



CINEMA RESERVATION SYSTEM

Instructor:

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SECTION 5
GROUP 3



Group work report

	work	shahd	Abeer	Alaa	Taif	Jude	Deema	Wusaylah
phase 1	Business rule				✓		✓	✓
	Chen's Notation	✓			✓			
	UML Notation.		✓			✓		
	presentation	✓						
phase 2	mapping		✓	✓		✓	✓	✓
	Normalization				✓			
phase 3	create tables				✓			✓
	insert	✓	✓	✓	✓	✓	✓	✓
	update and Query	✓	✓	✓	✓	✓	✓	✓

phase 1





Business rule



our project is about cinema reservation system which allow the customers to book a ticket and choose the preferred seat to see a movie on professional screen at nearest place to them.

Branch:

The cinema has a number of **branches** and is run by Manager The identifier for branch is **branchID** , and the attribute is **address (city, street)**.

Manager :

The identifier for Manager is **ManagerID** , The Manager has the following additional attributes : **name (firstName, lastName), 1-2 phoneNumbers, address (city , street) and salary.**

Each Manager should manage one branch, and each **branch managed by one Manager.**



Business rule



Customer:

The customers can choose a branch to watch the movie, The identifier for the customer is customerID, and another attributes dateOfBirth, email, and name(firstName, lastName). The customers may choose any branch among many branches all branches are available, but they can choose at most one branch.

Seat:

The customers may book any seat, The identifier for the seat is seatNumber, and another attribute is type. If the customer booked a movie and seats, then he will get a booking number.

The customers can book any movies, Also many customers can book any seats. all seats are booked by many customers.



Business rule



Movie:

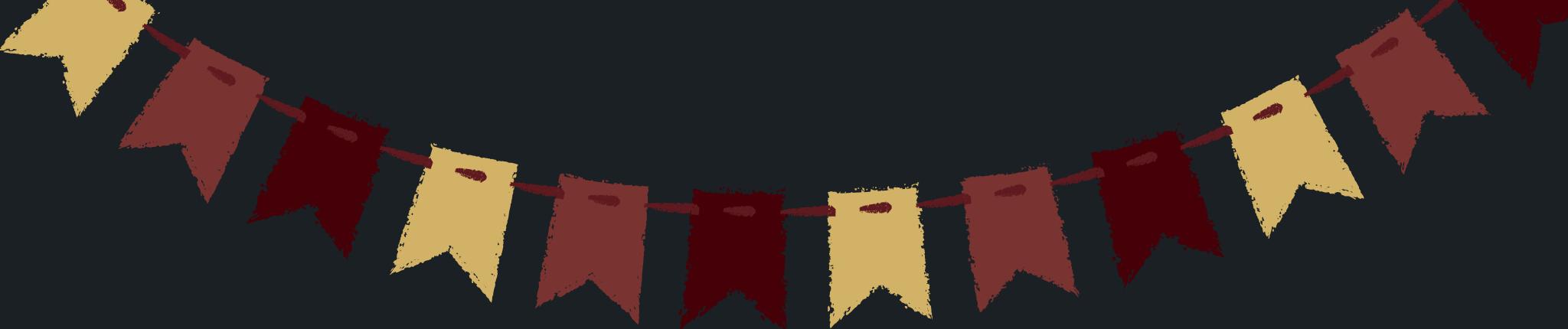
Each Customer can book one movie for each ticket, and movies should exhibit at many branches, and each branch exhibit many movies. while the identifiers for movie is movieNumber.

the movie has the following additional attributes: 1-2 movieDate(date, time), all branches may display the same movie once or twice a day, 1-2 movieType, movieDuration, limitAge, movieDescription and movieName.

Screen:

The movie in the cinema should display on many screens, and each screen display many movies, also all screens include many seats, while the identifier for the screen is screenNumber.

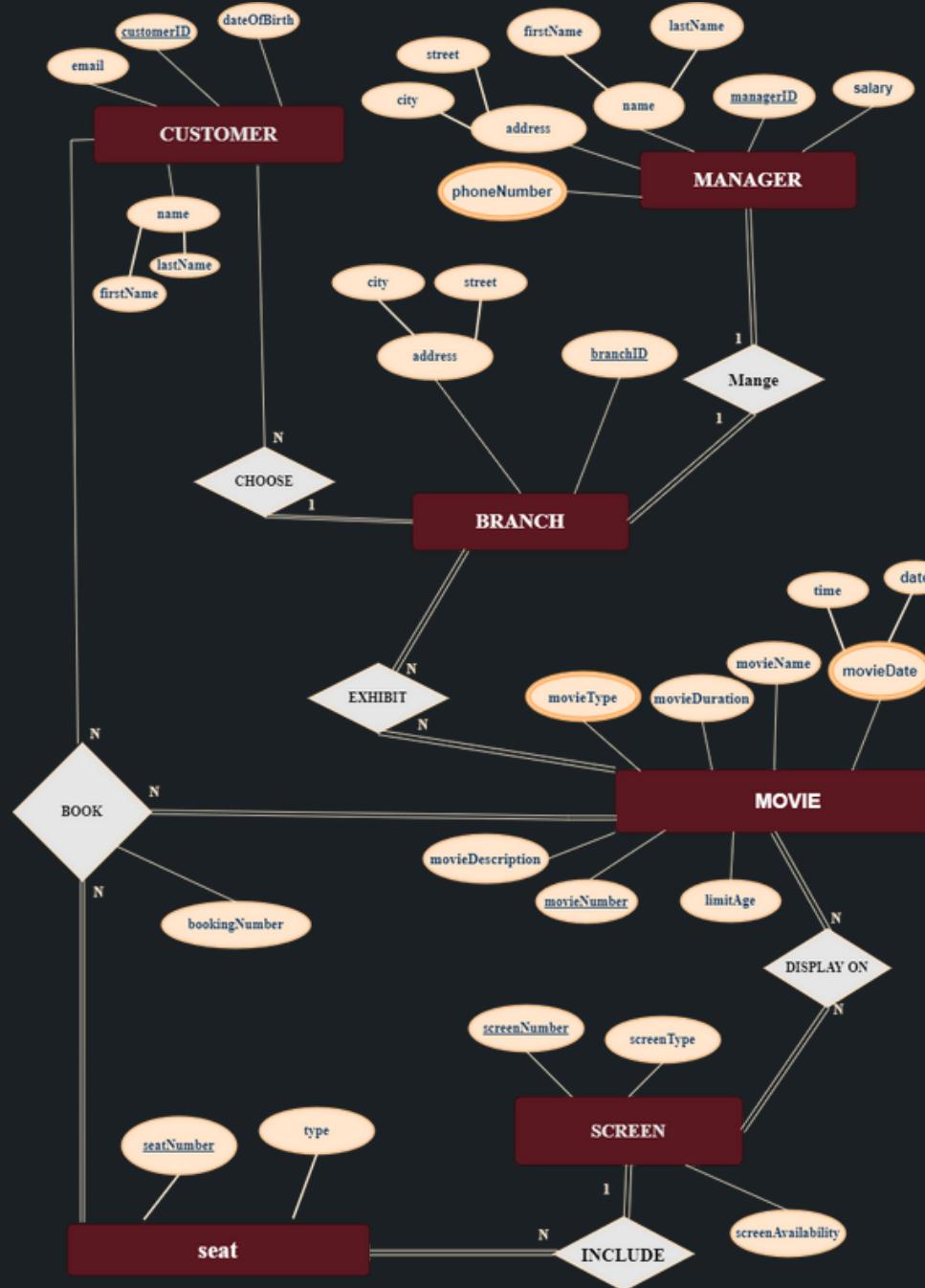
Other attributes include screenType and screenAvailability.



Diagrams



Chen's Notation



UML Notation

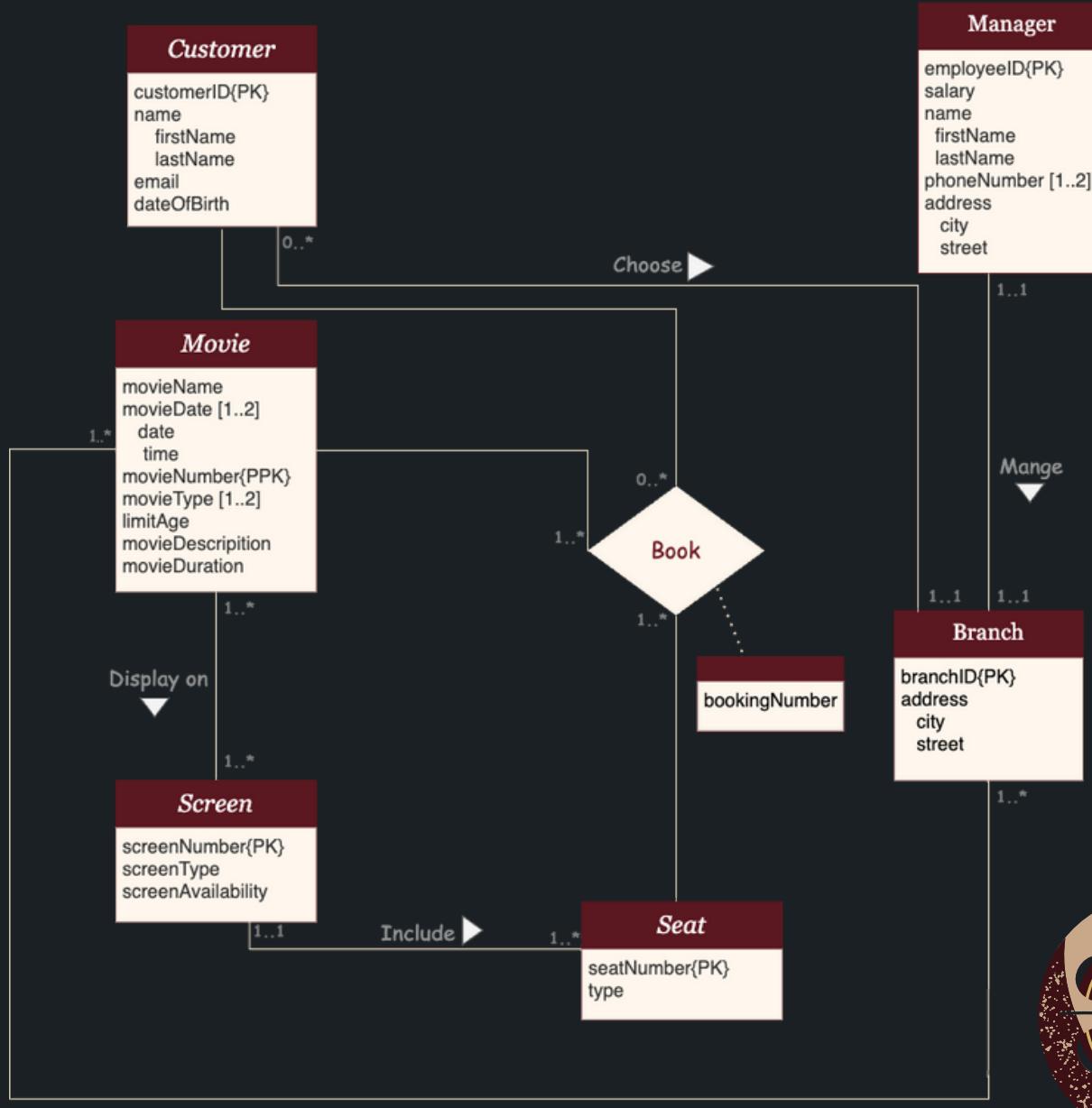


Exhibit ►





phase 2

Step 1 :mapping of regular entity type.

CUSTOMER

<u>CustomerID</u>	firstName	lastName	email	dateOfBirth
-------------------	-----------	----------	-------	-------------

MANAGER

<u>ManagerID</u>	firstName	lastName	salary	city	street
------------------	-----------	----------	--------	------	--------

BRANCH

<u>branchID</u>	city	street
-----------------	------	--------

MOVIE

<u>movieNumber</u>	movieDuration	movieDescription	movieName	limitAge
--------------------	---------------	------------------	-----------	----------

SCREEN

<u>screenNumber</u>	screenType	screenAvailability
---------------------	------------	--------------------

SEAT

<u>seatNumber</u>	type
-------------------	------

Step 2: mapping of week entity types →we don't have a weak entity

Step 3: mapping of binary 1:1 relationship types

CUSTOMER

<u>CustomerID</u>	firstName	lastName	email	dateOfBirth
-------------------	-----------	----------	-------	-------------

MANAGER

<u>ManagerID</u>	firstName	lastName	salary	city	street
------------------	-----------	----------	--------	------	--------

BRANCH

<u>branchID</u>	<u>ManagerID</u>	city	street
-----------------	------------------	------	--------

MOVIE

<u>movieNumber</u>	movieDuration	movieDescription	movieName	limitAge
--------------------	---------------	------------------	-----------	----------

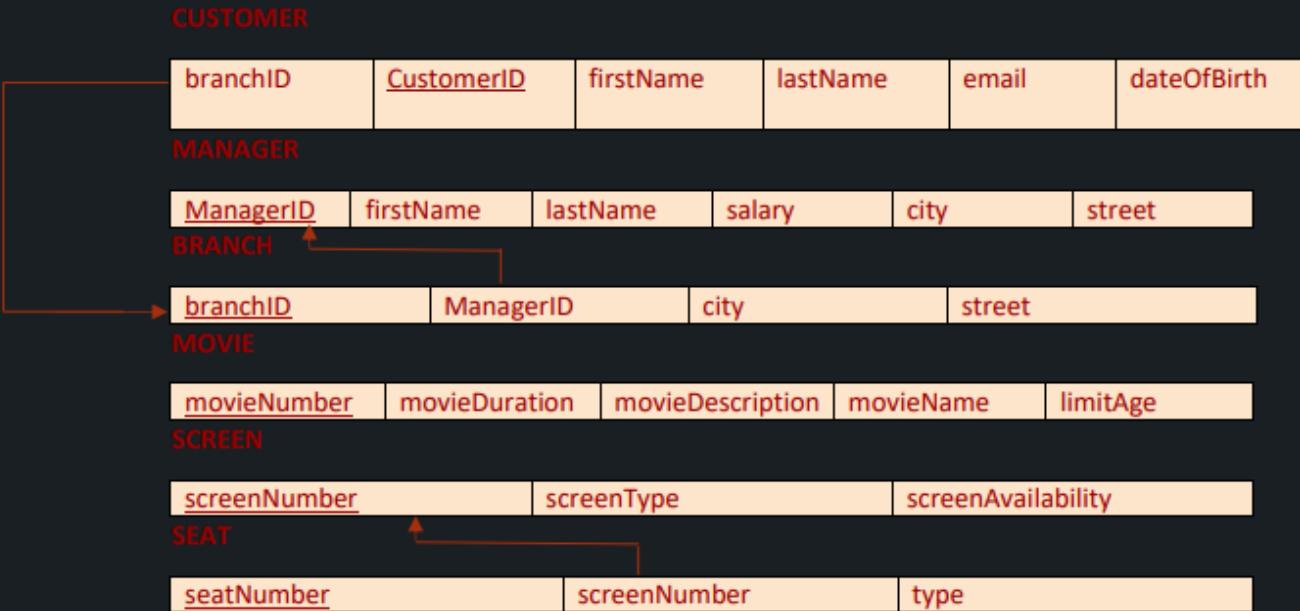
SCREEN

<u>screenNumber</u>	screenType	screenAvailability
---------------------	------------	--------------------

SEAT

<u>seatNumber</u>	type
-------------------	------

Step 4: :mapping of binary 1:N relationship types



Step 5: :mapping of binary M:N relationship types





Step 6: Multivalued Attribute mapped into a relation

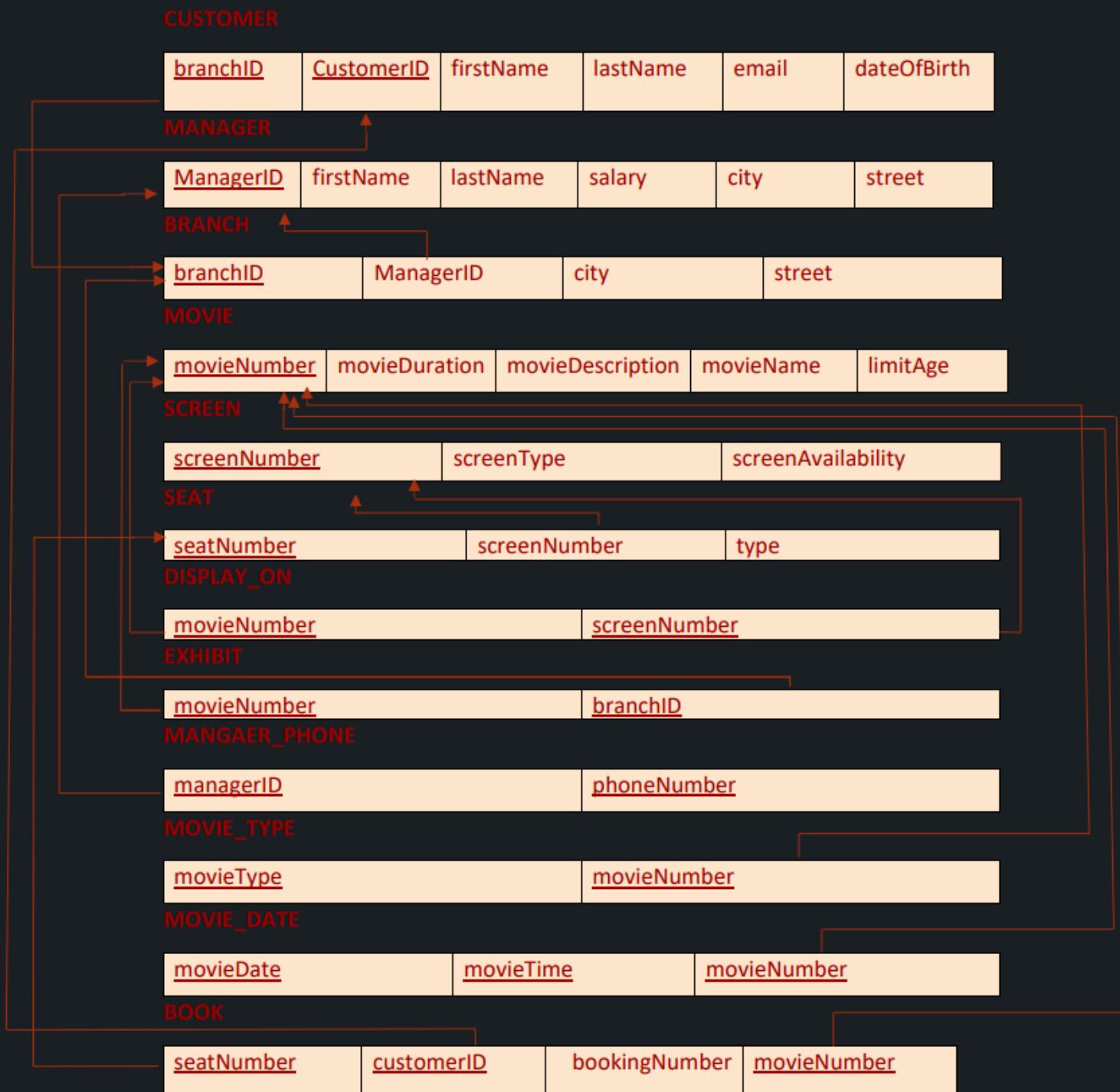
MANAGER_PHONE	MANAGER(managerID)	
<u>managerID</u>	<u>phoneNumber</u>	
MOVIE_TYPE	MOVIE(movieNumber)	
<u>movieNumber</u>	<u>movieType</u>	
MOVIE_DATE	MOVE(movieNumber)	
<u>movieNumber</u>	<u>movieDate</u>	<u>movieTime</u>

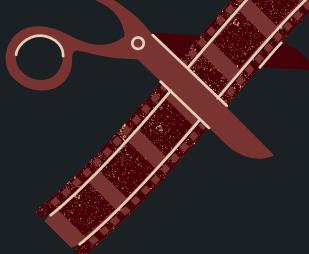


Step 7: Mapping of N-ary relationship types

BOOK	SEAT(seatNumber)	CUSTOMER(customerID)	MOVIE(movieNumber)
<u>seatNumber</u>	<u>customerID</u>	<u>movieNumber</u>	<u>bookingNumber</u>

final mapping





Normalization

CUSTOMER

branchID	<u>CustomerID</u>	firstName	lastName	email	dateOfBirth
----------	-------------------	-----------	----------	-------	-------------

No multivalued attributes was found therefore the table in the 1NF
There is No partial dependency therefore the table in the 2NF
There is no transitive dependency therefor the table in the 3NF

MANAGER

<u>ManagerID</u>	firstName	lastName	salary	city	street
------------------	-----------	----------	--------	------	--------

No multivalued attributes was found therefore the table in the 1NF
There is No partial dependency therefore the table in the 2NF
There is no transitive dependency therefor the table in the 3NF

BRANCH

<u>branchID</u>	ManagerID	city	street
-----------------	-----------	------	--------



No multivalued attributes was found therefore the table in the 1NF
There is No partial dependency therefore the table in the 2NF
There is no transitive dependency therefor the table in the 3NF

MOVIE

<u>movieNumber</u>	movieDuration	movieDescription	movieName	limitAge
--------------------	---------------	------------------	-----------	----------

No multivalued attributes was found therefore the table in the 1NF
There is No partial dependency therefore the table in the 2NF
There is no transitive dependency therefor the table in the 3NF

Normalization

SCREEN

<u>screenNumber</u>	screenType	screenAvailability
---------------------	------------	--------------------

No multivalued attributes was found therefore the table in the 1NF
There is No partial dependency therefore the table in the 2NF
There is no transitive dependency therefor the table in the 3NF

SET

<u>setNumber</u>	screenNumber	type
------------------	--------------	------

No multivalued attributes was found therefore the table in the 1NF
There is No partial dependency therefore the table in the 2NF
There is no transitive dependency therefor the table in the 3NF

DISPLAY_ON

<u>movieNumber</u>	<u>screenNumber</u>
--------------------	---------------------

No multivalued attributes was found therefore the table in the 1NF
There is No partial dependency therefore the table in the 2NF
There is no transitive dependency therefor the table in the 3NF

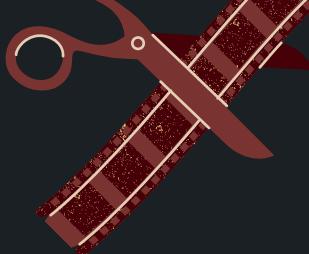


EXHIBIT

<u>movieNumber</u>	<u>branchID</u>
--------------------	-----------------

No multivalued attributes was found therefore the table in the 1NF
There is No partial dependency therefore the table in the 2NF
There is no transitive dependency therefor the table in the 3NF





Normalization

PHONE_MANAGER

<u>managerID</u>	<u>phoneNumber</u>
No multivalued attributes was found therefore the table in the 1NF There is No partial dependency therefore the table in the 2NF There is no transitive dependency therefor the table in the 3NF	

MOVIE_TYPE

<u>movieType</u>	<u>movieNumber</u>
No multivalued attributes was found therefore the table in the 1NF There is No partial dependency therefore the table in the 2NF There is no transitive dependency therefor the table in the 3NF	

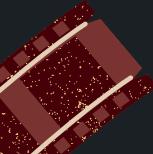
MOVIE_DATE

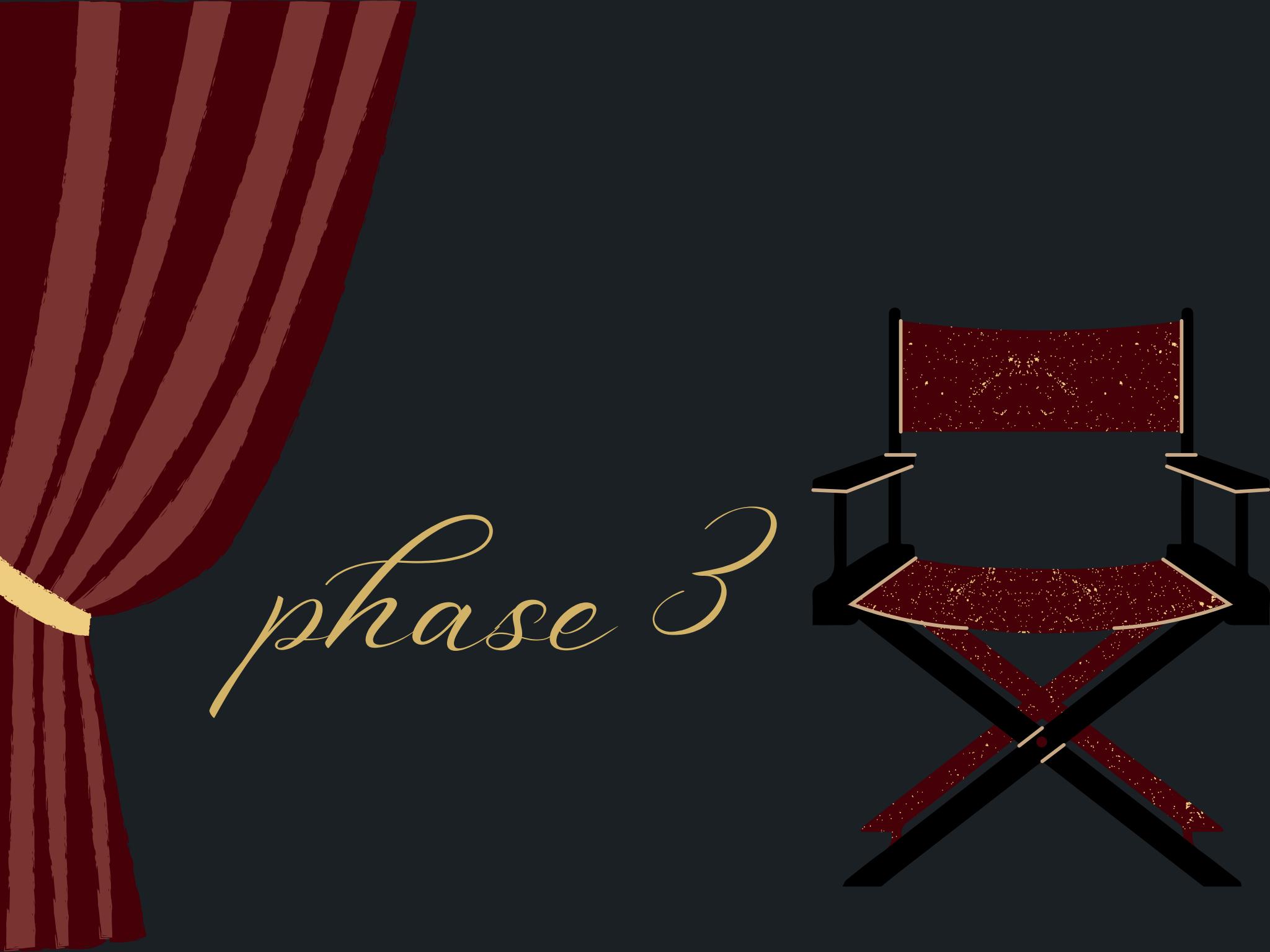
<u>movieDate</u>	<u>movieNumber</u>	<u>movieTime</u>
No multivalued attributes was found therefore the table in the 1NF There is No partial dependency therefore the table in the 2NF There is no transitive dependency therefor the table in the 3NF		



BOOK

<u>seatNumber</u>	<u>coustmreID</u>	<u>movieNumber</u>	<u>bookingNumber</u>
No multivalued attributes was found therefore the table in the 1NF There is No partial dependency therefore the table in the 2NF There is no transitive dependency therefor the table in the 3NF			





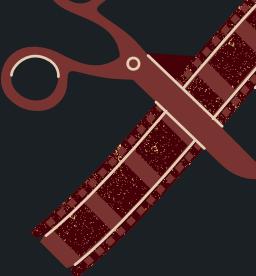
phase 3

Create Tables

1 • CREATE SCHEMA CRS;

```
CREATE TABLE Manager
(
    ManagerID varchar(5) NOT NULL,
    firstName VARCHAR (10),
    lastName VARCHAR (10),
    salary DECIMAL (5,3),
    city VARCHAR (20),
    street VARCHAR (20),
    CONSTRAINT Manager_PK PRIMARY KEY (ManagerID)
);
```

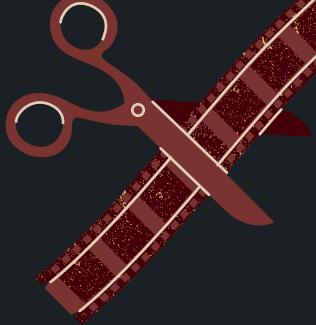
```
CREATE TABLE Movie
(
    movieNumber INT(2) NOT NULL,
    movieDuration CHAR(5),
    movieDescription VARCHAR(500),
    movieName VARCHAR(40),
    limitAge INT(2),
    CONSTRAINT Movie_PK PRIMARY KEY (movieNumber)
);
```



```
CREATE TABLE Screen
(
    screenNumber INT(2) NOT NULL,
    screenType VARCHAR(20),
    screenAvailability INT(1),
    CONSTRAINT Screen_PK PRIMARY KEY (screenNumber)
);
```

```
CREATE TABLE Branch
(
    branchID varchar(10) NOT NULL,
    ManagerID varchar(5) ,
    city VARCHAR (20),
    street VARCHAR (50),
    CONSTRAINT Branch_PK PRIMARY KEY (branchID),
    CONSTRAINT Branch_FK1 FOREIGN KEY (ManagerID) REFERENCES Manager(ManagerID) ON DELETE SET NULL
);
```

- CREATE TABLE Customer
 - branchID varchar(10),
 - customerID INT(15),
 - firstName VARCHAR (10),
 - lastName VARCHAR (10),
 - email VARCHAR (40),
 - dateOfBirth VARCHAR(10),
 - CONSTRAINT Customer_PK PRIMARY KEY (customerID),
 - CONSTRAINT Customer_FK1 FOREIGN KEY (branchID) REFERENCES Branch(branchID) ON DELETE CASCADE

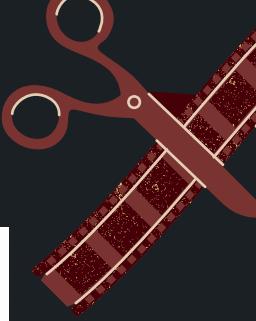


```
CREATE TABLE Seat
(
    seatNumber CHAR(4) NOT NULL,
    screenNumber INT(2),
    seatType VARCHAR(14),
    CONSTRAINT Seat_PK PRIMARY KEY (seatNumber),
    CONSTRAINT Seat_fk FOREIGN KEY(screenNumber) REFERENCES screen(screenNumber) ON DELETE CASCADE
);
```

```
CREATE TABLE Display_on
(
    movieNumber INT(2),
    screenNumber INT(2),
    CONSTRAINT Display_on_PK PRIMARY KEY (movieNumber,screenNumber),
    CONSTRAINT Display_on_FK1 FOREIGN KEY (movieNumber) REFERENCES Movie(movieNumber) ON DELETE CASCADE,
    CONSTRAINT Display_on_FK2 FOREIGN KEY (screenNumber) REFERENCES Screen(screenNumber) ON DELETE CASCADE
);
```

```
CREATE TABLE Exhibit
(
    movieNumber INT(2),
    branchID INT(10),
    CONSTRAINT Exhibit_PK PRIMARY KEY (movieNumber,branchID),
    CONSTRAINT Exhibit_FK1 FOREIGN KEY (movieNumber) REFERENCES Movie(movieNumber) ON DELETE CASCADE,
    CONSTRAINT Exhibit_FK2 FOREIGN KEY (branchID) REFERENCES Branch(branchID) ON DELETE CASCADE
);
```

```
CREATE TABLE Manager_phone
(
    ManagerID INT(10),
    phoneNumber INT(10),
    CONSTRAINT Manager_phone_PK PRIMARY KEY (ManagerID,phoneNumber),
    CONSTRAINT Manager_phone_FK1 FOREIGN KEY (ManagerID) REFERENCES Manager(ManagerID) ON DELETE CASCADE
);
```



```
CREATE TABLE Movie_type
(
    movieNumber INT(2),
    movieType VARCHAR (20),
    CONSTRAINT Movie_type_PK PRIMARY KEY (movieType,movieNumber),
    CONSTRAINT Movie_type_FK1 FOREIGN KEY (movieNumber) REFERENCES Movie(movieNumber) ON DELETE CASCADE
);
```

- ```
CREATE TABLE Movie_date
(
 movieDate VARCHAR(10),
 movieTime VARCHAR(5),
 movieNumber INT(2),
 CONSTRAINT Movie_date_PK PRIMARY KEY (movieDate,movieTime,movieNumber),
 CONSTRAINT Movie_date_FK1 FOREIGN KEY (movieNumber) REFERENCES Movie(movieNumber) ON DELETE CASCADE
);
```

```
CREATE TABLE Book
(
 seatNumber CHAR(2) NOT NULL,
 customerID INT(10),
 movieNumber INT(2),
 bookingNumber INT(10),
 CONSTRAINT Book_PK PRIMARY KEY (seatNumber, customerID, movieNumber),
 CONSTRAINT Book_FK1 FOREIGN KEY (seatNumber) REFERENCES Seat(seatNumber) ON DELETE CASCADE,
 CONSTRAINT Book_FK2 FOREIGN KEY (customerID) REFERENCES Customer(customerID) ON DELETE CASCADE,
 CONSTRAINT Book_FK3 FOREIGN KEY (movieNumber) REFERENCES Movie(movieNumber) ON DELETE CASCADE
);
```

# Insert values

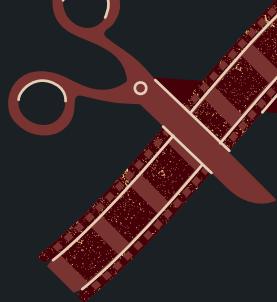
```
111 • INSERT INTO MANAGER
112 VALUES (5589,'Mohammed', 'Alharbi', 10.000, 'Jeddah', 'AlHamra Street'),
113 (8723,'Ahmad', 'kinsara', 10.500, 'Riyadh', 'Alolia Street'),
114 (2345,'Omar', 'Hariri', 12.000, 'Dammam', 'AlNaseem Street'),
115 (6412,'Ammar', 'khateeb', 11.000, 'Qassim', 'AlGhadeer Street'),
116 (5423,'Yaser', 'Alghamdi', 11.500, 'Jubail', 'AlFayha Street');
```

```
118 • INSERT INTO MANAGER_PHONE
119 VALUES (5589, 0568736292),
120 (8723, 0543321876),
121 (2345, 0509994423),
122 (6412, 0543388756),
123 (5423, 0569238163);
```



```
125 • insert into Branch
126 values ('Br1011', 5589 , ' Jeddah' , 'King fahad Br Rd'),
127 ('Br2011', 8723 , 'Riyadh','King Abdulaziz Br Rd'),
128 ('Br3011', 2345, 'Dammam','Al Nouzhah'),
129 ('Br4011', 6412 , 'Qassim', 'King Abdallah Ibn Abdu Al Aziz'),
130 ('Br5011' , 5423 , 'Jubail' , ' Al Madinah Rd');
```

```
134 • INSERT INTO Screen
135 VALUES (01,'standard',0);
136 • INSERT INTO Screen
137 VALUES (03,'suites',1);
138 • INSERT INTO Screen
139 VALUES (02,'standard',0);
140 • INSERT INTO Screen
141 VALUES (04,'suites',0);
142 • INSERT INTO Screen
143 VALUES (05,'standard',1);
```



