Project Phase 2

Co-Working Space Management System

The Final Group

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Revision Log

Revision of the 1st phase deliverables accompanied by a list of modifications and their justifications.

1.) Use Case Diagram	
1.1	Removed include relationship and use case named "Select specific date, time, and capacity" from the use case diagram. : This use case has been removed because it has now been integrated into the same scenario as the "Book workspaces" use case.
1.2	Changed use case named "Edit, update, and suspending profiles" to "Manage Customer Profile". : This modification has been made to consolidate the functionalities of editing, updating, and suspending profiles into a single scenario, which is now represented by the "User Account Management" use case."
1.3	Changed use case named "Can add, delete, and manage employee information" to "Employee Management". : This modification has been made to consolidate the functionalities of add, delete, and manage employee information into a single scenario, which is now represented by the "Employee Management" use case."
1.4	Changed use case named "Refund and Cancel" to "Cancel Booking". : This modification has been made to consolidate the functionalities of cancel and booking into a single scenario, which is now represented by the "Cancel Booking" use case."

1.5	Added use case named "Registration (Employee)" to the use case diagram. : This use case has been added to the diagram to add the Registration function for Employee Account.
1.6	Combined use case named "View the Total Revenue" and "Be able to customize Reports and Analytics" into one use case named "Manage Revenue". : This modification has been made to consolidate the functionalities of view payment record, get total revenue, and view revenue report into a single use case, which is now represented by "Manage Revenue".
1.7	Added use case named "Manage detailed Information of Co-Working Space" to the use case diagram. : This use case has been added to the diagram to let the employee be able to add, edit, and delete Co-Working Space and manage stock.

2.) Context Diagram / Data Flow Diagram Level 0	
2.1	Group External Entities "Banking API" and "True Wallet" together : This change is implemented because these two functionalities share identical input and output data flows.
2.2	Change External Entities named "CCTV" to "CCTV System". : This change is enacted to clarify that we are referring to the entire CCTV system and not just individual cameras, aligning with our data flow requirements.

<table>
<tr><td>2.3</td><td>Changes of data in "Manager Employee" Entity<table>
<tr><td>2.3.1</td><td>Group External Entities "Banking API" and "True Wallet" together

: This change is implemented because these two functionalities share identical input and output data flows.</td></tr>
<tr><td>2.3.2</td><td>Change External Entities named "CCTV" to "CCTV System".

: This change is enacted to clarify that we are referring to the entire CCTV system and not just individual cameras, aligning with our data flow requirements.</td></tr>
<tr><td>2.3.3</td><td>Added "Reservation Info" as an output from the System.

: This data has been added as an output to provide information on reservations.</td></tr>
<tr><td>2.3.4</td><td>Added input "Registration Employee Info, Role, Username, Password".

: This data has been added to manage employee account information.</td></tr>
<tr><td>2.3.5</td><td>Added "Footage" output from the system.

: This data has been added to capture and share relevant video data.</td></tr>
</table></td></tr>
<tr><td>2.4</td><td>Changes of data in "Customer" Entity<table>
<tr><td>2.4.1</td><td>Added output "Co-Working Space Details" from the System

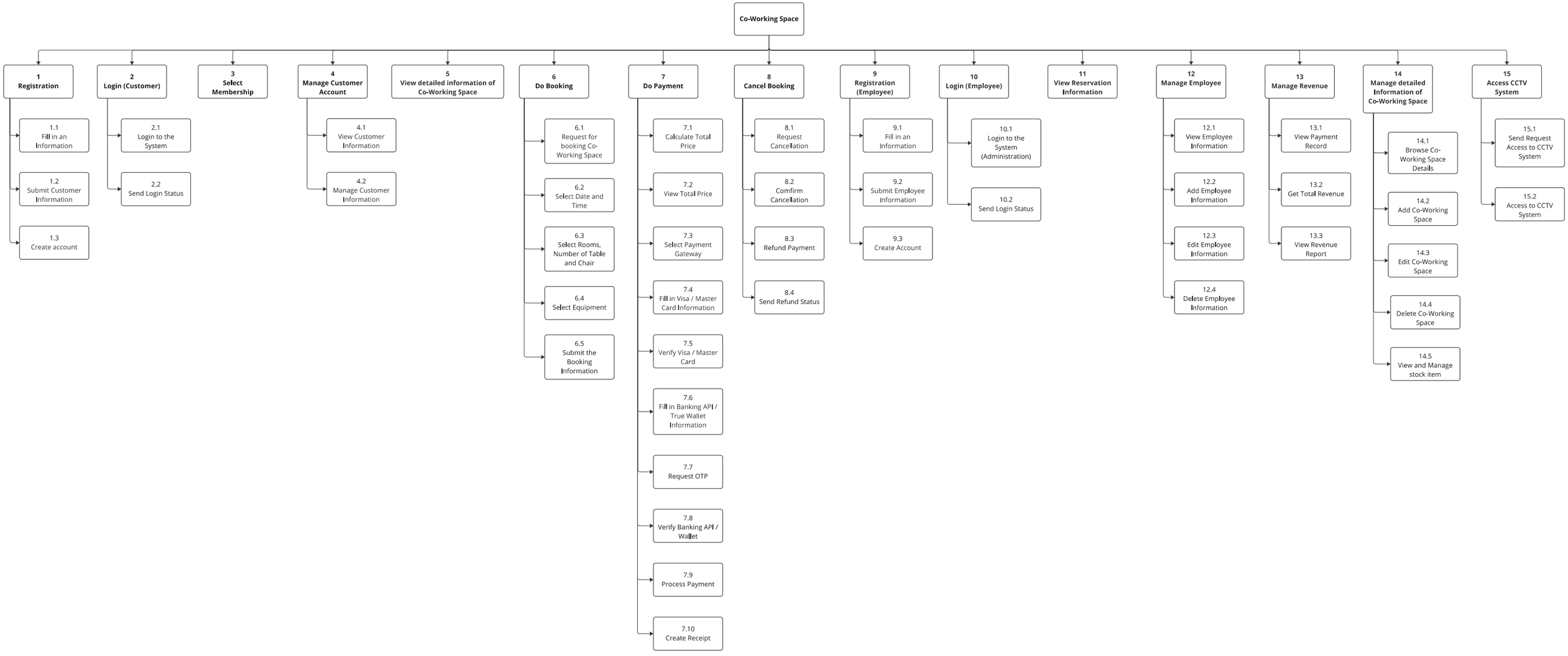
: This data has been added to provide customers with workspace information.</td></tr>
</table></td></tr>
</table>

	2.4.2	Added output "Refund Status" from the System : This data has been added to communicate refund progress to customers.
	2.4.3	Added output "Payment Receipt" from the System : This data has been added to provide payment confirmation and documentation.
2.5	Changes of data in "Email Authentication" Entity	
	2.5.1	Removed the output "Payment Info". : This data has been deleted as it was not relevant to the email authentication.
	2.5.2	Removed the output "User Verification". : This data has been deleted as it was not relevant to the email authentication for registration.
2.6	Changes of data in "Employee" Entity	
	2.6.1	Added input and output "Co-working space details" to/from the System. : This data has been added to combine it with the "Available Stock Item" to show information of Co-working.
	2.6.2	Added input and output "Update Co-working space Info" to/from the System. : This data has been added to capture changes in stock item availability.

