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Database Assignment

Phase: 2

Names	IDS
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1. Introduction

The Movie Rental Management System is designed to allow users (clients) to rent movies online. The system will manage movie inventory, track rentals, and maintain user profiles, along with rental history. Admins can manage movies, rental details, and user accounts. The system is designed to be secure, user-friendly, and accessible 24/7.

2. Functional Requirements

2.1 Admin Management

- Add new Supplier: Admins can add suppliers to the system.
- Add new Movie: Admins can add movies with details like type, price, lead actor, and age restrictions.
- Manage Rental Details: Admins can view and update rental history and charges.
- Add new Admin: Admins can create other admin accounts.

2.2 Client Management

- Sign up new Client: Clients can create accounts with personal details and payment info.
- Update Client Details: Clients can update their personal information.
- Rent Movies: Clients can browse and rent movies.
- View Rental History: Clients can see their past rental details.

2.3 Movie Management

- Add Movies: Admins can add movies with necessary details.
- Update Movie Details: Admins can update movie information.
- View Movie Details: Both admins and clients can view movie information.

2.4 Rental Management

- Rent a Movie: Clients can rent movies for a set duration.
- View Rental History: Clients can view past rentals.
- Track Rental Status: The system tracks rental status (returned, overdue, active).

2.5 Order/Receipt Management

- Generate Orders/Receipts: An order/receipt is created for each rental.
- View Order/Receipt: Clients can view their rental receipts.

2.6 Address Management

- Client Address: Clients can have multiple addresses (e.g., residence, billing).
 - Foreign Key: Client_ID links the address to the client.

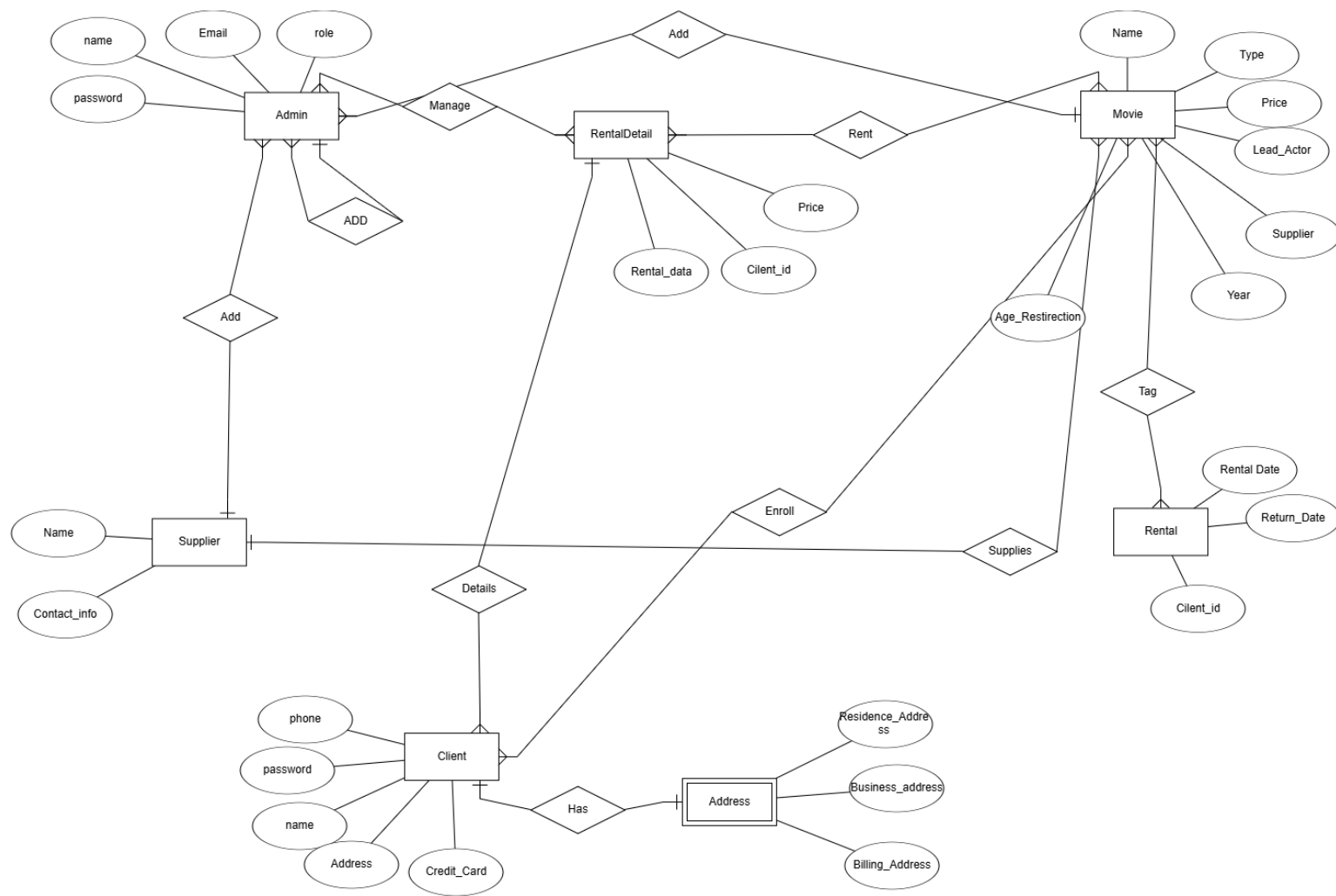
3 Entity and Attributes

Entity	Attributes	Primary Key
Admin	Name, Password, Role, Email	Admin_ID
Client	Name, Password, phone, Credit_Card, Address	Client_ID
Address(weak)	Residence_Address, Business_Address, billing_Address	All attributes(composite PK)
Movie	Name, Type, Price, Lead_Actor, Supplier_ID(FK), Year, Age_Restirection	Movie_ID
Supplier	Name, Contact_info	Supplier_ID
Rental	Client_ID(FK), Rental_Date(FK), Return_Date	Rental_ID(FK), Movie_ID(FK) (composite PK)
RentalDetail	Client_ID,(FK), Rental_Date, Price,	Rental_ID

