

EVENT MANAGEMENT COMPANY

GROUP: 3 SECTION: 8

WEAAM RASHED - 444015412

RENAD ALI ALHASANI - 444007199

LAMA ABDULLAH ALOUFI - 44411741

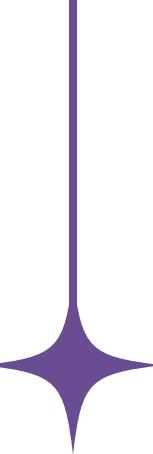
LAMYAA HILAL ALMUTAIRI - 444005917

MANAR SALEH ALQURASHI - 444005895

JANA MOHAMMED ALYAMAN - 444006930

DATABASE FUNDAMENTALS
CS2231





PHASE ONE

T A S K S

Tasks	Renad	Lamia	Lama	Weeam	Jana	Manar
Business Rules	★		★			
Chen's Notation		★			★	
UML				★		★

BUSINESS RULES

The company has many events for the Clint to choose from.

The identifier for EVENT is EventID. Other attributes are Date, Event_Type.

Each event is held at one venue that has a specific location.

The identifier for VENUE is VenuelD other attributes are Venue_name, Capacity, Contact_Number, Location.

Multiple employee can work at multiple events, but one employee can manages at least one event.



BUSSNIUSE RULES

The identifier for EMPLOYEE is EmployeeID other attributes are Name consisting of fName and lName, Position, Phone_Number, Email. Multiple suppliers can vendor to multiple events. The identifier for SUPPLIER is SuppliersID, other attributes are Company_Name, Contact_Number. Each supplier can provide multiple services. The identifier for SERVICE is ServiceID another attribute is Type.



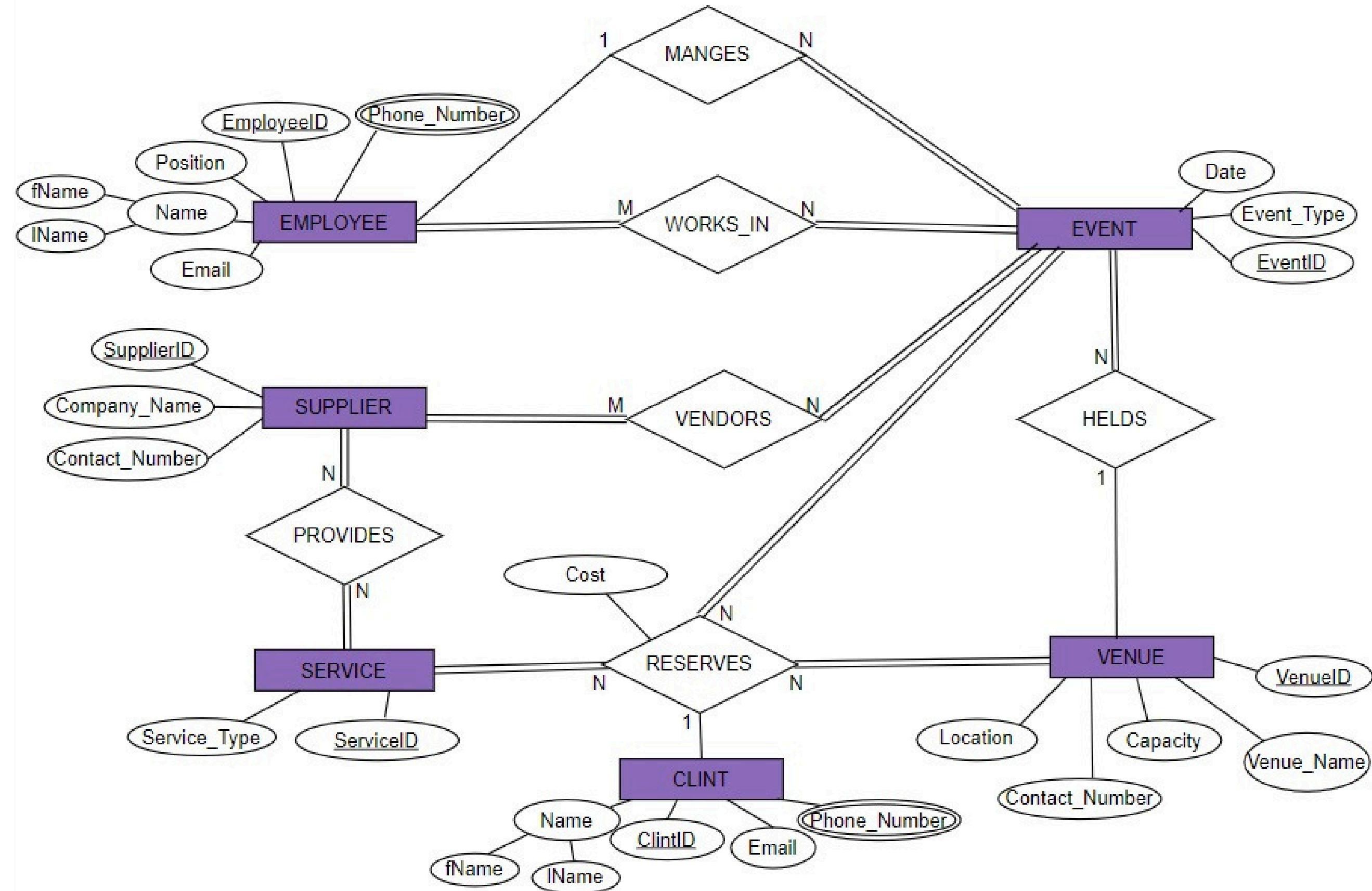
B U S S N I U S E R U L E S

A Clint can reserve and chose the venue, services, suppliers and specifies the event thru the reserve relationship.

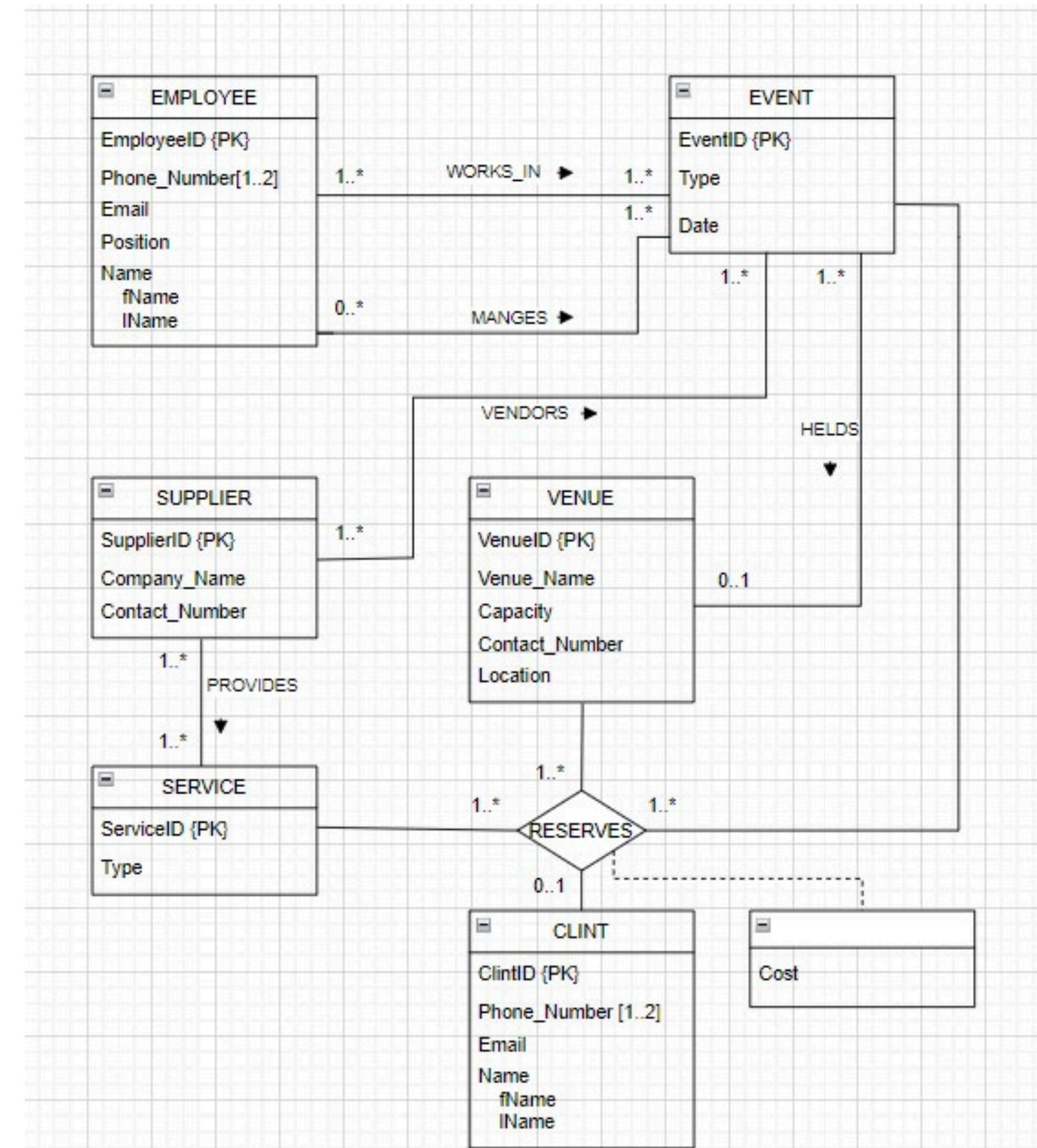
To confirm the reservation the Clint information is needed. The identifier for the Clint is ClintID, another attributes for the CLINT is: Name consisting of fName and lName, Phone_Number, Email.

The attribute associated with the reserve relation is Cost.

★ CHEN'S NOTAITION ★



★ U M L D I A G R A M ★





PHASE TWO

T A S K S

Tasks	Renad	Lamia	Lama	Weeam	Jana	Manar
ER to Relational Mapping		★		★		★
Normalization	★		★		★	

MAPPING ER INTO RELATIONAL SCHEMA

- 1) Mapping to Regular entity types
- 2) Mapping to weak entity types
- 3) Mapping to binary (1:1) relationship types
- 4) Mapping to binary (1:M) relationship types
- 5) Mapping to binary (m:n) relationship types
- 6) Mapping to multivalued attributes
- 7) Mapping to n-ary relationship type

STEP 1

MAPPING OF REGULAR ENTITIES TYPES

EMPLOYEE

fName	lName	Position	Email	<u>EmployeeID</u>
-------	-------	----------	-------	-------------------

EVENT

Event_Type	Date	<u>EventID</u>
------------	------	----------------

VENUE

Location	Capacity	Venue_Name	Contact_Number	<u>VenueID</u>
----------	----------	------------	----------------	----------------

SUPPLIER

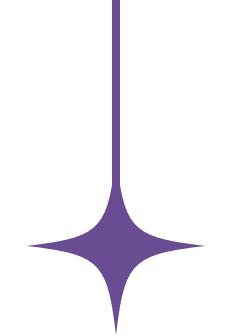
Company_Name	Contact_Number	<u>SupplierID</u>
--------------	----------------	-------------------

SERVICE

Service_Type	<u>ServiceID</u>
--------------	------------------

CLIENT

fName	lName	Email	<u>ClientID</u>
-------	-------	-------	-----------------



STEP 2

Mapping of weak entity types:
There are no weak intites

STEP 3

Mapping of 1:1 relationship types:
There are no 1:1 relationships

STEP 4

MAPPING OF
1:M
RELATIONSHIP
TYPES

EMPLOYEE

fName	lName	Position	Email	<u>EmployeeID</u>
-------	-------	----------	-------	-------------------

EVENT

Event_Type	Date	<u>EventID</u>	EmplD	VenID
------------	------	----------------	-------	-------

VENUE

Location	Capacity	Venue-Name	Contact -Number	<u>VenuelD</u>
----------	----------	------------	-----------------	----------------

SUPPLIER

Company_Name	Contact_Number	<u>SupplierID</u>
--------------	----------------	-------------------

SERVICE

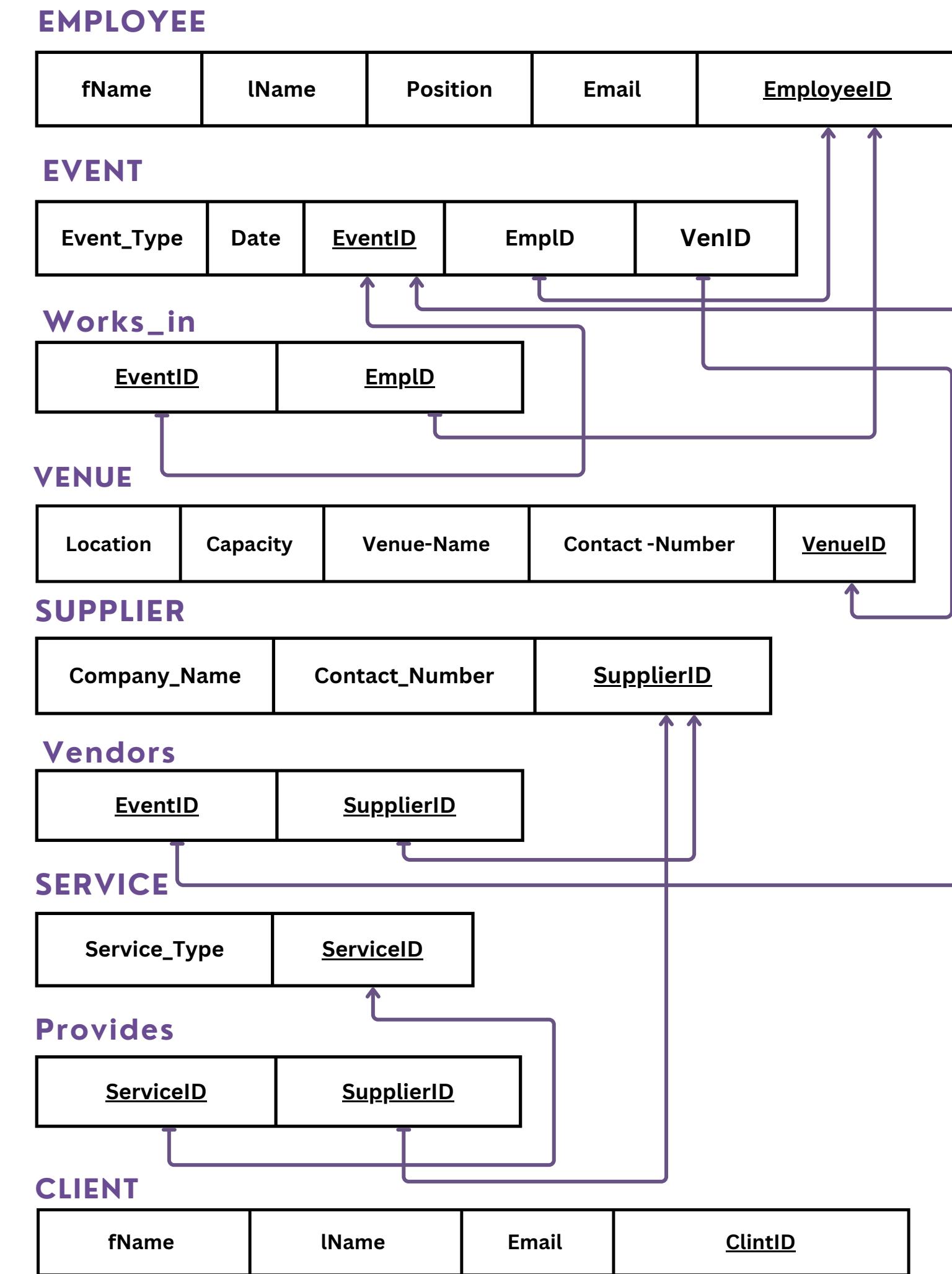
Service_Type	<u>ServiceID</u>
--------------	------------------