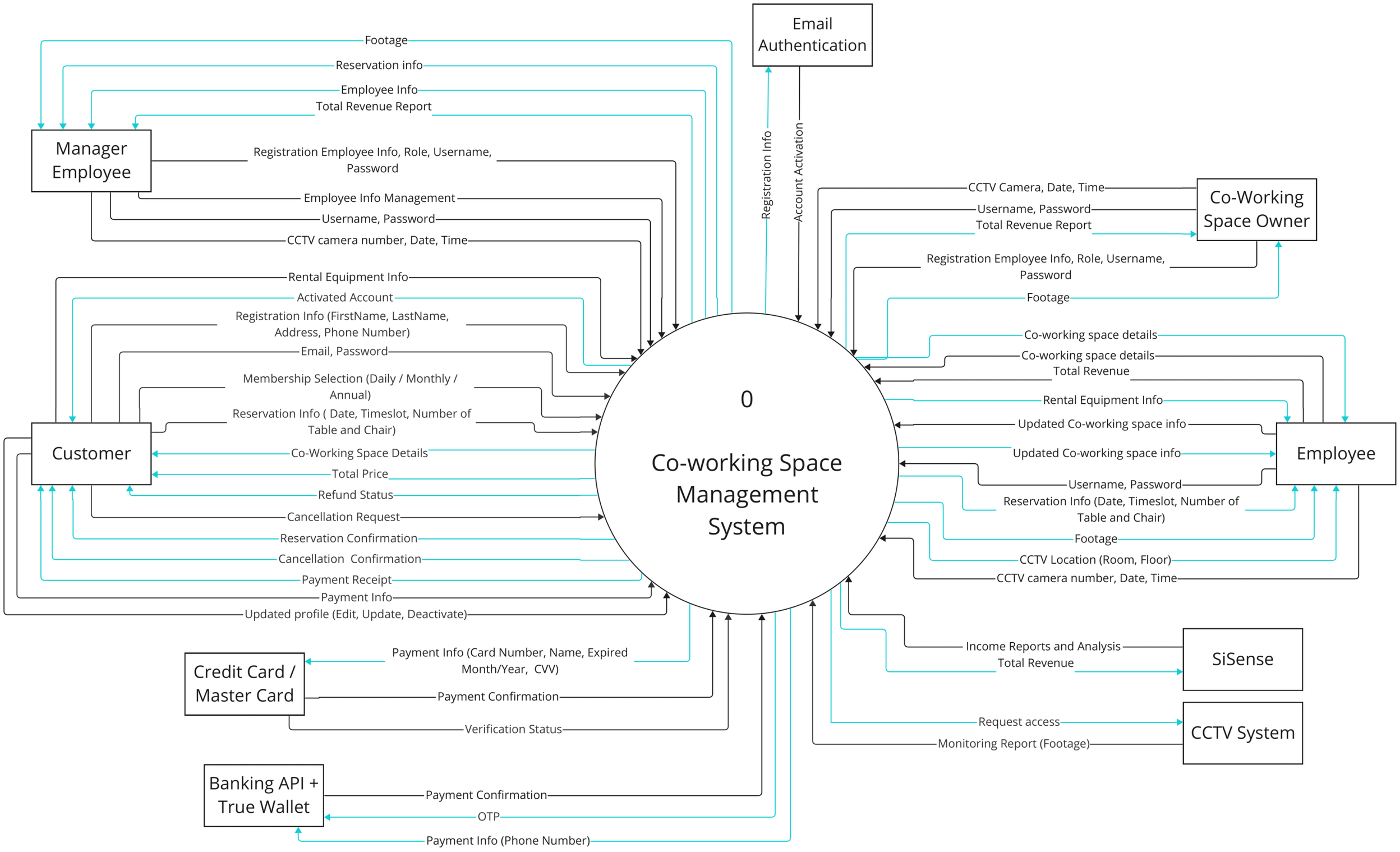
	2.6.3	Added "Footage" output from the system. : This data has been added to capture and share relevant video data.
	2.6.4	Added input "CCTV camera number, Date, Time" to the System : This data has been added to input fields for "CCTV camera number, Date, Time" to facilitate tracking of CCTV Footage.
	2.6.5	Added "CCTV Location (Room, Floor)" output from the system. : This data has been added to ask for Room and Floor of the wanted footage.
2.7	Changes of data in "CCTV System" Entity	
	2.7.1	Removed the output "Staff Identification". : This data has been deleted as it was not needed for the CCTV System to identify anything.
	2.7.2	Changed "Username, Password" to "Request access Output". : This modification has been made to better represent the purpose of this system's output to the CCTV System.
2.8	Changes of data in "Credit Card / Mastercard" Entity	
	2.8.1	Removed the output "Cancel Request". : This data has been deleted as it was not relevant to "Credit Card / Mastercard" Entity.

	2.8.2	Combined "Card Number, Name, Expired Month/Year, CVV" with "Payment Info". : This modification has been made to simplify and consolidate payment-related data.
	2.8.3	Removed the input "Refund Info". : This data has been deleted as it was not relevant to "Credit Card / Mastercard" Entity.
	2.8.4	Added input "Verification Status" to the system. : This data has been added to support card verification processes.
2.9	Changes of data in "Banking API and True Wallet" Entity	
	2.9.1	Removed the output "Cancel Request". : This data has been deleted as it was not relevant to "Banking API and True Wallet" Entity.
	2.9.2	Removed the input "Refund Info". : This data has been deleted as it was not relevant to "Credit Card / Mastercard" Entity.
	2.9.3	Added input "OTP" to the system. : This data has been added to reflect the use of OTPs in the banking API and True Wallet processes.