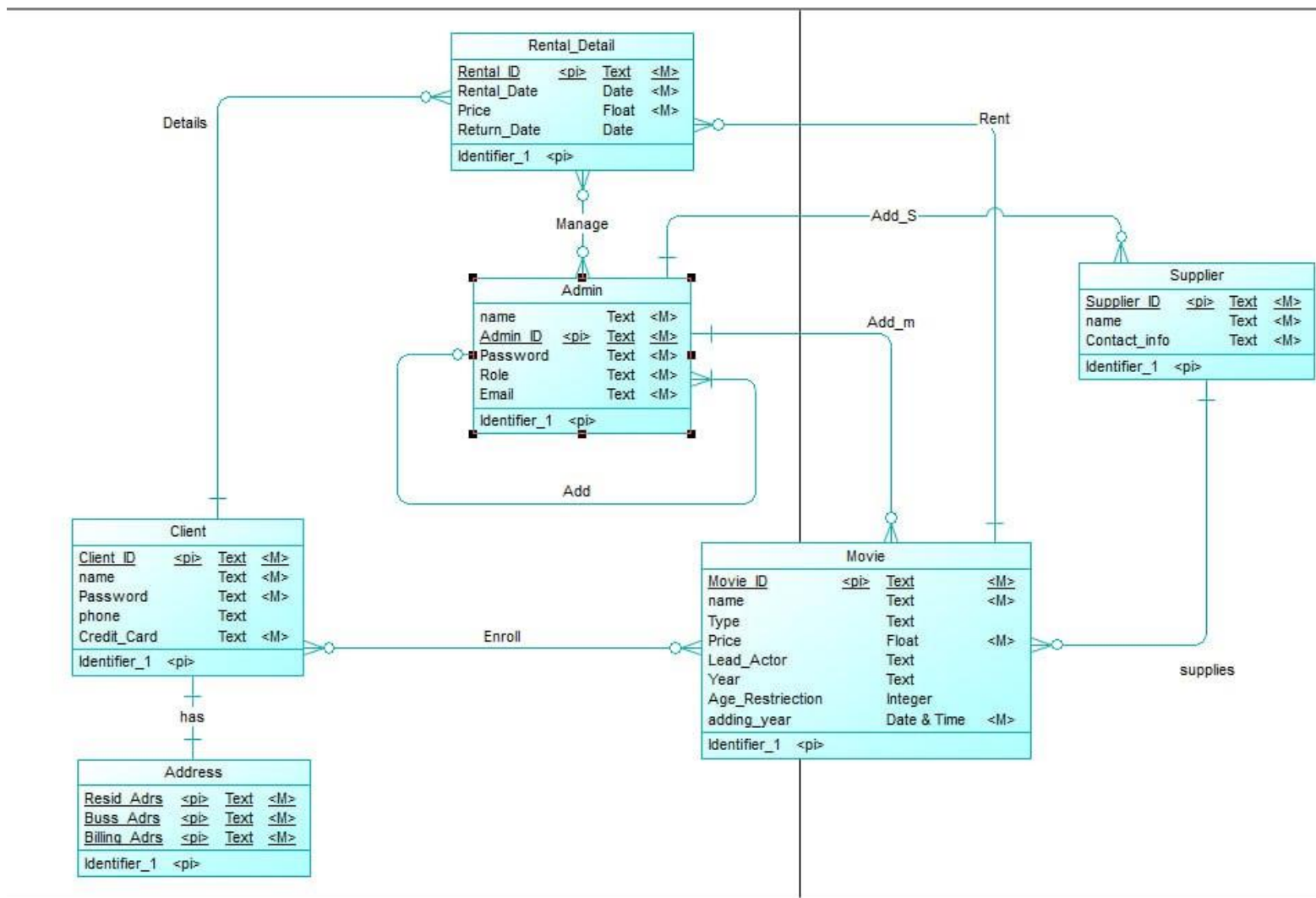
4 Relationship

Relationship Name	From Entity	To Entity	Type	Description
Add	Admin	Supplier	1-M	Every Admin could add new Suppliers
Add	Admin	Movie	1-M	Every Admin could add new Movies
Manage	Admin	RentalDetail	M-M	Admin could manage many RentalDetail
Add	Admin	Admin	1-M	Every Admin could add new Admin
Has	Client	Address	1-1	Every Client has Address
Enroll	Client	Movie	M-M	Client could Enroll Movies
Details	Client	RentalDetail	1-M	Client Rents for movies saved In the RentalDetail
Supplies	Movie	Supplier	1-M	Every movie has one Supplier
Tag	Movie	Rental	M-M	Movies Rented will be tagged In the Rental
Rent	RentalDetail	Movie	M-M	RentalDetail saves the Rent of the movie history

5 The ERD



Conceptual ERD:



Physical ERD:

