Sequence Diagram

Feature 1: Table Management

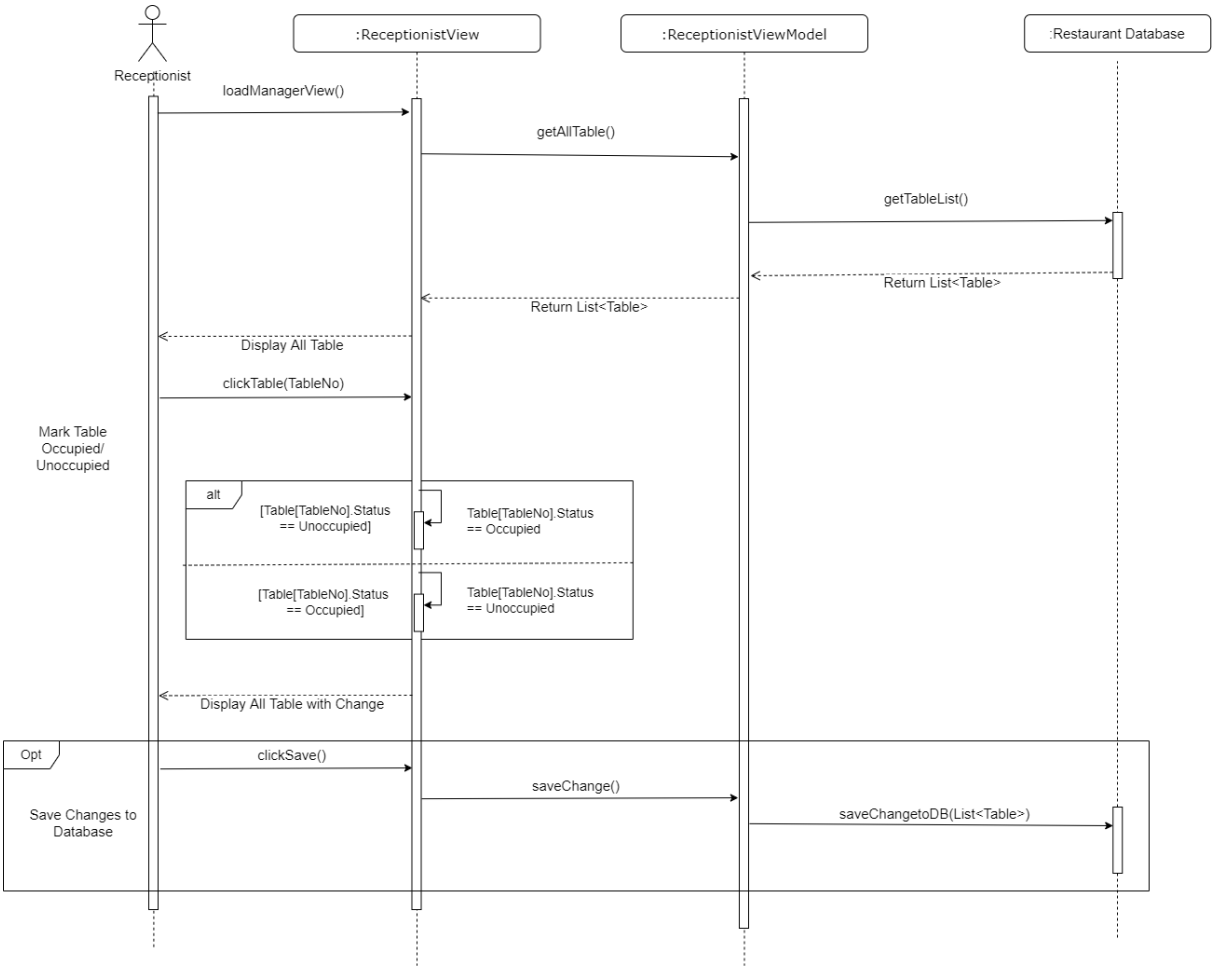


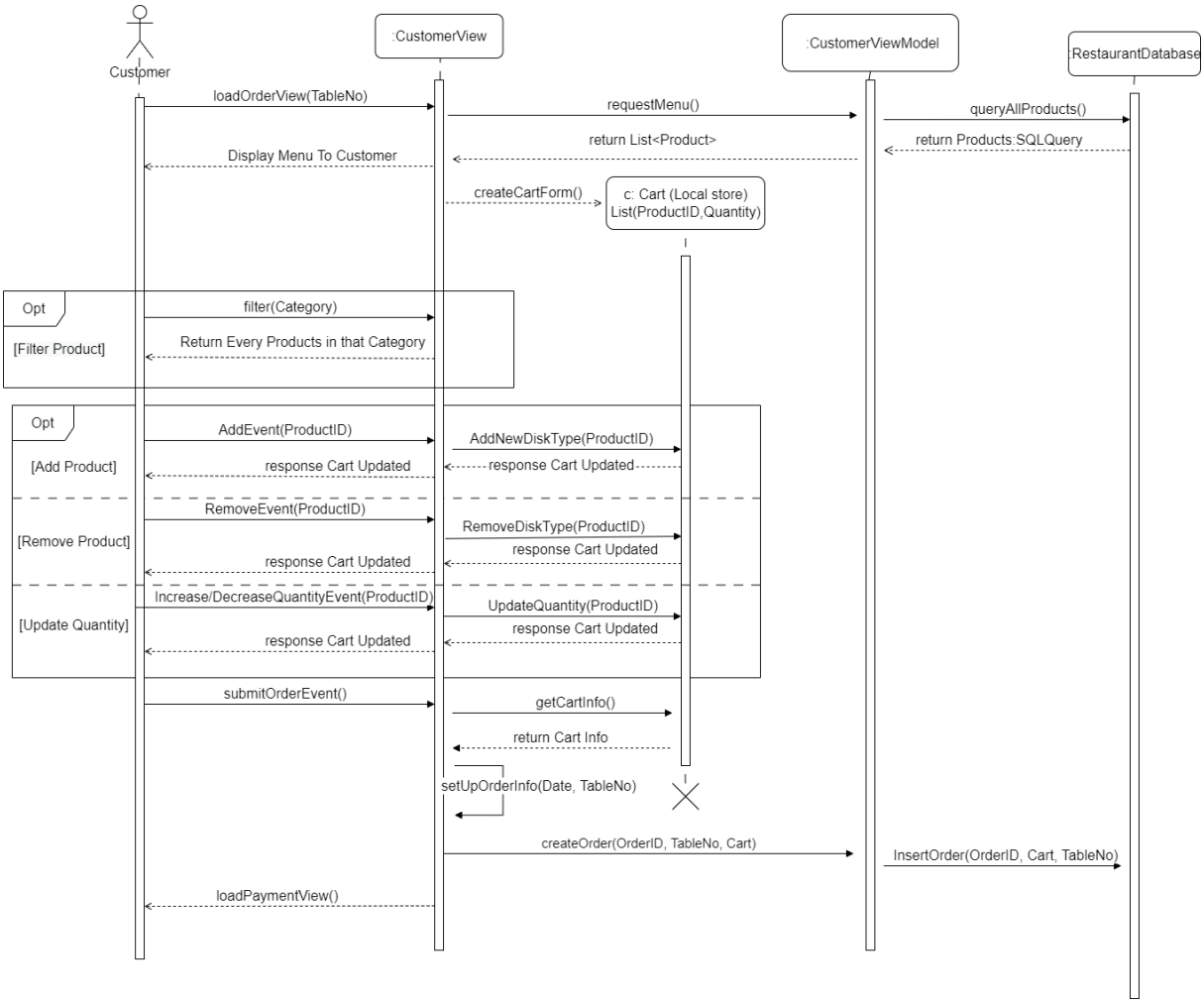
Table Management Sequence Diagram (Link image)

The sequence diagram above presents Table Management Sequence:

1. The receptionist opens the Receptionist Tab to see all the table's status. System sends a request to get the status of all table lists from Database by GetAllTable() and the system returns a List<Table> (Table contains Table Number and Table Status).
2. A table status list will display on the screen to show all the tables with it's status.
3. Now, the receptionist can do as following:

- The receptionist presses the update button below a table, its status will change from Occupied to Unoccupied or vice versa , this change will be saved locally on the View Model class. After updating the table status successfully, the system will show the table list again with changes.
- The receptionist clicks the Save button (clickSave()) to save changes made locally to the Database system. The receptionist can continue to update another table or can choose to exit.

Feature 2: Order System (Make Order - Customer View)

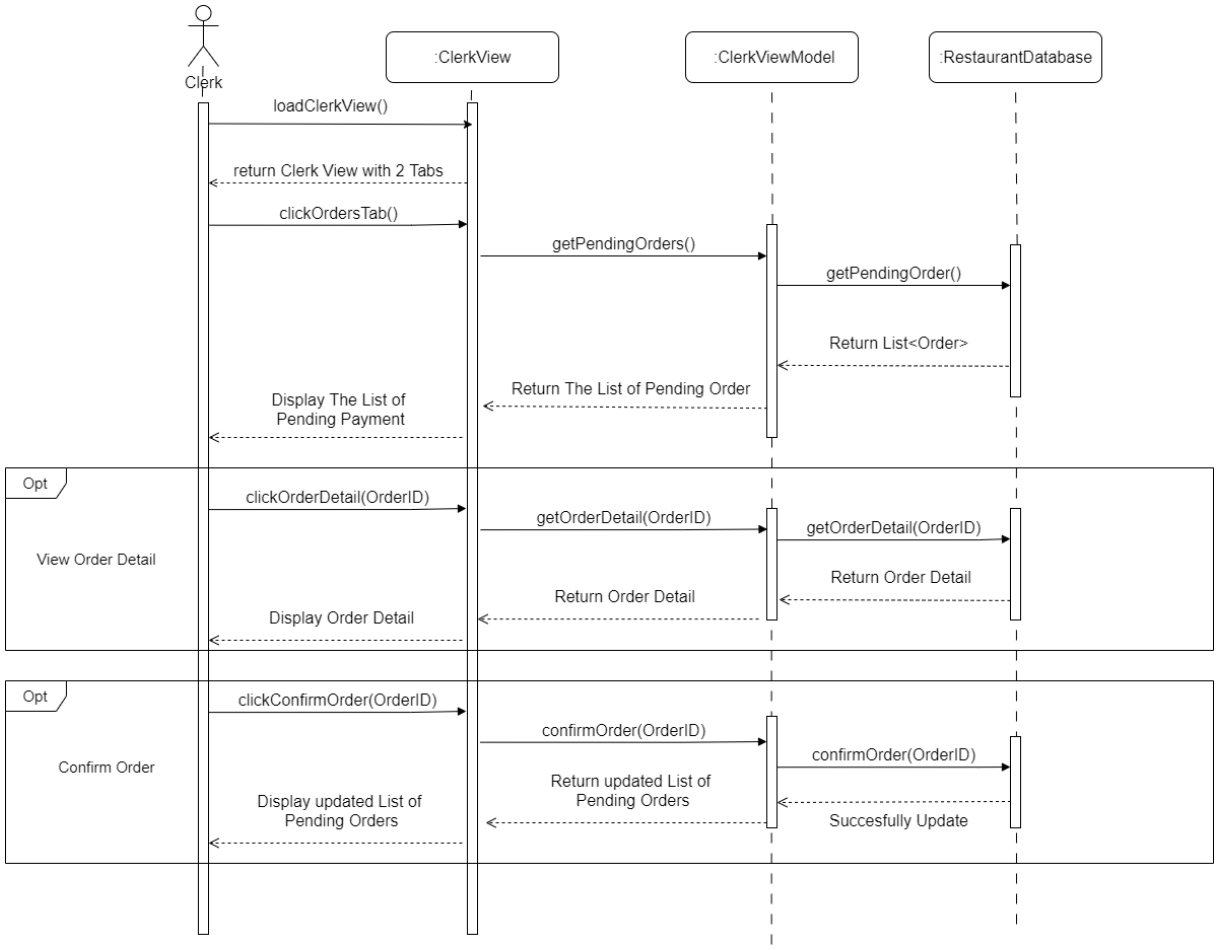


Order System Sequence Diagram - Customer (Link image - Main Make Order)

The sequence diagram above presents the Make Order process:

1. After the customer accesses the table through QR code, Customer View UI will render at the customer screen. Before displaying, the Customer View-Model will request to the Restaurant Database for Menu Info
2. A Cart object will be created and stored at customer local device to save the info about current order
3. Customers can view the menu and filter dishes according to category. Customers can update the quantities and click the add button to add the disk into the cart or remove added disk from the cart.
4. After finishing choosing the order, the customer clicks the submit button and the Order object will be created with information of Date time, Cart, Table number of the table that made this order, state as ‘pending’ state and inserted into the database.

Feature 2: Order System (Confirm Order - Clerk View)

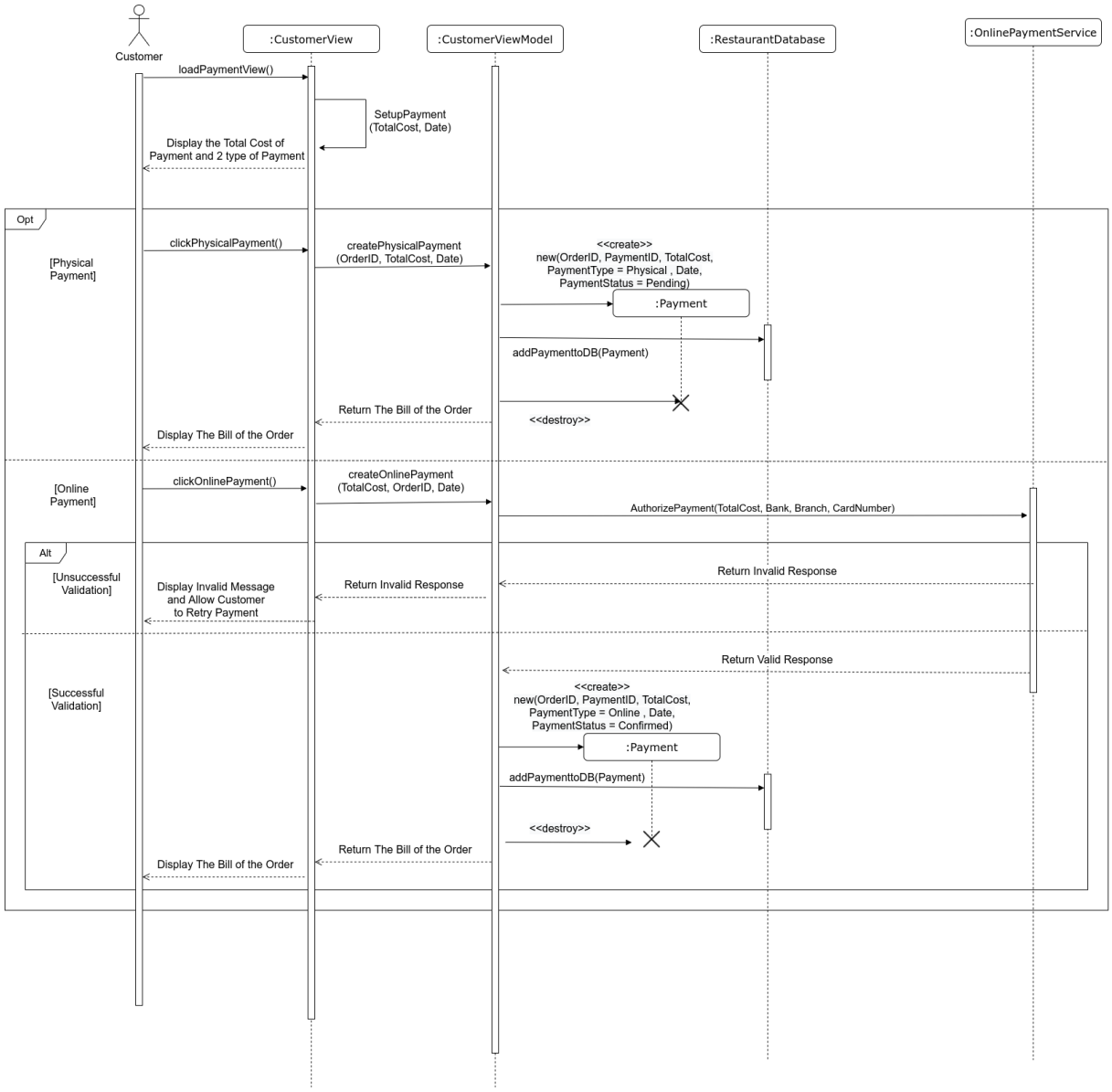


Order System Sequence Diagram - Clerk (Link image - Main Manage Order)

The sequence diagram above presents the Confirm Order process:

1. Clerk opens the Clerk View and open View Pending Order
2. Clerk clicks the refresh button to load new pending orders from the database
3. Clerk views the detail the order and asks the kitchen to make the order
4. When the kitchen has finished the order, the clerk click confirms on the order, set the order's state to 'confirmed' in the database

Feature 3: Making Payment (Make Payment - Customer View)



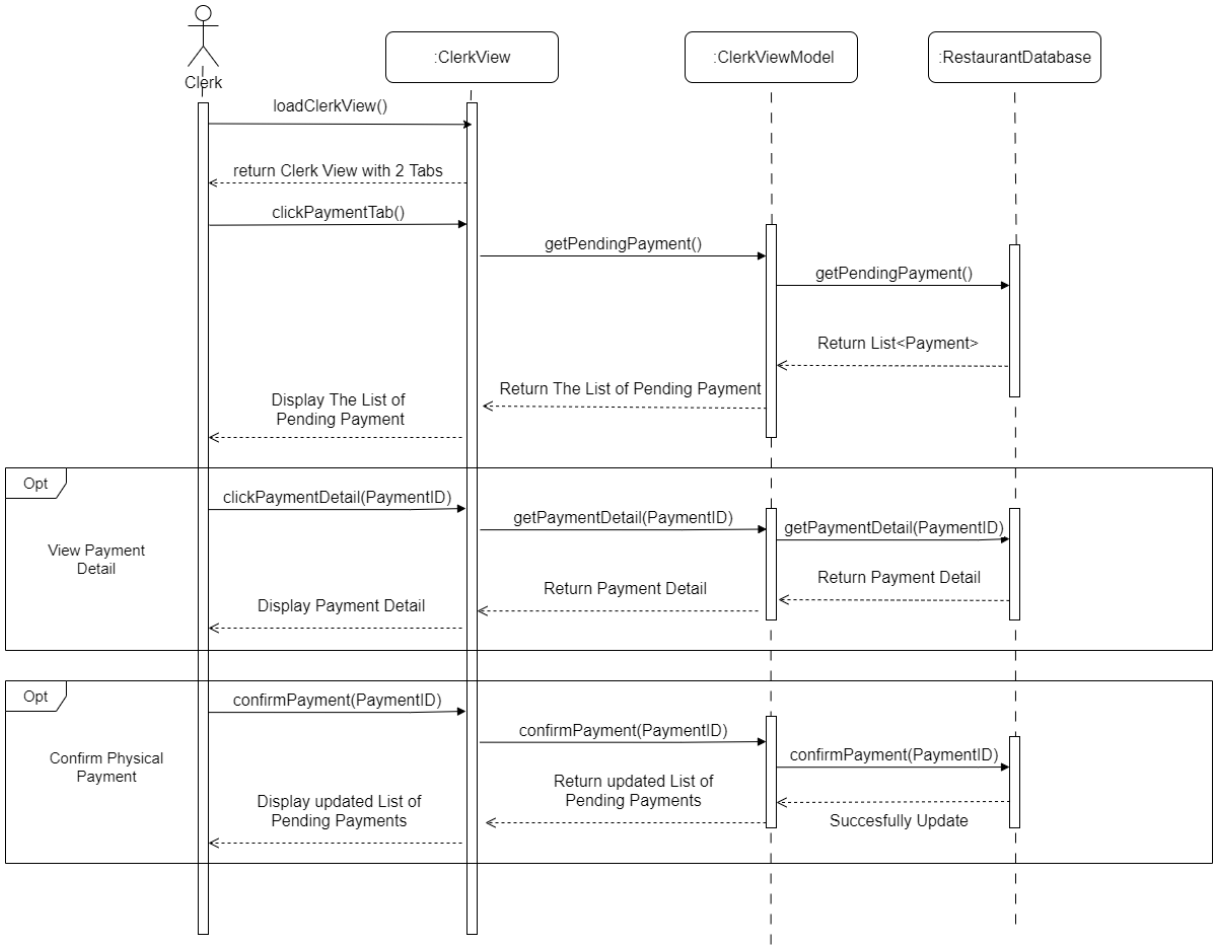
Making Payment Sequence Diagram - Customer (Link image - Customer)

The sequence diagram above presents Make Payment process:

1. Customers choose to make their payment, (clickPaymentTab() is called and directs them to the payment page) after receiving the request, Customer View Model retrieves the order information, calculates their bills and displays 2 payment option
2. Customers can choose between two payment methods:

- If customers choose to make physical payment, “clickPhysicalPayment()” is called, their payment request is sent to the Customer View Model to handle (createPhysicalPayment()). Customer View Model creates a payment object storing payment information, stores it to the database and customers are directed to the bill page
- If customers choose to make online payment, “clickOnlinelPayment()” is called, their payment request is sent to Customer View Model to handle (OnlinePayment()), then send payment request to an online payment service to authorize the transaction (AuthorizePayment(TotalCost)), the service handles the transaction and returns back validation information to the system.
- If online payment is invalid, customer view will navigate back to the payment page, customer can choose to make online payment again or change to physical payment.
- If online payment is valid, payment object will be created and store their payment information to the database and customers are directed to the bill page

Feature 3: Making Payment (Confirm Payment - Clerk View)

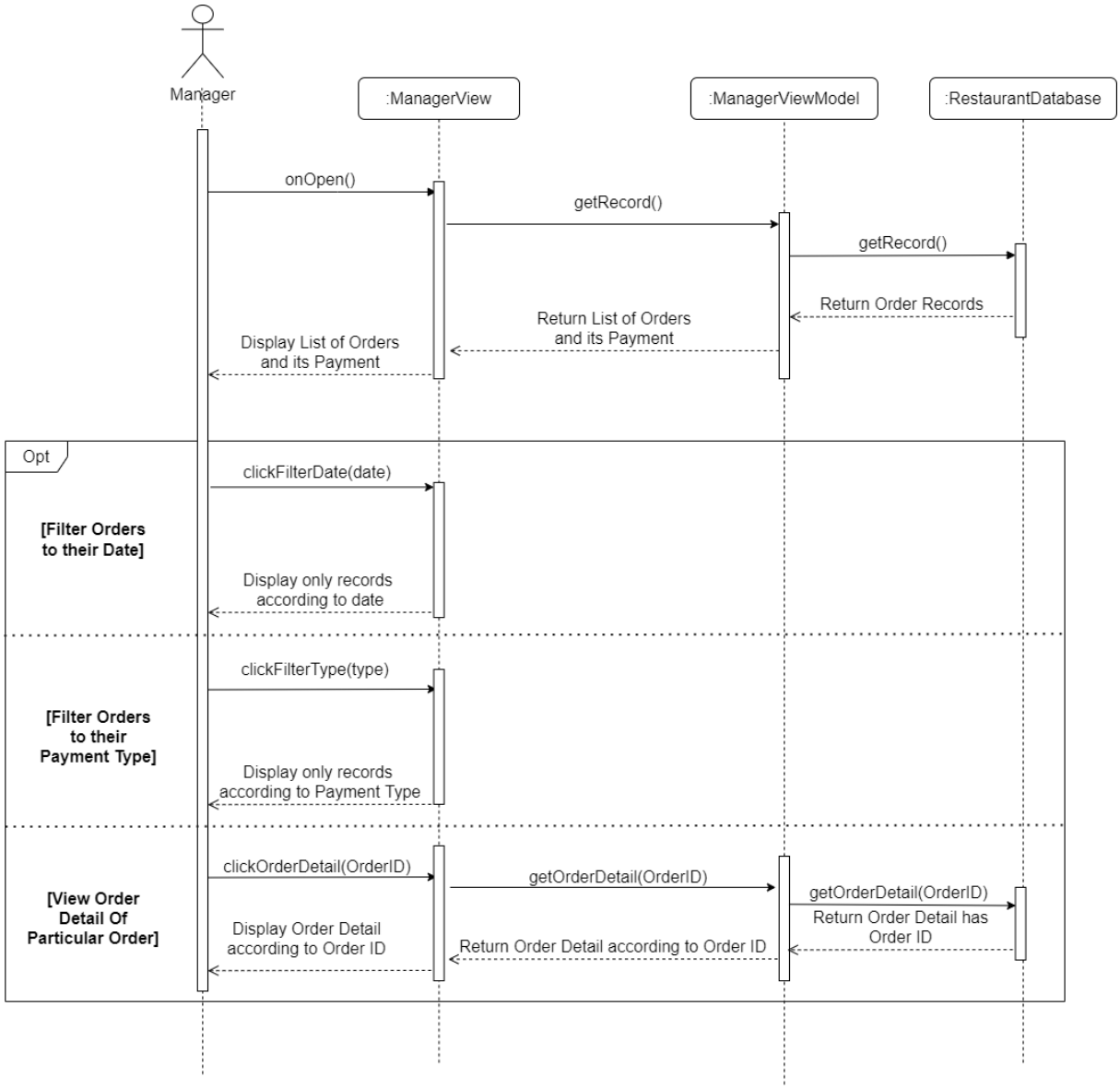


Making Payment Sequence Diagram - Clerk (Link image - Clerk)

The sequence diagram above presents the Confirm Physical Payment process:

1. Clerk opens the Clerk View and open View Pending Payment
2. Clerk clicks the refresh button to load new pending payments from the database through “getPendingPayment()”
3. Clerk views the detail the order and asks the kitchen to make the order
4. When the kitchen has finished the order, the clerk click confirms on the order, set the order’s state to ‘confirmed’ in the database

Feature 4: View Order History



View Order History Sequence Diagram (Link image)

The sequence diagram above presents the View Order History process:

1. The manager gets access to the manager view.
2. The system loads the data obtained by method (getRecord()) to the manager view.
3. The Manager View-Model handles that request by sending a request to the Database.
4. The Database returns Orders and Payment to the Manager View-Model and Manager View-Model sends to the Manager view.
5. If the manager chooses to filter Orders and its Payments by date or payment type (filterDate(date), filterType(type)), the filter request is handled by the Manager View
6. If the manager chooses to view Order Detail, Manager View send the request to Restaurant Database through Manager View-Model and Restaurant Database returns the Order Detail back to the Manager View to display the order detail