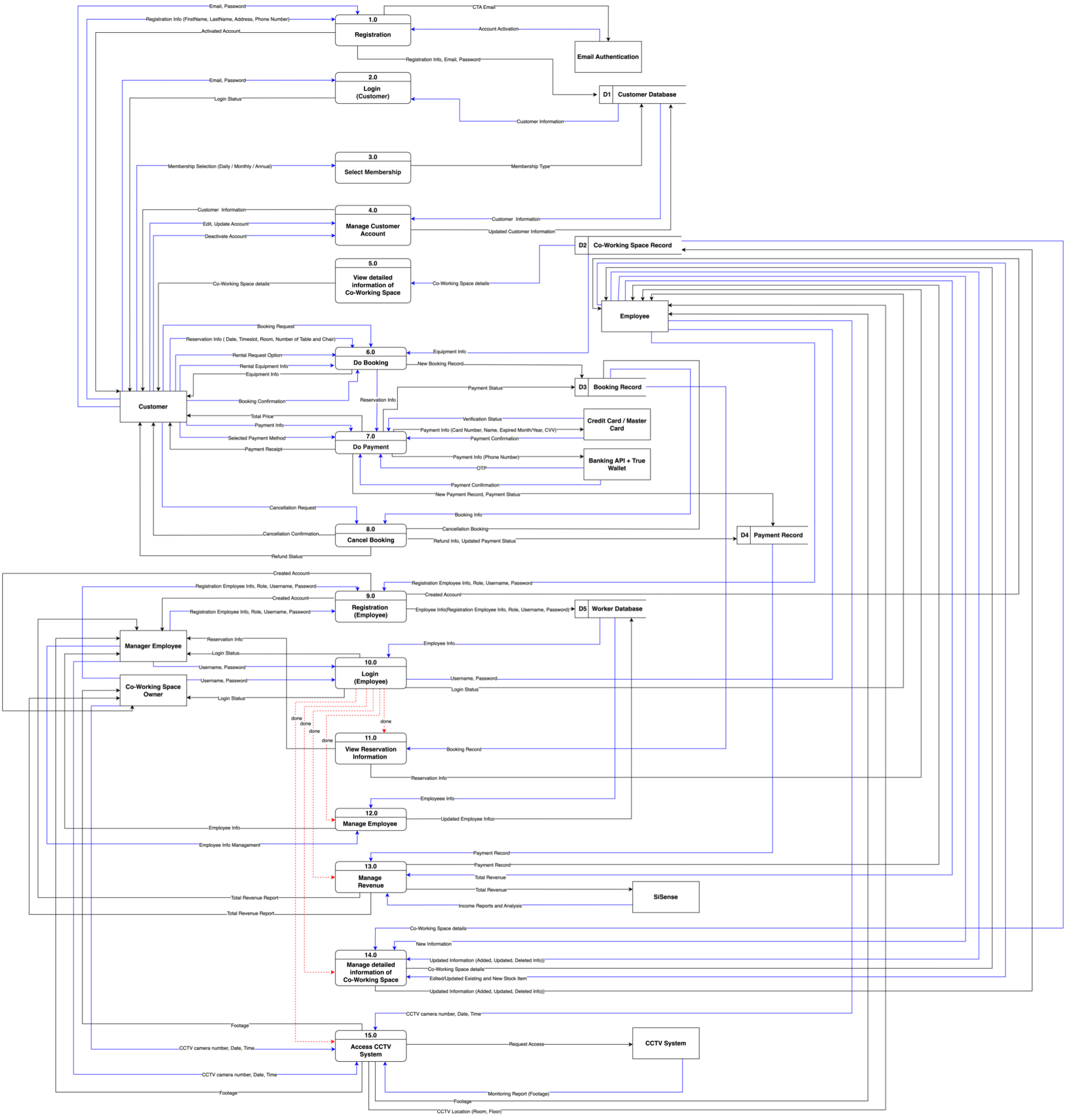
Functional Decomposition Diagram



Data flow Diagram Level 0

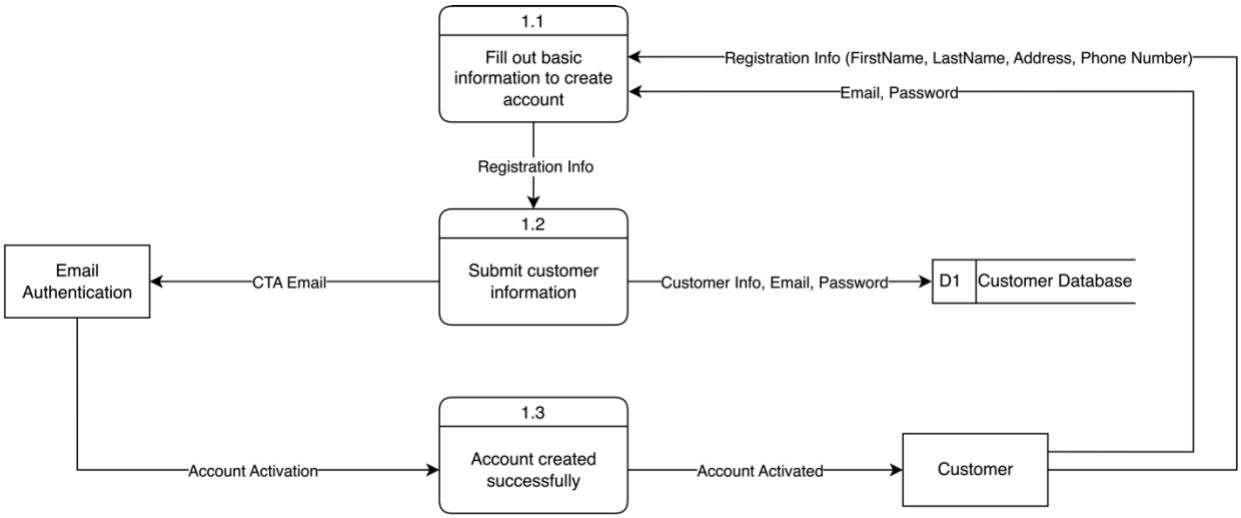


Data flow Diagram Level 1

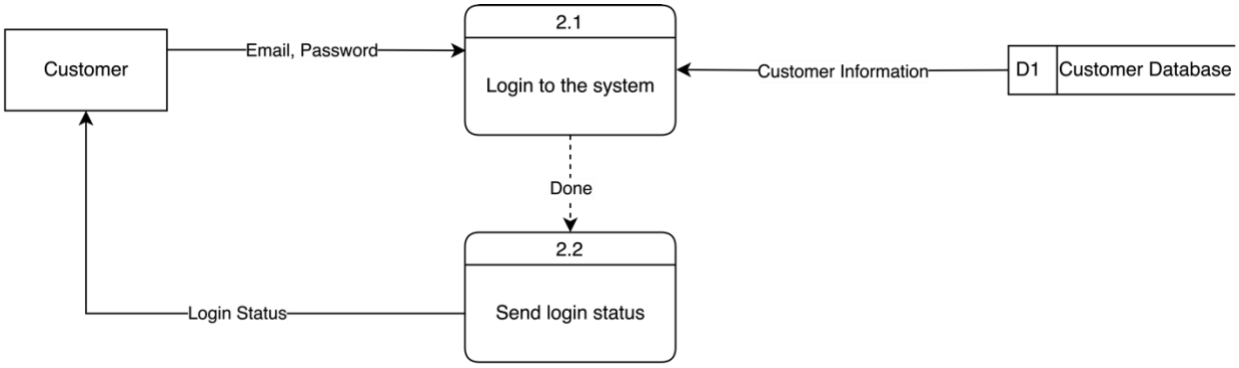


Data flow Diagram Level 2

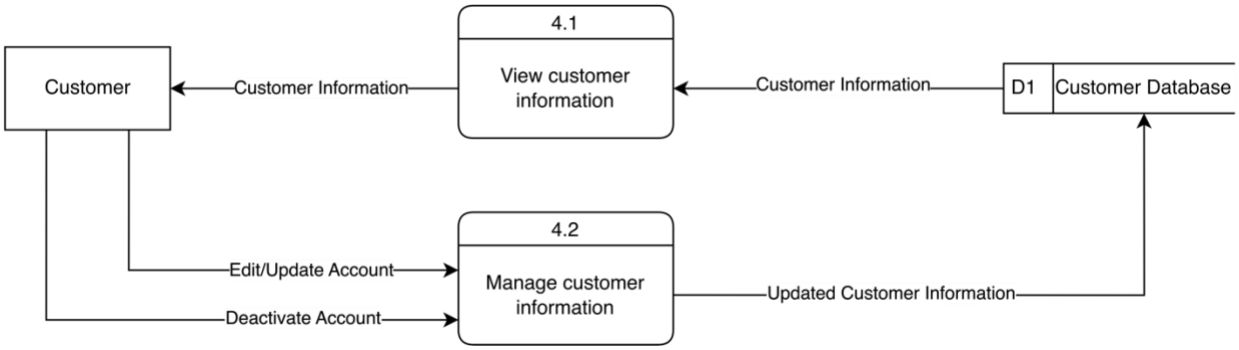
Process 1.0 Registration



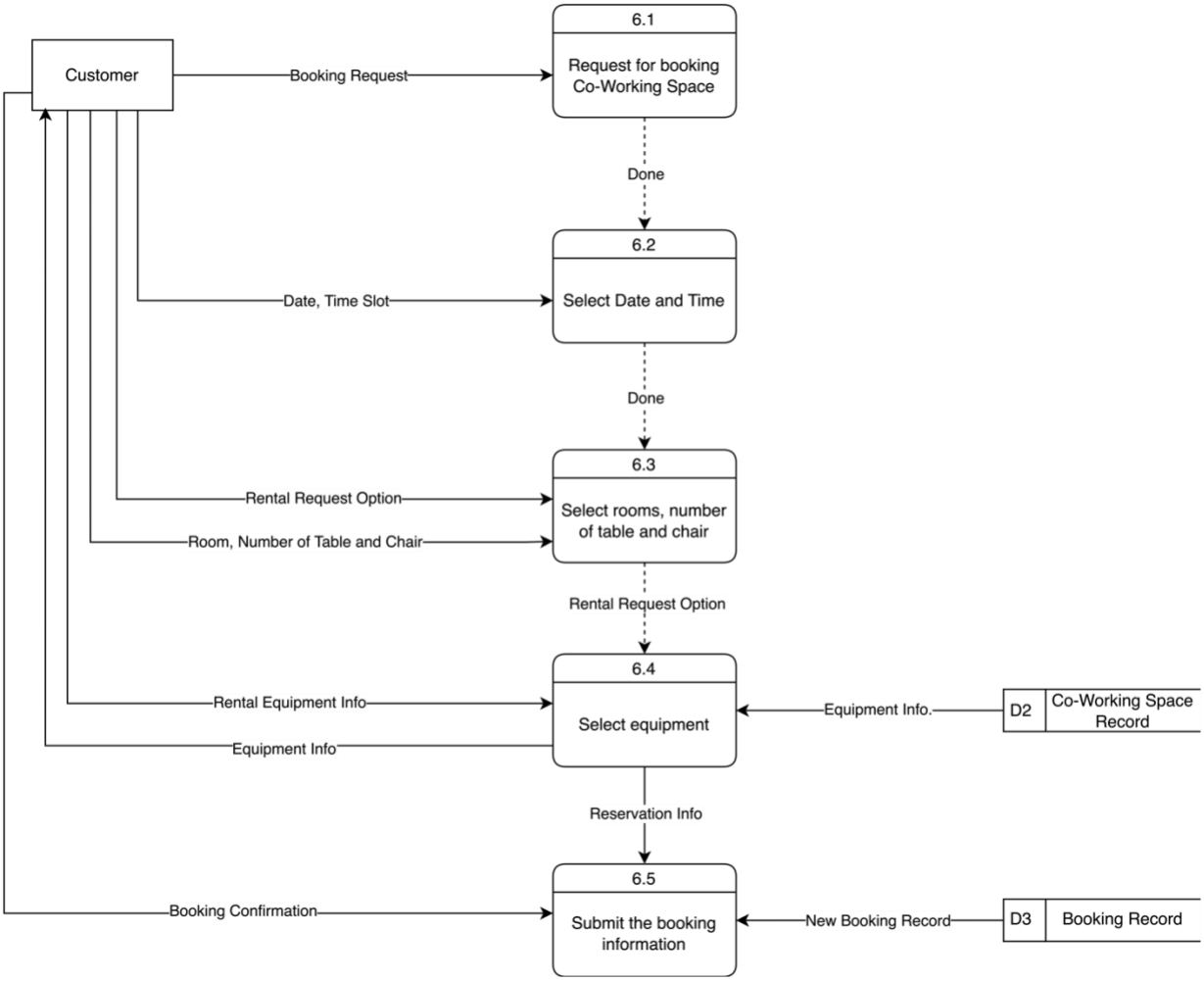
Process 2.0 Login (customer)



