

# Powering Innovation with Top Tech Talent

## SRM Talent Cloud Ecosystem

Enabling Premium Placements  
High-Value Internships  
Remote Jobs  
High-End Research and Innovation  
Nurturing Startups



# Guided Immersion of End-to-End Data Management and Analytics

1. Introducing the UNOX Project
2. Clarification Log
3. UNOX ER Model
4. UNOX Database Design
5. UNOX Data Dictionary
6. Data Generation for UNOX
7. Data Loading for UNOX
8. Data Testing

# 1.Introducing the UNOX Project

- Read the document shared and understand the Project Requirements

# 1.Introducing the UNOX Project

# What questions do you have?

## 2. UNOX Clarification Log

- Read the Excel document and make a list of questions that you have that will help you understand the requirements better
- Goal: Eliminate assumptions and ambiguity.

# ER Modeling

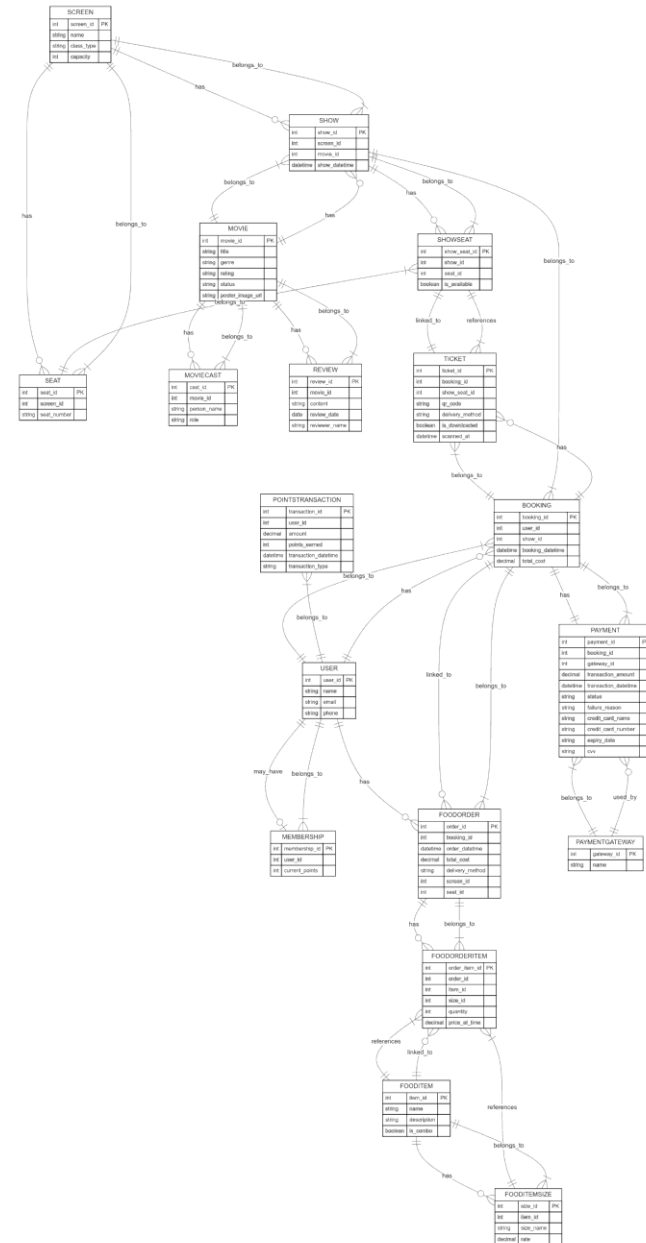
- A method for conceptual data modeling.
- Visualizes and organizes data within a database.
- Identifies entities, attributes, and relationships.

# Connecting Entities through cardinality

- **One-to-One (1:1):**
  - Each entity in one set is associated with at most one entity in the other set.
- **One-to-Many (1:N):**
  - One entity can be associated with multiple entities in another set.
- **Many-to-Many (M:N):**
  - Entities in both sets can be associated with multiple entities in the other set.

### 3. UNOX ER Model

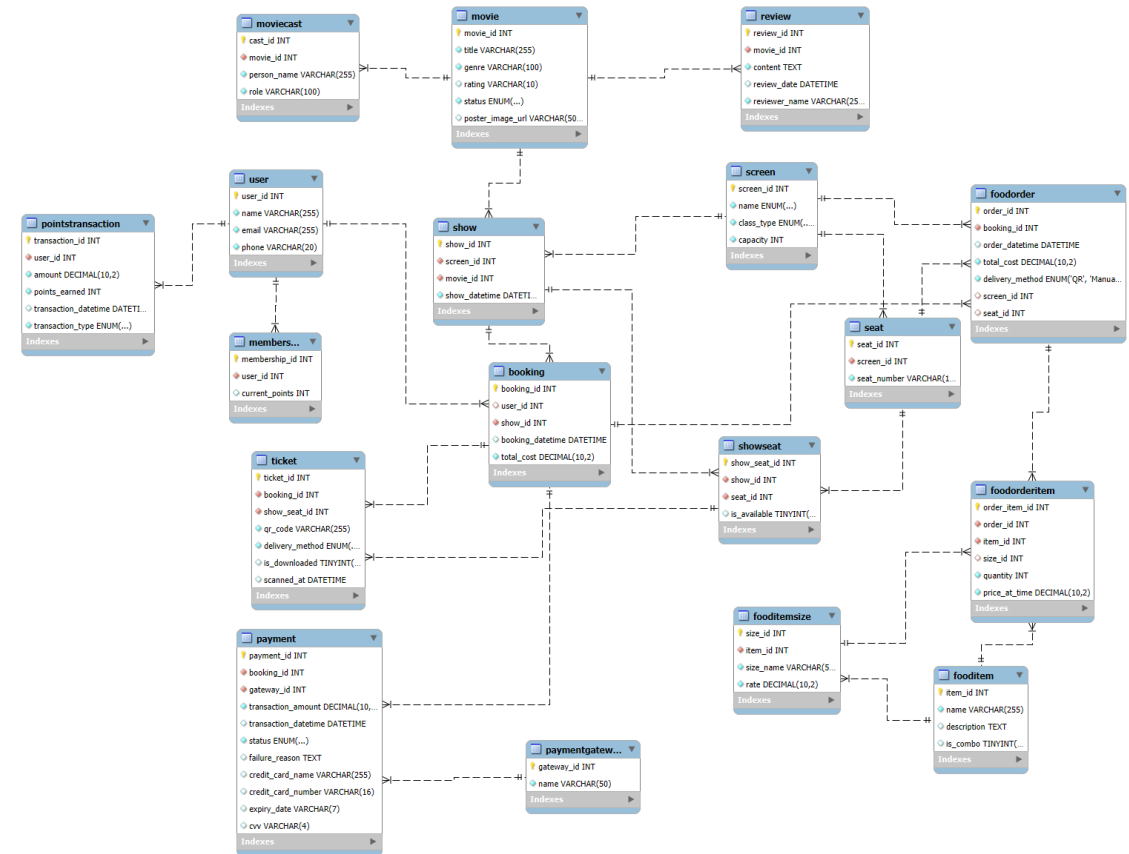
- Refer to the ER Diagram.
- Understand the Entities and their relationships





## 4. UNOX Database Diagram

- Refer to the Database Design Diagram.
- Understand the tables, primary keys and relationships



# 5. UNOX Data Dictionary

- Refer to the Data Dictionary Excel File.
- Understand the Data Types and Data Constraints

