button triggers a new JFrame called "PrintReceipt" to open with the details of the user's order(s).
3	Admin keeps track of orders through an auto incrementing ID.	The user clicks on the "print receipt" button in the "Orders" JFrame.	The user will automatically be given a number; that number is their ordering ID. This data will be saved into the "Sales" and "CustomerOrder" database tables, which are present in the "AdminPage" JFrame.
4	Admin keeps track of the remaining items available.	The user clicks on the "print receipt" button in the "Orders" JFrame.	The quantity of the remaining item(s) in stock (the database) will be reduced, and this message pops up by a JOptionPane when an order has been issued a receipt. The amount of remaining items can be checked in the "ManageProduct" JFrame.
5	Admin purchases items from Supplier.	User enters the item's ID number into the "ID" JTextField in the "Supplier" JFrame.	This prompts the "name" and "price" fields to respond accordingly to their item IDs. Thereafter, the user clicks on the "add" button to add the item to the cart and the "print" button to complete the purchase of the item(s) from the supplier.
6	Adding a new category.	User enters the name of a category and clicks on the "add" button.	The added category will be stored in the database table "Category," which can be seen in the "AddCategory" JFrame.

7	Adding a new product.	User enters the category, name, price, and description of the product to be added, then clicks the “add” button.	This new product will be added to the category of the user’s choice. The product’s information (its ID, category, name, price, remaining quantity, and description) is stored in the “Product” database, which is available in the “ManageProduct” JFrame.
8	Managing a product.	1) User selects a product and clicks the “update” button. 2) User selects a product and clicks the “remove” button.	1) A product will be updated as per the administrator’s decision. 2) The selected product will be removed from the database.
9	Login authentication.	The user enters the username and password.	The user has access to the “AdminPage” only if the username and password are entered correctly.
10	User interfaces for the admin and customer pages are simple to use.	Select users of varying ages and computing experience to beta-test the program’s user-friendliness.	Every user was able to easily navigate back and forth through the administrators’ and customers’ respective pages.
11	Managing an employee.	1) The user fills in the information in the “Employee’s” JFrame jtextfields and clicks the “add” button. 2) The user selects an employee then clicks the “update” button. 3) The user selects an employee and clicks the “remove” button.	1) A new employee will be added. 2) An existing employee’s information that has been altered will be updated. 3) An existing employee will be removed from the restaurant.
12	Searching for an employee.	All of the search values (searches by name, address, DOB, gender, phone number, salary, ID, email, and address) will be entered in the “search” jtextfield.	An employee can be searched for by any search value entered in the “search” jtextfield.
13	Leaving a review	The user enters the intended message in the jtextarea.	The customer can leave any message about Olive & Bread for the administrator to read.