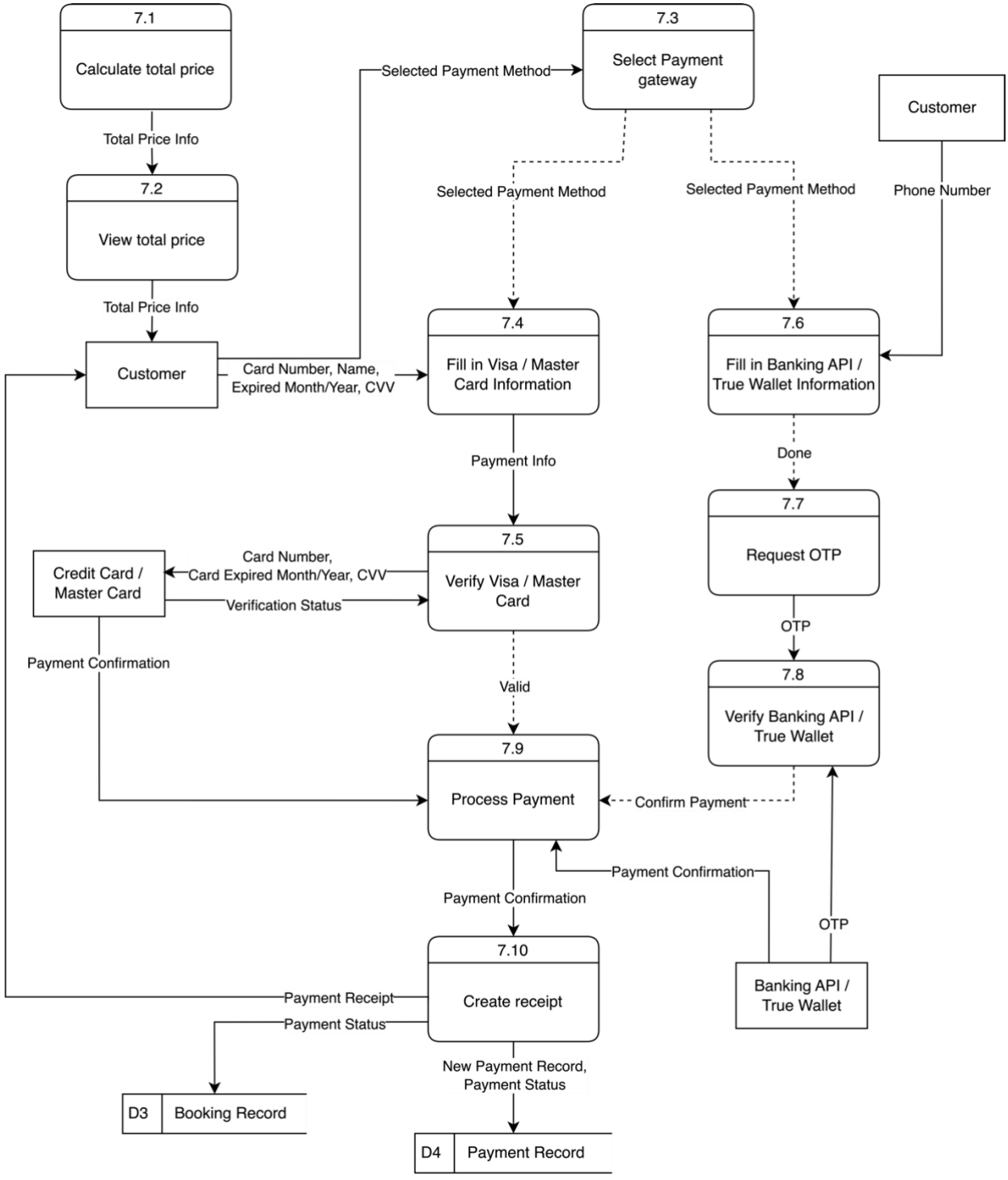
Process 4.0 Manage Customer Account



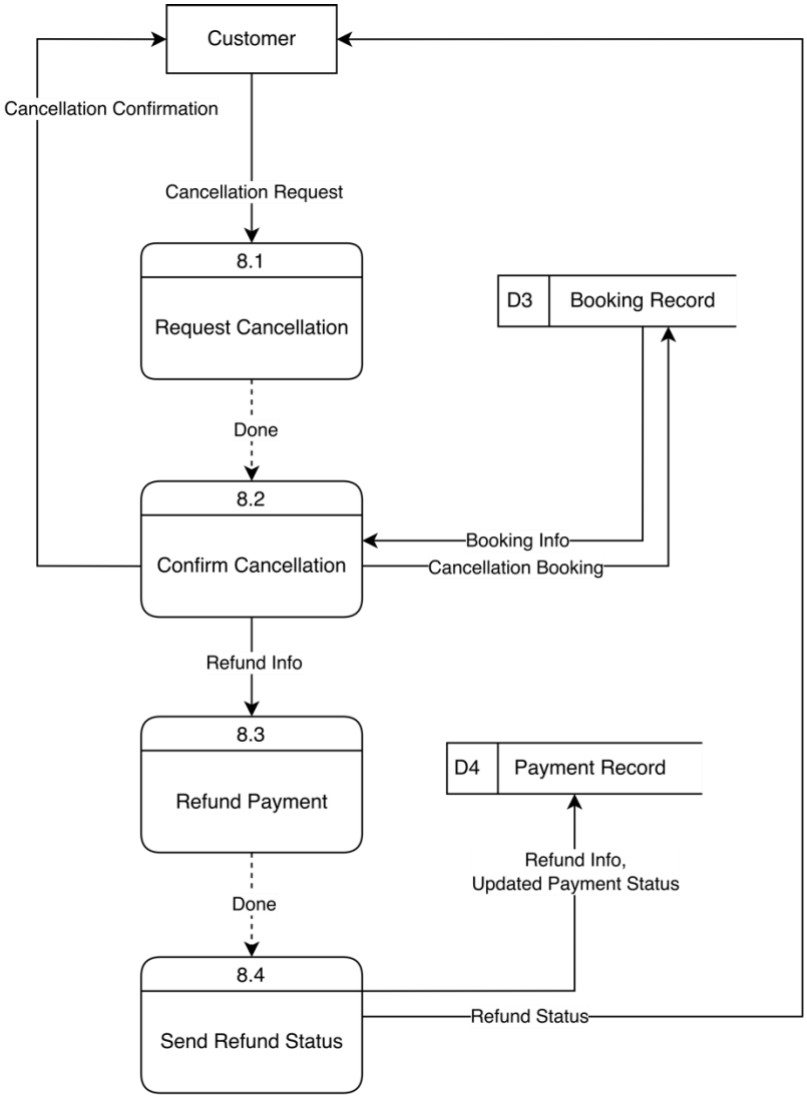
Process 6.0 Do Booking



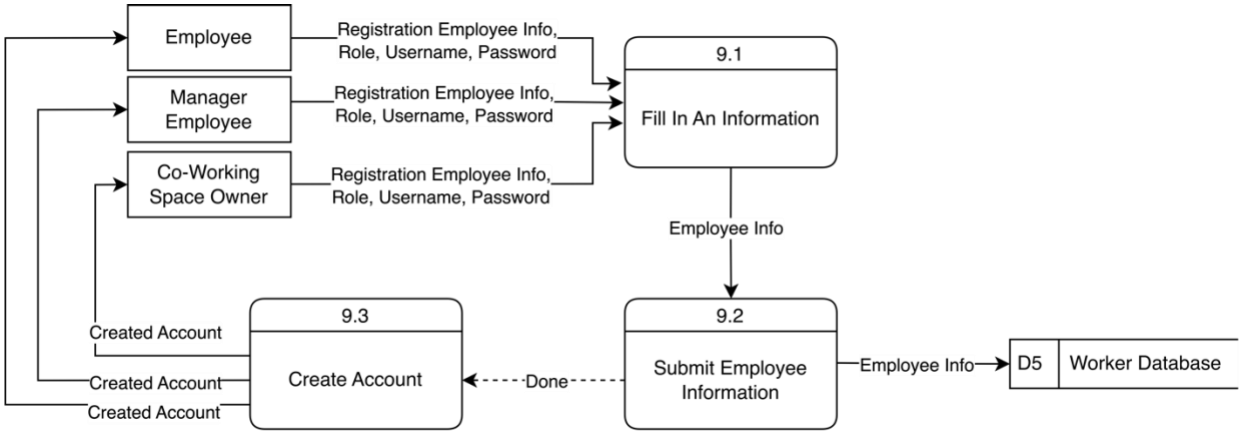