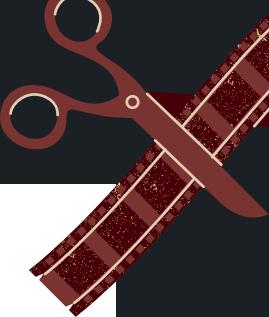
```
145 • INSERT INTO Movie
146 ○ values(1,100,'Julie is haunted by her grief after living through a tragic auto wreck that claimed the
147 life of her composer husband and young daughter.','blue',14),
148 ○ (2,160,'The story of a virtuoso piano player who lives his entire life aboard an ocean liner.
149 Born and raised on the ship','The Legend of 1900',14),
150 ○ (3,124,'A filmmaker recalls his childhood, when he fell in love with the movies at his village's
151 theater and formed a deep friendship with the theater's projectionist','Cinema Paradiso',16),
152 ○ (4,135,' Nothing is as it seems when a woman experiencing misgivings about her new boyfriend joins
153 him on a road trip to meet his parents at their remote farm.','I'm Thinking of Ending Things',16),
154 ○ (5,97,'A man arrives in Helsinki and gets beaten up so severely he develops amnesia. Unable to
155 remember his name or anything from his past life, he cannot get a job or an apartment, so he
156 starts living on the outskirts of the city and slowly starts putting his life back on track.',
157 'The Man Without a Past',14),
158 ○ (6,102,'In Casablanca, Morocco in December 1941, a cynical American expatriate meets a former lover,
159 with unforeseen complications','Casablanca',14),
160 ○ (7,125,'Two children search for their father who is supposed to live in Germany. Their obsession for
161 this father figure will take them to the boundaries between childhood and adolescence.','Landscape in
162 the Mist',14);
```

```
164 • INSERT INTO Movie_type
165 values
166 (1,'Drama'),
167 (2,'Drama'),
168 (3,'Music'),
169 (3,'Romance'),
170 (4,'Mystery'),
171 (4,'Drama'),
172 (4,'Thriller'),
173 (5,'Drama'),
174 (5,'Comedy'),
175 (6,'Romance'),
176 (6,'Drama'),
177 (7,'Drama');
```

```
179 • insert INTO Movie_date
180 VALUES('1-11-22','6-8',1),
181 ('2-11-22', '6-8',1),
182 ('1-11-22','4-7',2),
183 ('4-11-22','9-12',2),
184 ('4-11-22','10-1', 3),
185 ('24-11-22','10-1',3),
186 ('6-11-22','5-8',4),
187 ('14-11-22','10-1',4),
188 ('5-11-22','4-7',4);
```

```
190 ● insert INTO Movie_date
191 VALUES ('6-11-22', '10-12', 5);
192 ● INSERT INTO Movie_date
193 VALUES ('17-11-22', '6-8', 5);
194 ● INSERT INTO Movie_date
195 VALUES ('25-11-22', '4-6', 5);
196 ● INSERT INTO Movie_date
197 VALUES ('18-11-22', '8-10', 6);
198 ● INSERT INTO Movie_date
199 VALUES ('22-11-22', '6-8', 6);
200 ● INSERT INTO Movie_date
201 VALUES ('22-11-22', '10-12', 6);
202 ● INSERT INTO Movie_date
203 VALUES ('28-11-22', '8-11', 7);
204 ● INSERT INTO Movie_date
205 VALUES ('15-11-22', '4-7', 7);
206 ● INSERT INTO Movie_date
207 VALUES ('21-11-22', '6-9', 7);
```





```
209 • INSERT INTO Customer
210 VALUES ('Br2011',442002795,'sara','alamoudi','sara@gmail.com','10-1-2002');
211 • INSERT INTO Customer
212 VALUES ('Br1011',442002346,'nora','alahmadi','norah@gmail.com','3-5-2001');
213 • INSERT INTO Customer
214 VALUES ('Br4011' ,452946295,'hind','algamdi','hind@gmail.com','8-4-2007');
215 • INSERT INTO Customer
216 VALUES ('Br2011' ,442852903,'mohammed','alzahrani','mohammed@gmail.com','12-8-2004');
217 • INSERT INTO Customer
218 VALUES ('Br3011' ,837652795,'ahmea','albarqi','ahmed@gmail.com','1-1-2002');
219 • INSERT INTO Customer
220 VALUES ('Br5011' ,982332795,'noras','nagro','noras@gmail.com','12-5-2000');
221 • INSERT INTO Customer
222 VALUES ('Br2011' ,335005795,'omar','khoger','omar@gmail.com','15-8-2004');
223 • INSERT INTO Customer
224 VALUES ('Br3011' ,93683195,'yaser','alrashdi','yaser@gmail.com','6-8-2008');
225 • INSERT INTO Customer
226 VALUES ('Br5011' ,874398126,'rawan','kamfar','rawan@gmail.com','19-11-1994');
227 • INSERT INTO Customer
228 VALUES ('Br4011' ,985623763,'rozan','hafez','rozan@gmail.com','15-3-1999');
```

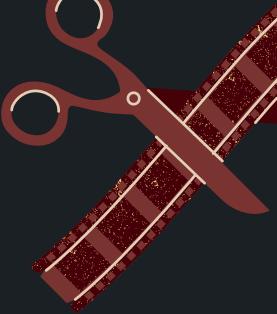


```
231 • Insert into exhibit
232 values(1,'Br4011'),(1,'Br3011'),(1,'Br2011') ,(1,'Br1011') ,(1,'Br5011') ,
233 (2,'Br5011') ,(2,'Br4011') ,(2,'Br2011') ,(2,'Br1011') ,(2,'Br3011') ,
234 (3,'Br5011') ,(3,'Br4011') ,(3,'Br3011') ,(3,'Br2011') ,(3,'Br1011') ,
235 (4,'Br1011') ,(4,'Br2011') ,(4,'Br3011') ,(4,'Br4011') ,(4,'Br5011') ,
236 (5,'Br5011') ,(5,'Br4011') ,(5,'Br3011') ,(5,'Br2011') ,(5,'Br1011') ,
237 (6,'Br5011') ,(6,'Br4011') ,(6,'Br3011') ,(6,'Br2011') ,(6,'Br1011') ,
238 (7,'Br1011') ,(7,'Br2011') ,(7,'Br3011') ,(7,'Br4011') ,(7,'Br5011');
239
```

```
240 • INSERT INTO Display_on
241 VALUES (1, 01),(1, 04);
242 • INSERT INTO Display_on
243 VALUES (2, 02),(2,04);
244 • INSERT INTO Display_on
245 VALUES (3, 03),(3,05);
246 • INSERT INTO Display_on
247 VALUES (4, 02),(4,04);
248 • INSERT INTO Display_on
249 VALUES (5, 03),(5,05);
250 • INSERT INTO Display_on
251 VALUES (6, 01),(6,04);
252 • INSERT INTO Display_on
253 VALUES (7, 03),(7,05);
```



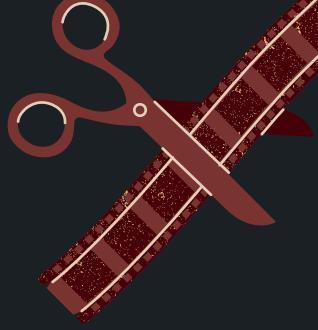
```
245 • Insert into SEAT
246 Values #screen1
247 ('A1', 01,'Standard'),
248 ('A2', 01,'Standard'),
249 ('A3', 01,'Standard'),
250 ('A4', 01,'Standard'),
251 ('A5', 01,'Standard'),
252 ('PA1', 01,'Premuim'),
253 ('PA2', 01,'Premuim'),
254 ('PA3', 01,'Premuim'),
255 ('PA4', 01,'Premuim'),
256 ('PA5', 01,'Premuim'),
257 #screen2
258 ('B1', 02,'Standard'),
259 ('B2', 02,'Standard'),
260 ('B3', 02,'Standard'),
261 ('B4', 02,'Standard'),
262 ('B5', 02,'Standard'),
263 ('PB1', 02,'Premuim'),
264 ('PB2', 02,'Premuim'),
265 ('PB3', 02,'Premuim'),
266 ('PB4', 02,'Premuim'),
267 ('PB5', 02,'Premuim'),
269 #screen3
270 ('C1', 03,'Standard'),
271 ('C2', 03,'Standard'),
272 ('C3', 03,'Standard'),
273 ('C4', 03,'Standard'),
274 ('C5', 03,'Standard'),
275 ('PC1', 03,'Premuim'),
276 ('PC2', 03,'Premuim'),
277 ('PC3', 03,'Premuim'),
278 ('PC4', 03,'Premuim'),
279 ('PC5', 03,'Premuim'),
280 #screen4
281 ('E1', 04,'SuitesSeat'),
282 ('E2', 04,'SuitesSeat'),
283 ('E3', 04,'SuitesSeat'),
284 ('E4', 04,'SuitesSeat'),
285 ('E5', 04,'SuitesSeat'),
286 #screen5
287 ('F1', 05,'SuitesSeat'),
288 ('F2', 05,'SuitesSeat'),
289 ('F3', 05,'SuitesSeat'),
290 ('F4', 05,'SuitesSeat'),
291 ('F5', 05,'SuitesSeat');
292
```



```
293 • INSERT INTO book
294 VALUES ('E1', 442002795,1,7492);
295 • INSERT INTO book
296 VALUES ('E2' , 442002346 ,2, 1945);
297 • INSERT INTO book
298 VALUES('PC3' ,452946295 , 3,1854);
299 • INSERT INTO book
300 VALUES('F3' , 442852903 , 5,1894);
301 • INSERT INTO book
302 VALUES('E4' , 837652795 , 4,1038666629);
303 • INSERT INTO Book
304 VALUES('F4',982332795,7,85848);
305 • INSERT INTO Book
306 VALUES('E3',335005795,6,93948);
```

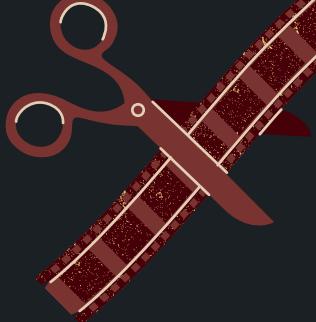
```
307 • INSERT INTO Book
308 VALUES ('F2',93683195,3,4920);
309 • INSERT INTO Book
310 VALUES ('B4',874398126,4,29311);
311 • INSERT INTO Book
312 VALUES('F5' ,985623763,5,39111);
313 • Insert into Book
314 values('A1',982332795,1,8758);
315 • insert into Book
316 values ('PA3',442852903 ,6,87587);
317 • insert into Book
318 values('F4',874398126,5,77804);
```

# Data Tables



|   | ManagerID | firstName | lastName | salary | city   | street           |
|---|-----------|-----------|----------|--------|--------|------------------|
| ▶ | 2345      | Omar      | Hariri   | 12.000 | Dammam | AlNaseem Street  |
|   | 5423      | Yaser     | Alghamdi | 11.500 | Jubail | AlFayha Street   |
|   | 5589      | Mohammed  | Alharbi  | 10.000 | Jeddah | AlHamra Street   |
|   | 6412      | Ammar     | khateeb  | 11.000 | Qassim | AlGhadeer Street |
|   | 8723      | Ahmad     | kinsara  | 10.500 | Riyadh | Alolia Street    |
| * | HULL      | HULL      | HULL     | HULL   | HULL   | HULL             |

|   | movieNumber | movieDuration | movieDescription                                      | movieName                     | limitAge |
|---|-------------|---------------|-------------------------------------------------------|-------------------------------|----------|
| ▶ | 1           | 100           | Julie is haunted by her grief after living through... | blue                          | 14       |
|   | 2           | 160           | The story of a virtuoso piano player who lives hi...  | The Legend of 1900            | 14       |
|   | 3           | 124           | A filmmaker recalls his childhood, when he fell in... | Cinema Paradiso               | 16       |
|   | 4           | 135           | Nothing is as it seems when a woman experien...       | I'm Thinking of Ending Things | 16       |
|   | 5           | 97            | A man arrives in Helsinki and gets beaten up so ...   | The Man Without a Past        | 14       |
|   | 6           | 102           | In Casablanca, Morocco in December 1941, a c...       | Casablanca                    | 14       |
|   | 7           | 125           | Two children search for their father who is supp...   | Landscape in the Mist         | 14       |
| * | HULL        | HULL          | HULL                                                  | HULL                          | HULL     |



Result Grid | Filter Rows:  Edit:

|   | screenNumber | screenType | screenAvailability |
|---|--------------|------------|--------------------|
| ▶ | 1            | standard   | 0                  |
|   | 2            | standard   | 0                  |
|   | 3            | suites     | 1                  |
|   | 4            | suites     | 0                  |
|   | 5            | standard   | 1                  |
| * | NULL         | NULL       | NULL               |

Result Grid | Filter Rows:  Edit:    Export/Imp:

|   | branchID | ManagerID | city   | street                         |
|---|----------|-----------|--------|--------------------------------|
| ▶ | Br1011   | 5589      | Jeddah | King fahad Br Rd               |
|   | Br2011   | 8723      | Riyadh | King Abdulaziz Br Rd           |
|   | Br3011   | 2345      | Dammam | Al Nouzhah                     |
|   | Br4011   | 6412      | Qassim | King Abdallah Ibn Abdu Al Aziz |
|   | Br5011   | 5423      | Jubail | Al Madinah Rd                  |
| * | NULL     | NULL      | NULL   | NULL                           |

|   | branchID | customerID | firstName | lastName  | email              | dateOfBirth |
|---|----------|------------|-----------|-----------|--------------------|-------------|
| ▶ | Br3011   | 93683195   | yaser     | alrashdi  | yaser@gmail.com    | 6-8-2008    |
|   | Br2011   | 335005795  | omar      | khoger    | omar@gmail.com     | 15-8-2004   |
|   | Br1011   | 442002346  | nora      | alahmadi  | norah@gmail.com    | 3-5-2001    |
|   | Br2011   | 442002795  | sara      | alamoudi  | sara@gmail.com     | 10-1-2002   |
|   | Br2011   | 442852903  | mohammed  | alzahrani | mohammed@gmail.com | 12-8-2004   |
|   | Br4011   | 452946295  | hind      | algamdi   | hind@gmail.com     | 8-4-2007    |
|   | Br3011   | 837652795  | ahmea     | albarqi   | ahmed@gmail.com    | 1-1-2002    |
|   | Br5011   | 874398126  | rawan     | kamfar    | rawan@gmail.com    | 19-11-1994  |
|   | Br3011   | 936831953  | yaser     | alrashdi  | yaser@gmail.com    | 6-8-2008    |
|   | Br5011   | 982332795  | noras     | nagro     | noras@gmail.com    | 12-5-2000   |
|   | Br4011   | 985623763  | rozan     | hafez     | rozan@gmail.com    | 15-3-1999   |
| * | NULL     | NULL       | NULL      | NULL      | NULL               | NULL        |



|   | seatNumber | screenNumber | seatType   |
|---|------------|--------------|------------|
| ▶ | A1         | 1            | Standard   |
|   | A2         | 1            | Standard   |
|   | A3         | 1            | Standard   |
|   | A4         | 1            | Standard   |
|   | A5         | 1            | Standard   |
|   | B1         | 2            | Standard   |
|   | B2         | 2            | Standard   |
|   | B3         | 2            | Standard   |
|   | B4         | 2            | Standard   |
|   | B5         | 2            | Standard   |
|   | C1         | 3            | Standard   |
|   | C2         | 3            | Standard   |
|   | C3         | 3            | Standard   |
|   | C4         | 3            | Standard   |
|   | C5         | 3            | Standard   |
|   | E1         | 4            | SuitesSeat |
|   | E2         | 4            | SuitesSeat |



Result Grid | Filter Rows: E

|  | seatNumber | screenNumber | seatType   |
|--|------------|--------------|------------|
|  | E3         | 4            | SuitesSeat |
|  | E4         | 4            | SuitesSeat |
|  | E5         | 4            | SuitesSeat |
|  | F1         | 5            | SuitesSeat |
|  | F2         | 5            | SuitesSeat |
|  | F3         | 5            | SuitesSeat |
|  | F4         | 5            | SuitesSeat |
|  | F5         | 5            | SuitesSeat |
|  | PA1        | 1            | Premuim    |
|  | PA2        | 1            | Premuim    |
|  | PA3        | 1            | Premuim    |
|  | PA4        | 1            | Premuim    |
|  | PA5        | 1            | Premuim    |
|  | PB1        | 2            | Premuim    |
|  | PB2        | 2            | Premuim    |
|  | PB3        | 2            | Premuim    |
|  | PB4        | 2            | Premuim    |

seat 1 x

|   | seatNumber | screenNumber | seatType |
|---|------------|--------------|----------|
| ▶ | PA1        | 1            | Premuim  |
|   | PA2        | 1            | Premuim  |
|   | PA3        | 1            | Premuim  |
|   | PA4        | 1            | Premuim  |
|   | PA5        | 1            | Premuim  |
|   | PB1        | 2            | Premuim  |
|   | PB2        | 2            | Premuim  |
|   | PB3        | 2            | Premuim  |
|   | PB4        | 2            | Premuim  |
|   | PB5        | 2            | Premuim  |
|   | PC1        | 3            | Premuim  |
|   | PC2        | 3            | Premuim  |
|   | PC3        | 3            | Premuim  |
|   | PC4        | 3            | Premuim  |
|   | PC5        | 3            | Premuim  |
| * | NUL        | NUL          | NUL      |

|   | movieNumber | screenNumber |
|---|-------------|--------------|
|   | 5           | 3            |
|   | 7           | 3            |
|   | 1           | 4            |
|   | 2           | 4            |
|   | 4           | 4            |
|   | 6           | 4            |
|   | 3           | 5            |
|   | 5           | 5            |
|   | 7           | 5            |
| * | NUL         | NUL          |



|   | movieNumber | branchID |
|---|-------------|----------|
| ▶ | 1           | Br1011   |
|   | 2           | Br1011   |
|   | 3           | Br1011   |
|   | 4           | Br1011   |
|   | 5           | Br1011   |
|   | 6           | Br1011   |
|   | 7           | Br1011   |
|   | 1           | Br2011   |
|   | 2           | Br2011   |
|   | 3           | Br2011   |
|   | 4           | Br2011   |
|   | 5           | Br2011   |
|   | 6           | Br2011   |
|   | 7           | Br2011   |
|   | 1           | Br3011   |