Sr. No	Table Name	Column Name	Data Type	Size/Length	Primary Key	Foreign Key	Allow Nulls	Default Value	Constraints	Description
1	Screen	screen_id	INT		Yes		No		Auto Increment	Unique identifier for each screen.
		name	VARCHAR	50	No		No			Name of the screen (A, B, C, D).
		class_type	VARCHAR	10	No		No			Class type of the screen (Gold, Silver, Iron).
		capacity	INT		No		No			Seating capacity of the screen.
2	Seat	seat_id	INT		Yes	screen_id	No		Auto Increment	Unique identifier for each seat.
		seat_number	VARCHAR	10	No		No			Seat number (e.g., "A1").
3	Movie	movie_id	INT		Yes		No		Auto Increment	Unique identifier for each movie.
		title	VARCHAR	255	No		No			Movie title.
		genre	VARCHAR	50	No		No			Genre of the movie.
		rating	DECIMAL 3,1		No		No			Movie rating (e.g., 8.5).
		status	VARCHAR	20	No		No			Status of the movie (e.g., "Now Showing", "Upcoming").
		poster_image_url	VARCHAR	255	No		Yes	NULL		URL of the movie poster image.
4	MovieCast	cast_id	INT		Yes	movie_id	No		Auto Increment	Unique identifier for each movie cast.
		person_name	VARCHAR	100	No		No			Name of the actor/actress.
		role	VARCHAR	100	No		No			Role played by the actor/actress in the movie.
5	Review	review_id	INT		Yes	movie_id	No		Auto Increment	Unique identifier for each review.
		content	TEXT		No		No			Review content.
		review_date	DATE		No		No			Date and time when the review was posted.
		reviewer_name	VARCHAR	100	No		No			Name of the reviewer.
6	Show	show_id	INT		Yes	screen_id, movie_id	No		Auto Increment	Unique identifier for each show.
		show_datetime	DATE		No		No			Date and time when the show is scheduled.
7	ShowSeat	show_seat_id	INT		Yes	show_id, seat_id	No		Auto Increment	Unique identifier for each seat in a show.
		is_available	BOOLEAN		No		No	TRUE		Availability status of the seat in the show (TRUE/FALSE).
8	User	user_id	INT		Yes		No		Auto Increment	Unique identifier for each user.
		name	VARCHAR	100	No		No			Name of the user.
		email	VARCHAR	100	No		No			Email address of the user.
		phone	VARCHAR	15	No		Yes	NULL		Phone number of the user.
9	Membership	membership_id	INT		Yes	user_id	No		Auto Increment	Unique identifier for each membership.
		current_points	INT		No		No	0		Current loyalty points of the user.
10	Booking	booking_id	INT		Yes	user_id, show_id	No		Auto Increment	Unique identifier for each booking.
		booking_datetime	DATE		No		No			Date and time when the booking was made.
		total_cost	DECIMAL 10,2		No		No			Total cost of the booking.
11	Ticket	ticket_id	INT		Yes	booking_id, show_seat_id	No		Auto Increment	Unique identifier for each ticket.
		qr_code	VARCHAR	100	No		No			QR code for the ticket.
		delivery_method	VARCHAR	50	No		No			Delivery method of the ticket (WhatsApp/App).
		is_downloaded	BOOLEAN		No		No	FALSE		Indicates if the ticket has been downloaded.
		scanned_at	DATE		No		Yes	NULL		Timestamp when the ticket was scanned.
12	PaymentGateway	gateway_id	INT		Yes		No		Auto Increment	Unique identifier for each payment gateway.
		name	VARCHAR	100	No		No			Name of the payment gateway (e.g., PayPal, Bill Desk).
13	Payment	payment_id	INT		Yes	booking_id, gateway_id	No		Auto Increment	Unique identifier for each payment.
		transaction_amount	DECIMAL 10,2		No		No			Transaction amount of the payment.
		transaction_datetime	DATE		No		No			Date and time of the transaction.
		status	VARCHAR	20	No		No			Payment status (e.g., "Completed", "Failed").
		failure_reason	TEXT		No		Yes	NULL		Reason for failure if payment status is failed.
		credit_card_name	VARCHAR	100	No		Yes	NULL		Name on the credit card used for payment.
		credit_card_number	VARCHAR	20	No		Yes	NULL		Credit card number used for payment.
		expiry_date	DATE		No		Yes	NULL		Expiry date of the credit card used for payment.
		cvv	VARCHAR	4	No		Yes	NULL		CVV of the credit card used for payment.
14	FoodItem	item_id	INT		Yes		No		Auto Increment	Unique identifier for each food item.
		name	VARCHAR	100	No		No			Name of the food item.
		description	TEXT		No		Yes	NULL		Description of the food item.
		is_combo	BOOLEAN		No		No	FALSE		Indicates if the food item is part of a combo.
15	FoodItemSize	size_id	INT		Yes	item_id	No		Auto Increment	Unique identifier for each food item size.
		size_name	VARCHAR	50	No		No			Size name (e.g., "Small", "Large").
		rate	DECIMAL 10,2		No		No			Rate of the food item size.
16	FoodOrder	order_id	INT		Yes	booking_id, screen_id, seat_id	No		Auto Increment	Unique identifier for each food order.
		order_datetime	DATE		No		No			Date and time when the food order was placed.
		total_cost	DECIMAL 10,2		No		No			Total cost of the food order.
		delivery_method	VARCHAR	50	No		No			Delivery method for the food order (Qr/Manual).
17	FoodOrderItem	order_item_id	INT		Yes	order_id, item_id, size_id	No		Auto Increment	Unique identifier for each food order item.
		quantity	INT		No		No			Quantity of the food item ordered.
		price_at_time	DECIMAL 10,2		No		No			Price of the food item at the time of the order.
18	PointsTransaction	transaction_id	INT		Yes	user_id	No		Auto Increment	Unique identifier for each points transaction.
		amount	DECIMAL 10,2		No		No			Amount of money spent/earned.
		points_earned	INT		No		No			Number of points earned in the transaction.
		transaction_datetime	DATE		No		No			Date and time when the points transaction occurred.
		transaction_type	VARCHAR	20	No		No			Type of transaction (Booking/Food/Redemption).