Process 7.0 Do Payment



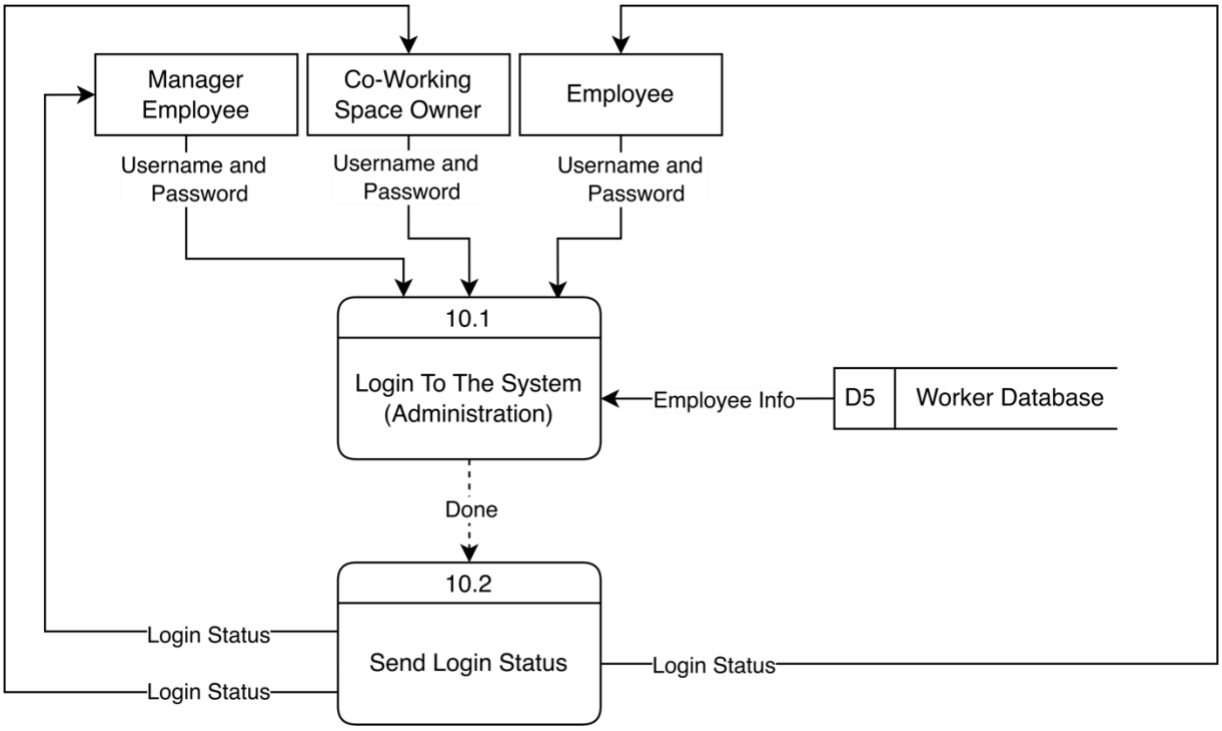
Process 8.0 Cancel Booking



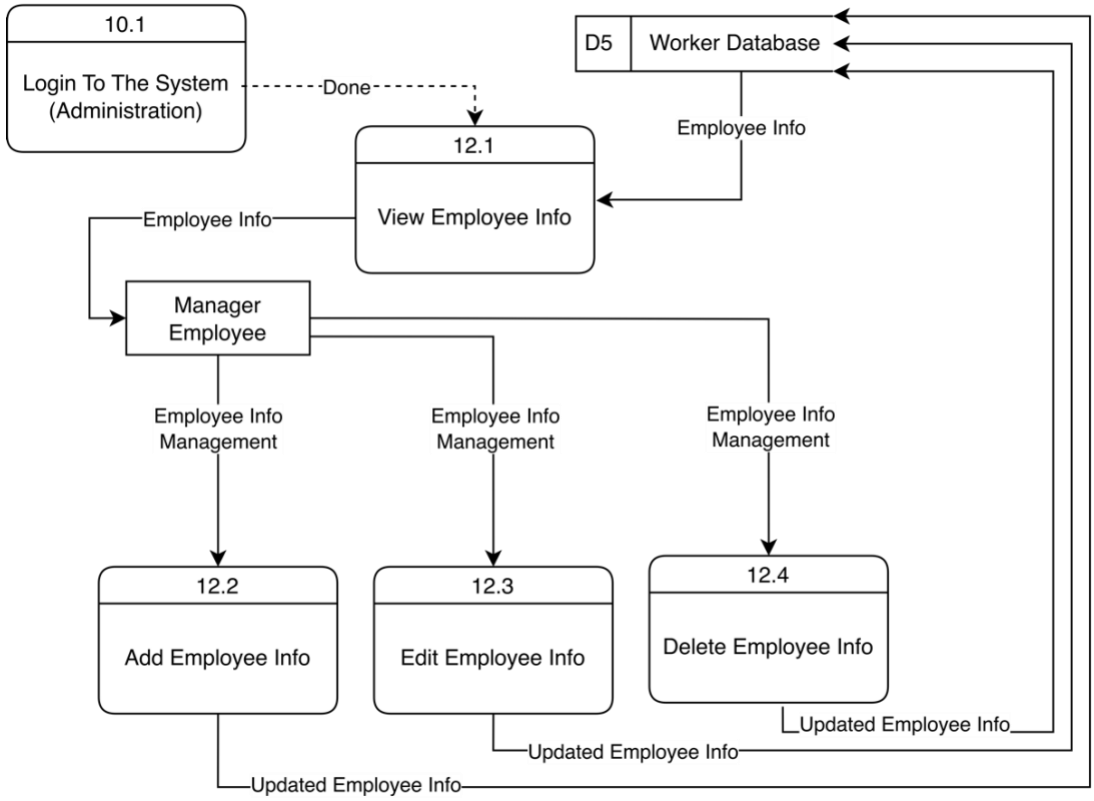
Process 9.0 Register (Employee)