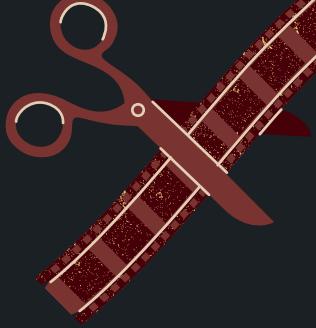
|   | movieNumber | branchID |
|---|-------------|----------|
|   | 2           | Br3011   |
|   | 3           | Br3011   |
|   | 4           | Br3011   |
|   | 5           | Br3011   |
|   | 6           | Br3011   |
|   | 7           | Br3011   |
|   | 1           | Br4011   |
|   | 2           | Br4011   |
|   | 3           | Br4011   |
|   | 4           | Br4011   |
|   | 5           | Br4011   |
|   | 6           | Br4011   |
|   | 7           | Br4011   |
|   | 1           | Br5011   |
|   | 2           | Br5011   |
|   | 3           | Br5011   |
|   | 4           | Br5011   |
|   | 5           | Br5011   |
|   | 6           | Br5011   |
|   | 7           | Br5011   |
| * | NULL        | NULL     |



|   | movieNumber | movieType |
|---|-------------|-----------|
| ▶ | 1           | Drama     |
|   | 2           | Drama     |
|   | 3           | Music     |
|   | 3           | Romance   |
|   | 4           | Drama     |
|   | 4           | Mystery   |
|   | 4           | Thriller  |
|   | 5           | Comedy    |
|   | 5           | Drama     |
|   | 6           | Drama     |
|   | 6           | Romance   |
|   | 7           | Drama     |
| * | HULL        | HULL      |



|   | ManagerID | phoneNumber |
|---|-----------|-------------|
| ▶ | 2345      | 509994423   |
|   | 5423      | 569238163   |
|   | 5589      | 535648430   |
|   | 6412      | 543388756   |
|   | 8723      | 543321876   |
| * | HULL      | HULL        |



Result Grid | Filter Rows:  Edit:

|   | seatNumber | customerID | movieNumber | bookingNumber |
|---|------------|------------|-------------|---------------|
| ▶ | A1         | 335005795  | 1           | 8758          |
|   | A1         | 982332795  | 1           | 8758          |
|   | B4         | 874398126  | 4           | 29311         |
|   | E2         | 442002346  | 2           | 1945          |
|   | E3         | 335005795  | 6           | 93948         |
|   | E4         | 837652795  | 4           | 1038666629    |
|   | F2         | 93683195   | 3           | 4920          |
|   | F3         | 442852903  | 5           | 1894          |
|   | F3         | 452946295  | 3           | 1854          |
|   | F4         | 874398126  | 5           | 77804         |
|   | F4         | 982332795  | 7           | 85848         |
|   | F5         | 985623763  | 5           | 39111         |
|   | PA3        | 335005795  | 6           | 87587         |
|   | PA3        | 442852903  | 6           | 87587         |
|   | PC3        | 452946295  | 3           | 1854          |
| * | NULL       | NULL       | NULL        | NULL          |

Result Grid | Filter Rows:  Edit:

|   | movieDate | movieTime | movieNumber |
|---|-----------|-----------|-------------|
| ▶ | 1-11-22   | 6-8       | 1           |
|   | 2-11-22   | 6-8       | 1           |
|   | 1-11-22   | 4-7       | 2           |
|   | 4-11-22   | 9-12      | 2           |
|   | 24-11-22  | 10-1      | 3           |
|   | 4-11-22   | 10-1      | 3           |
|   | 14-11-22  | 10-1      | 4           |
|   | 5-11-22   | 4-7       | 4           |
|   | 17-11-22  | 6-8       | 5           |
|   | 25-11-22  | 4-6       | 5           |
|   | 18-11-22  | 8-10      | 6           |
|   | 22-11-22  | 10-12     | 6           |
|   | 22-11-22  | 6-8       | 6           |
|   | 15-11-22  | 4-7       | 7           |
|   | 21-11-22  | 6-9       | 7           |
|   | 28-11-22  | 8-11      | 7           |
| * | NULL      | NULL      | NULL        |

# upadte and delete



```
update Movie_type
 set movieType='Thriller'
 where movieType ='Thrilllemovie_typer';
```

```
update MANAGER_PHONE
 set phoneNumber=0535648430
 where phoneNumber= 0568736292;
```

```
#delete
 delete from book
 where bookingNumber=7492;
```

|   | ManagerID | phoneNumber |
|---|-----------|-------------|
|   | 2345      | 509994423   |
|   | 5423      | 569238163   |
| ▶ | 5589      | 535648430   |
|   | 6412      | 543388756   |
|   | 8723      | 543321876   |
| * | NULL      | NULL        |

|    | seatNumber | customerID | movieNumber | bookingNumber |
|----|------------|------------|-------------|---------------|
|    | A1         | 335005795  | 1           | 8758          |
|    | A1         | 982332795  | 1           | 8758          |
|    | B4         | 874398126  | 4           | 29311         |
|    | E2         | 442002346  | 2           | 1945          |
|    | E3         | 335005795  | 6           | 93948         |
|    | E4         | 837652795  | 4           | 1038666629    |
|    | F2         | 93683195   | 3           | 4920          |
|    | F3         | 442852903  | 5           | 1894          |
|    | F3         | 452946295  | 3           | 1854          |
|    | F4         | 874398126  | 5           | 77804         |
|    | F4         | 982332795  | 7           | 85848         |
|    | F5         | 985623763  | 5           | 39111         |
|    | PA3        | 335005795  | 6           | 87587         |
|    | PA3        | 442852903  | 6           | 87587         |
|    | PC3        | 452946295  | 3           | 1854          |
| ▶* | NULL       | NULL       | NULL        | NULL          |

# delete

```
delete from movie_date
where movieDate='6-11-22';
```

|   | movieDate | movieTime | movieNumber |
|---|-----------|-----------|-------------|
| ▶ | 1-11-22   | 6-8       | 1           |
|   | 2-11-22   | 6-8       | 1           |
|   | 1-11-22   | 4-7       | 2           |
|   | 4-11-22   | 9-12      | 2           |
|   | 24-11-22  | 10-1      | 3           |
|   | 4-11-22   | 10-1      | 3           |
|   | 14-11-22  | 10-1      | 4           |
|   | 5-11-22   | 4-7       | 4           |
|   | 17-11-22  | 6-8       | 5           |
|   | 25-11-22  | 4-6       | 5           |
|   | 18-11-22  | 8-10      | 6           |
|   | 22-11-22  | 10-12     | 6           |
|   | 22-11-22  | 6-8       | 6           |
|   | 15-11-22  | 4-7       | 7           |
|   | 21-11-22  | 6-9       | 7           |
|   | 28-11-22  | 8-11      | 7           |
|   | NULL      | NULL      | NULL        |

# SELECT



```
This statement displays the phone number for the managers who have an ID of 5589 or 5423
SELECT phoneNumber
FROM MANAGER_PHONE
WHERE ManagerID = 5589
OR ManagerID = 5423;

#Displays the first and last name of the customer and the number of customers who have a birthdate of (1-1-2002) or (10-1-2002)
SELECT firstName, lastName, COUNT(customerID) AS customers
FROM Customer
GROUP BY dateOfBirth
HAVING dateOfBirth = '1-1-2002'
OR dateOfBirth = '10-1-2002';

#List all details of movies which display on screen number 4
SELECT *
FROM Movie
WHERE movieNumber IN (SELECT DISTINCT movieNumber
FROM Display_on
WHERE screenNumber IN (SELECT screenNumber
FROM Screen
WHERE screenNumber=04));
```

Result Grid | Filter Rows: Export/Import: Wrap Cell Content:

| phoneNumber |
|-------------|
| 569238163   |
| 535648430   |

Result Grid | Filter Rows: Edit: Export/Import: Wrap Cell Content:

| movieNumber | movieDuration | movieDescription                                      | movieName                     | limitAge |
|-------------|---------------|-------------------------------------------------------|-------------------------------|----------|
| 1           | 100           | Julie is haunted by her grief after living through... | blue                          | 14       |
| 2           | 160           | The story of a virtuoso piano player who lives hi...  | The Legend of 1900            | 14       |
| 4           | 135           | Nothing is as it seems when a woman experien...       | I'm Thinking of Ending Things | 16       |
| 6           | 102           | In Casablanca, Morocco in December 1941, a c...       | Casablanca                    | 14       |
| *           | NULL          | NULL                                                  | NULL                          | NULL     |

Result Grid | Filter Rows:

| firstName | lastName | customers |
|-----------|----------|-----------|
| sara      | alamoudi | 1         |
| ahmea     | albarqi  | 1         |

```

#For each Book that has a movie, customer, and seat, list its booking number, movie number& name, customer ID & name, and seat number
SELECT bookingNumber,m.movieNumber,movieName,c.customerID,firstName,s.seatNumber,seatType
FROM book b, movie m, customer c, seat s
WHERE m.movieNumber = b.movieNumber AND
c.customerID = b.customerID AND
s.seatNumber = b.seatNumber;

SHOW AVALBILE & NOT AVALBILE SCREENS , AND ITS TYPE ALSO THE SECREEN NUMBER.
SELECT *
FROM Screen
GROUP BY screenNumber
HAVING screenType='Standard' OR screenType='suites';