# 6. UNOX Data Generation

- Go through the CSV files and understand how the data looks like.

Sr. No	Table Name	Column Name	Data Type	Size/Length	Primary Key	Foreign Key	Allow Nulls	Default Value	Constraints	Description
1	Screen	screen_id	INT		Yes	No	No		Auto Increment	Unique identifier for each screen.
		name	VARCHAR	50	No	No	No			Name of the screen (A, B, C, D).
		class_type	VARCHAR	10	No	No	No			Class type of the screen (Gold, Silver, Iron).
		capacity	INT		No	No	No			Seating capacity of the screen.
2	Seat	seat_id	INT		Yes	screen_id	No		Auto Increment	Unique identifier for each seat.
		seat_number	VARCHAR	10	No	No	No			Seat number (e.g., "A1").
3	Movie	movie_id	INT		Yes	No	No		Auto Increment	Unique identifier for each movie.
		title	VARCHAR	255	No	No	No			Movie title.
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		is_available	BOOLEAN		No	No	TRUE			Availability status of the seat in the show (TRUE/FALSE).
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		booking_datetime	DATE		No	No	No			Date and time when the booking was made.
		total_cost	DECIMAL	10,2	No	No	No			Total cost of the booking.
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		qr_code	VARCHAR	100	No	No	No			QR code for the ticket.
		delivery_method	VARCHAR	50	No	No	No			Delivery method of the ticket (WhatsApp/App).
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		delivery_method	VARCHAR	50	No	No	No			Delivery method for the food order (Qr/Manual).
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		quantity	INT		No	No	No			Quantity of the food item ordered.
		price_at_time	DECIMAL	10,2	No	No	No			Price of the food item at the time of the order.
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		amount	DECIMAL	10,2	No	No	No			Amount of money spent/earned.
		points_earned	INT		No	No	No			Number of points earned in the transaction.
		transaction_datetime	DATE		No	No	No			Date and time when the points transaction occurred.
		transaction_type	VARCHAR	20	No	No	No			Type of transaction (Booking/Food/Redemption).

## 7. Data Loading for UNOX

- Import the SQL database file.
- View the contents in the database tables

## 8. Data Testing

- Test the data in the tables and ensure correctness by comparing with the CSV files.
- Run the test cases to test the data.

# Q&A

- What questions do you have?

We value your time

**THANK YOU**

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