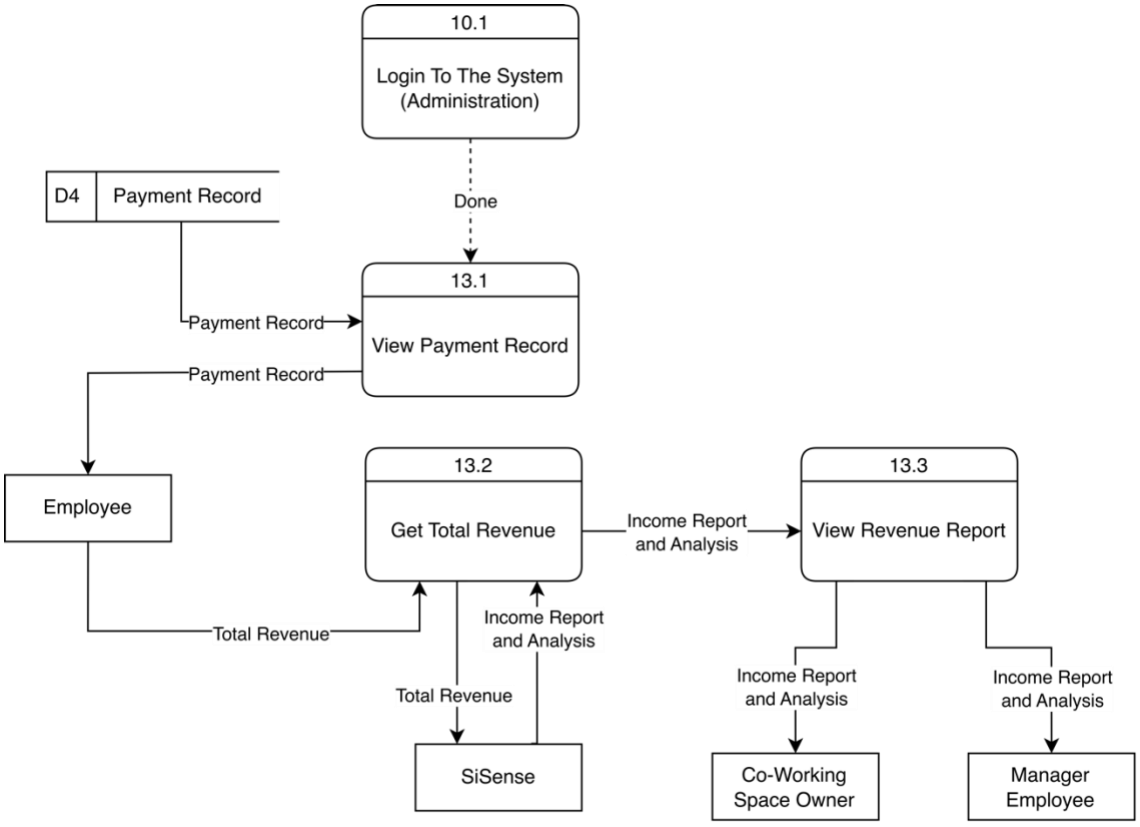
Process 10.0 Login (Employee)



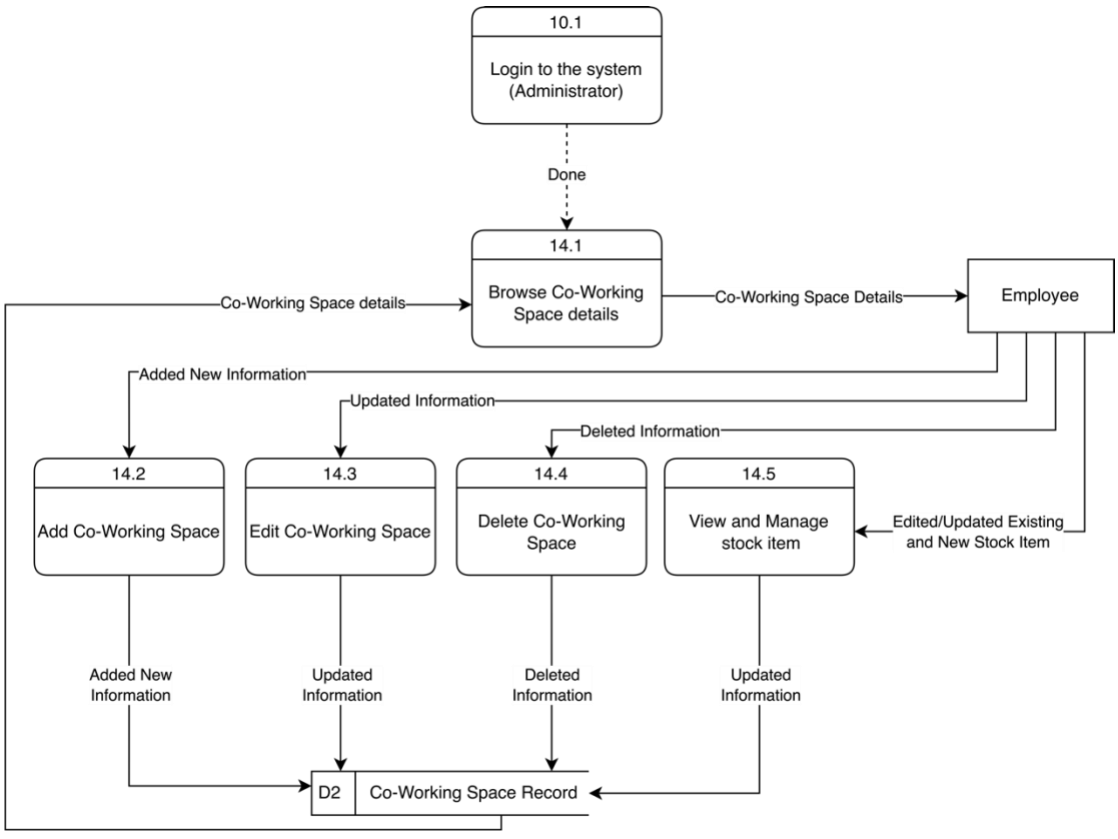
Process 12.0 Manage Employee



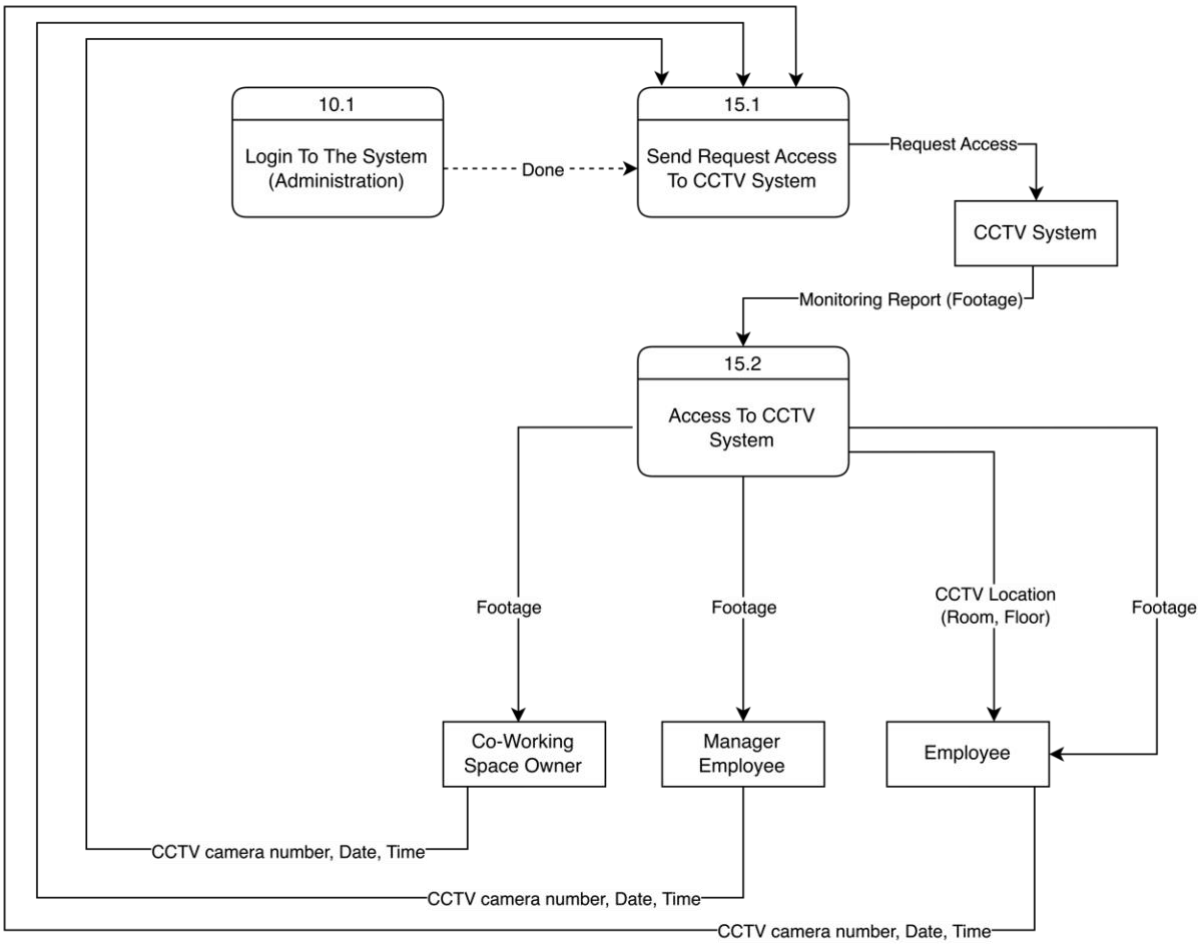
Process 13.0 Manage Revenue



Process 14.0 Manage detailed information of Co-Working Space



Process 15.0 Access CCTV System



List of data stores and attributes

D1 | Customer Database

Attributes	Description
Registration Info	The customer registration details include the customer's first name, last name, address, and phone number. ● **First name:** The customer's first name ● **Last name:** The customer's last name ● **Address**: The physical address of the customer, including street address, city, state, and postal code. ● **Phone number:** The customer's contact phone number.
Email/Username	The customer's email address.
Password	The customer's current password for authentication
Membership Type	The type of membership the customer has selected: daily, monthly, or annual
Updated Customer Information	The updated information of the customer information

D2 | Co-working Space Record

Attributes	Description
Co-working space details	A textual description of the co-working space, including its name, location, amenities, operating time, price, and review. ● **Name:** The co-working space's name ● **Location:** The co-working space's address ● **Amenities:** A list of amenities and services offered at the co-working space, such as high-speed Wi-Fi, meeting rooms, printing services, coffee, and more ● **Operating Hours:** The time when the co-working space is open and closed. ● **Price:** Details about the pricing structure, which may include daily, monthly, or annual rates. ● **Review:** Customer reviews and ratings of the co-working space, including text reviews and numerical ratings.
Equipment Info	A list of equipment and resources available in the co-working space

D3 | Booking Record

Attributes	Description
New Booking Record	The booking record includes reservation information such as the date, time slot, number of tables and chairs, customer requests, and requested equipment. • **Date:** The date of booking • **Time Slot:** The specific time slot or time range for the booking. • **Number of Tables and Chairs:** The quantity of tables and chairs reserved for the booking. • **Request Option:** Any customer-specific requests or preferences related to the booking. • **Request Equipment:** Additional equipment or special requirements are requested for the booking.
Payment Status	The status of the payment for the booking, specifying whether it was successful or not
Cancellation booking	The records of information related to the cancellation of a booking, including the cancellation request and its status.

D4 | Payment Record

Attributes	Description
New Payment Record	The new payment transaction, including payment method, payment amount, and payment date. ● **Payment Method:** The payment method to complete the transaction can be a Visa or MasterCard, a banking API, or a True Wallet. ● **Payment Amount:** The total amount paid by the customer. ● **Payment Date:** The date and time of the payment made by the customer
Payment Status	The status of the payment indicates whether it was successful or not.
Refund Info	The information on the refund of the booking includes the refund amount and reason.
Updated Payment Status	The current status of the payment specifies whether it has been updated or changed in any way.

D5 | Worker Database

Attributes	Description
Employee Info	The employee details, including registration information, role, username, and password. ● **Role:** Defines the responsibilities and position of the employee within the organization. ● **Username:** The unique username associated with the employee ● **Password:** The employee's password for authentication and access to the system.
Updated employee info	The information related to updates or changes in an employee's profile