```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

| bookingNumber | movieNumber | movieName                     | customerID | firstName | seatNumber | seatType   |
|---------------|-------------|-------------------------------|------------|-----------|------------|------------|
| 8758          | 1           | blue                          | 335005795  | omar      | A1         | Standard   |
| 8758          | 1           | blue                          | 982332795  | noras     | A1         | Standard   |
| 1945          | 2           | The Legend of 1900            | 442002346  | nora      | E2         | SuitesSeat |
| 4920          | 3           | Cinema Paradiso               | 93683195   | yaser     | F2         | SuitesSeat |
| 1854          | 3           | Cinema Paradiso               | 452946295  | hind      | F3         | SuitesSeat |
| 1854          | 3           | Cinema Paradiso               | 452946295  | hind      | PC3        | Premium    |
| 29311         | 4           | I'm Thinking of Ending Things | 874398126  | rawan     | B4         | Standard   |
| 1038666629    | 4           | I'm Thinking of Ending Things | 837652795  | ahmea     | E4         | SuitesSeat |
| 1894          | 5           | The Man Without a Past        | 442852903  | mohammed  | F3         | SuitesSeat |
| 77804         | 5           | The Man Without a Past        | 985623763  | rawan     | F4         | SuitesSeat |
| 39111         | 5           | The Man Without a Past        | 985623763  | rozan     | F5         | SuitesSeat |
| 93948         | 6           | Casablanca                    | 335005795  | omar      | E3         | SuitesSeat |
| 87587         | 6           | Casablanca                    | 335005795  | omar      | PA3        | Premium    |
| 87587         | 6           | Casablanca                    | 442852903  | mohammed  | PA3        | Premium    |
| 85848         | 7           | Landscape in the Mist         | 982332795  | noras     | F4         | SuitesSeat |

Result Grid | Filter Rows: | Export: |

|   | screenNumber | screenType | screenAvailability |
|---|--------------|------------|--------------------|
| ▶ | 1            | standard   | 0                  |
| ▶ | 2            | standard   | 0                  |
| ▶ | 3            | suites     | 1                  |
| ▶ | 4            | suites     | 0                  |
| ▶ | 5            | standard   | 1                  |
| * | HULL         | HULL       | HULL               |



```
display number of Drama movies
SELECT MovieType , count(MovieType) AS movieCount
FROM Movie_type
GROUP BY MovieType
HAVING MovieType IN ('Drama');

#list first name, last name, branchID, city.
SELECT m.ManagerID , m.firstName , m.lastName , b.branchID , b.city
FROM Manager m , Branch b
WHERE m.ManagerID=b.ManagerID;

display all romance movies
SELECT *
FROM Movie_type
WHERE movieType IN ('Romance');
```

Result Grid | Filter Rows:

|   | movieNumber | movieType |
|---|-------------|-----------|
| ▶ | 3           | Romance   |
| ▶ | 6           | Romance   |
| * | NULL        | NULL      |

Result Grid | Filter Rows:

| MovieType | movieCount |
|-----------|------------|
| Drama     | 6          |

Result Grid | Filter Rows: Export: | W

|   | ManagerID | firstName | lastName | branchID | city   |
|---|-----------|-----------|----------|----------|--------|
| ▶ | 2345      | Omar      | Hariri   | Br3011   | Dammam |
| ▶ | 5423      | Yaser     | Alghamdi | Br5011   | Jubail |
| ▶ | 5589      | Mohammed  | Alharbi  | Br1011   | Jeddah |
| ▶ | 6412      | Ammar     | khateeb  | Br4011   | Qassim |
| ▶ | 8723      | Ahmad     | kinsara  | Br2011   | Riyadh |



```
#display all movie details where limit ages above 14
SELECT *
FROM Movie
WHERE limitAge >14;

#select all details from the movie and order by ascending order
SELECT *
FROM Movie
ORDER BY limitAge ASC;

#order the seat type based on which one is Premuim in which Screen
select *
from seat
where seatType='Premuim'
order by seatType;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

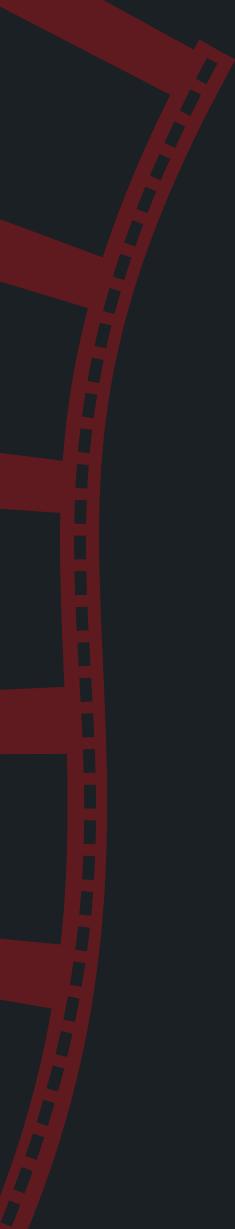
|   | movieNumber | movieDuration | movieDescription                                      | movieName                     | limitAge |
|---|-------------|---------------|-------------------------------------------------------|-------------------------------|----------|
| ▶ | 3           | 124           | A filmmaker recalls his childhood, when he fell in... | Cinema Paradiso               | 16       |
| ▶ | 4           | 135           | Nothing is as it seems when a woman experien...       | I'm Thinking of Ending Things | 16       |
| * | NULL        | NULL          | NULL                                                  | NULL                          | NULL     |

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content: |

|   | movieNumber | movieDuration                                         | movieDescription                                      | movieName | limitAge |
|---|-------------|-------------------------------------------------------|-------------------------------------------------------|-----------|----------|
| ▶ | 1           | 100                                                   | Julie is haunted by her grief after living through... | blue      | 14       |
| 2 | 160         | The story of a virtuoso piano player who lives hi...  | The Legend of 1900                                    | 14        |          |
| 5 | 97          | A man arrives in Helsinki and gets beaten up so ...   | The Man Without a Past                                | 14        |          |
| 6 | 102         | In Casablanca, Morocco in December 1941, a c...       | Casablanca                                            | 14        |          |
| 7 | 125         | Two children search for their father who is supp...   | Landscape in the Mist                                 | 14        |          |
| 3 | 124         | A filmmaker recalls his childhood, when he fell in... | Cinema Paradiso                                       | 16        |          |
| 4 | 135         | Nothing is as it seems when a woman experien...       | I'm Thinking of Ending Things                         | 16        |          |
| * | NULL        | NULL                                                  | NULL                                                  | NULL      | NULL     |

Result Grid | Filter Rows: |

| seatNumber | screenNumber | seatType |
|------------|--------------|----------|
| PA1        | 1            | Premuim  |
| PA2        | 1            | Premuim  |
| PA3        | 1            | Premuim  |
| PA4        | 1            | Premuim  |
| PA5        | 1            | Premuim  |
| PB1        | 2            | Premuim  |
| PB2        | 2            | Premuim  |
| PB3        | 2            | Premuim  |
| PB4        | 2            | Premuim  |
| PB5        | 2            | Premuim  |
| PC1        | 3            | Premuim  |
| PC2        | 3            | Premuim  |
| PC3        | 3            | Premuim  |
| PC4        | 3            | Premuim  |
| PC5        | 3            | Premuim  |
| *          | NULL         | NULL     |



```
display the manager has salary >11.000
select *
from Manager
group by ManagerID
having salary>11.000;

select all details from the movie and order by movieDuration in descending order
SELECT movieDuration,movieName
FROM Movie
ORDER BY movieDuration DESC;
```

|   | ManagerID | firstName | lastName | salary | city   | street          |
|---|-----------|-----------|----------|--------|--------|-----------------|
| ▶ | 2345      | Omar      | Hariri   | 12.000 | Dammam | AlNaseem Street |
|   | 5423      | Yaser     | Alghamdi | 11.500 | Jubail | AlFayha Street  |
| * | NULL      | NULL      | NULL     | NULL   | NULL   | NULL            |

|   | movieDuration | movieName                     |
|---|---------------|-------------------------------|
| ▶ | 97            | The Man Without a Past        |
|   | 160           | The Legend of 1900            |
|   | 135           | I'm Thinking of Ending Things |
|   | 125           | Landscape in the Mist         |
|   | 124           | Cinema Paradiso               |
|   | 102           | Casablanca                    |
|   | 100           | blue                          |

display name and salary of all managers and  
order by their salary

```
SELECT firstName,ManagerID,salary
FROM Manager
ORDER BY salary ;
```

Result Grid | Filter Rows:

|   | firstName | ManagerID | salary |
|---|-----------|-----------|--------|
| ▶ | Mohammed  | 5589      | 10.000 |
|   | Ahmad     | 8723      | 10.500 |
|   | Ammar     | 6412      | 11.000 |
|   | Yaser     | 5423      | 11.500 |
|   | Omar      | 2345      | 12.000 |
| ● | NULL      | NULL      | NULL   |

V.I.P

## **Difficulties that we faced :**

**1.The time was too short  
to complete the project .**

**2.we can not shared MYSQL file  
and work on it simultaneously.**