CLIENT

fName	lName	Email	<u>ClintID</u>
-------	-------	-------	----------------

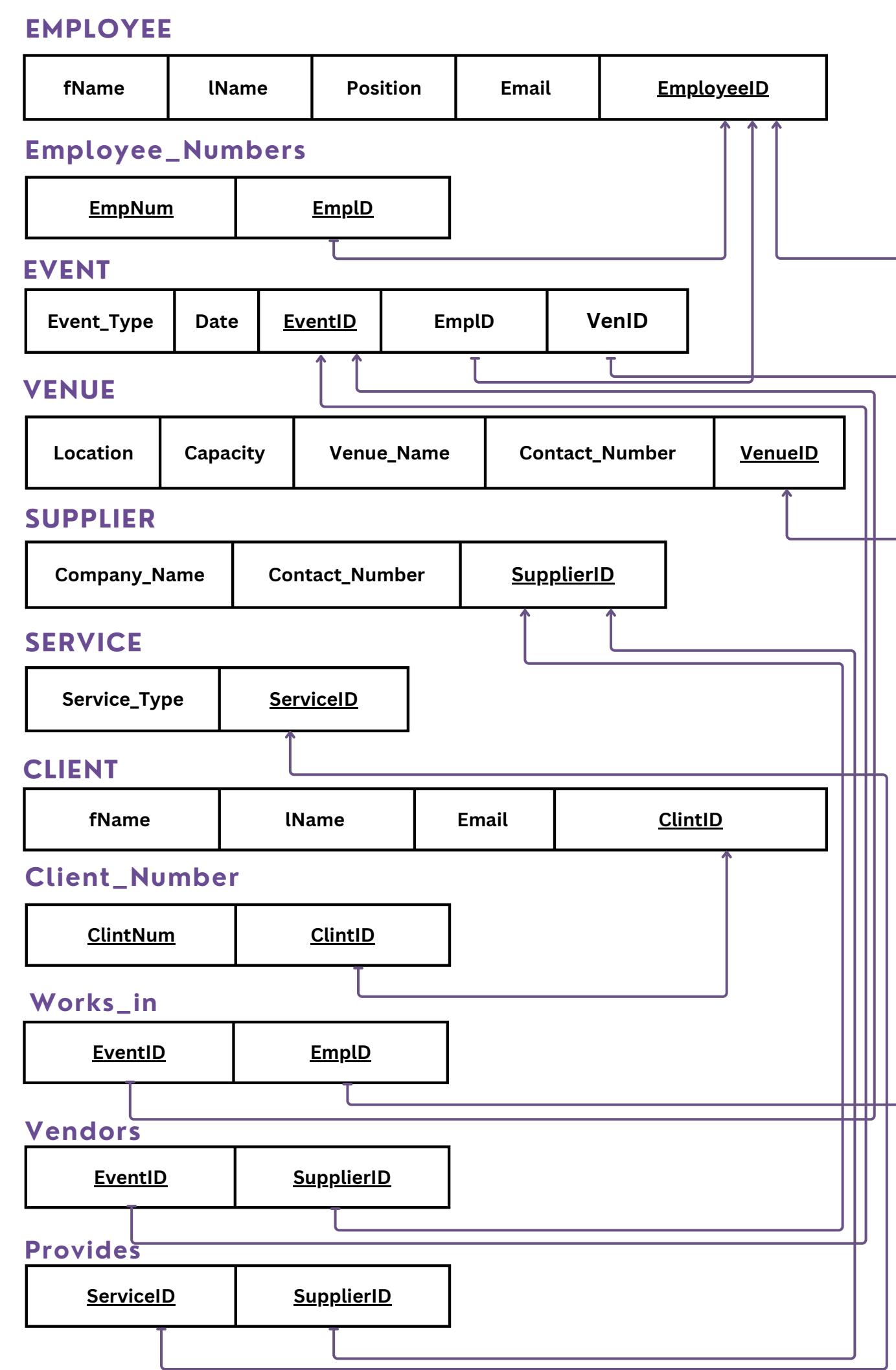
STEP 5

MAPPING OF M:N RELATIONSHIP TYPES



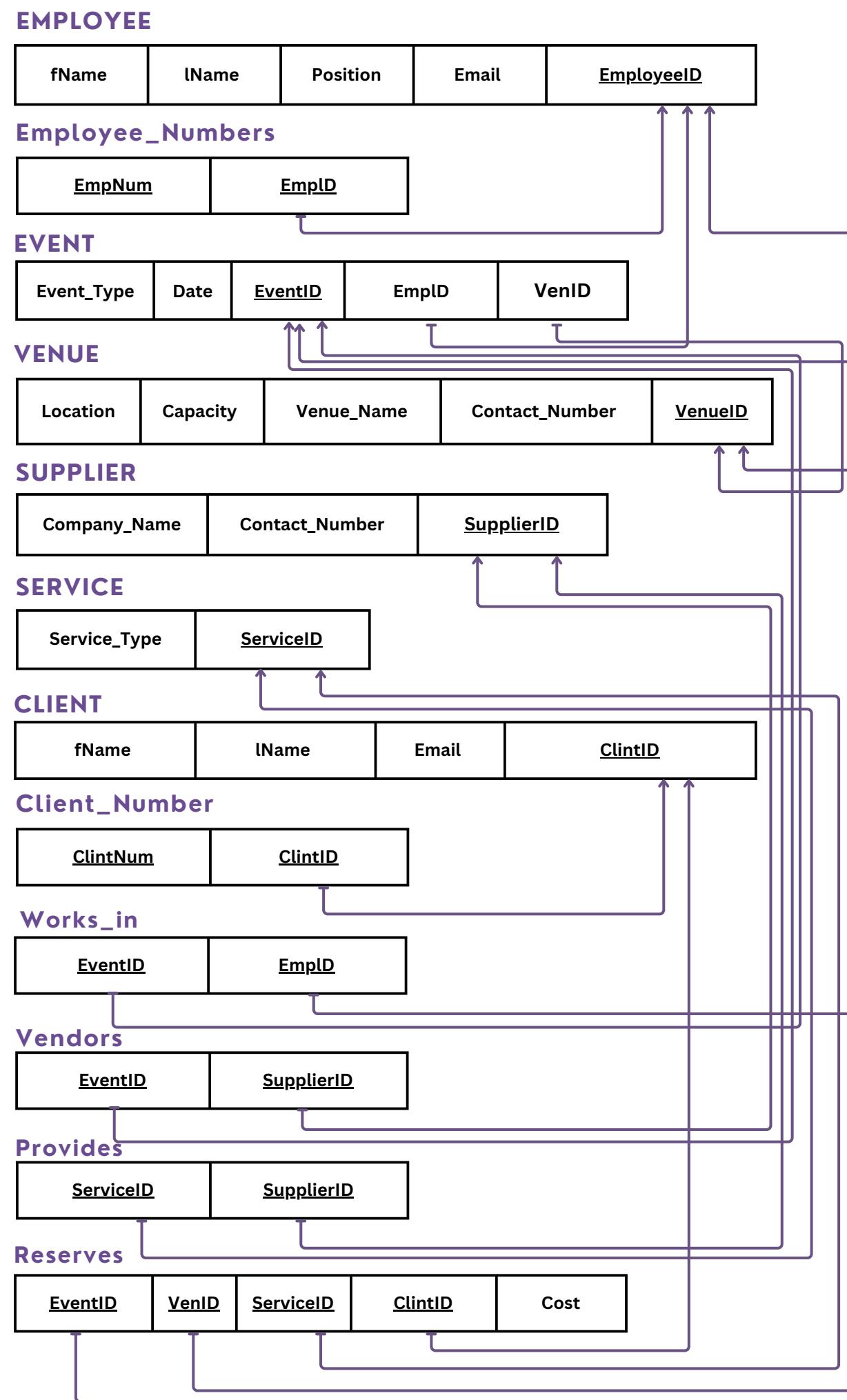
STEP 6

MAPPING OF MULTIVALUED ATTRIBUTES

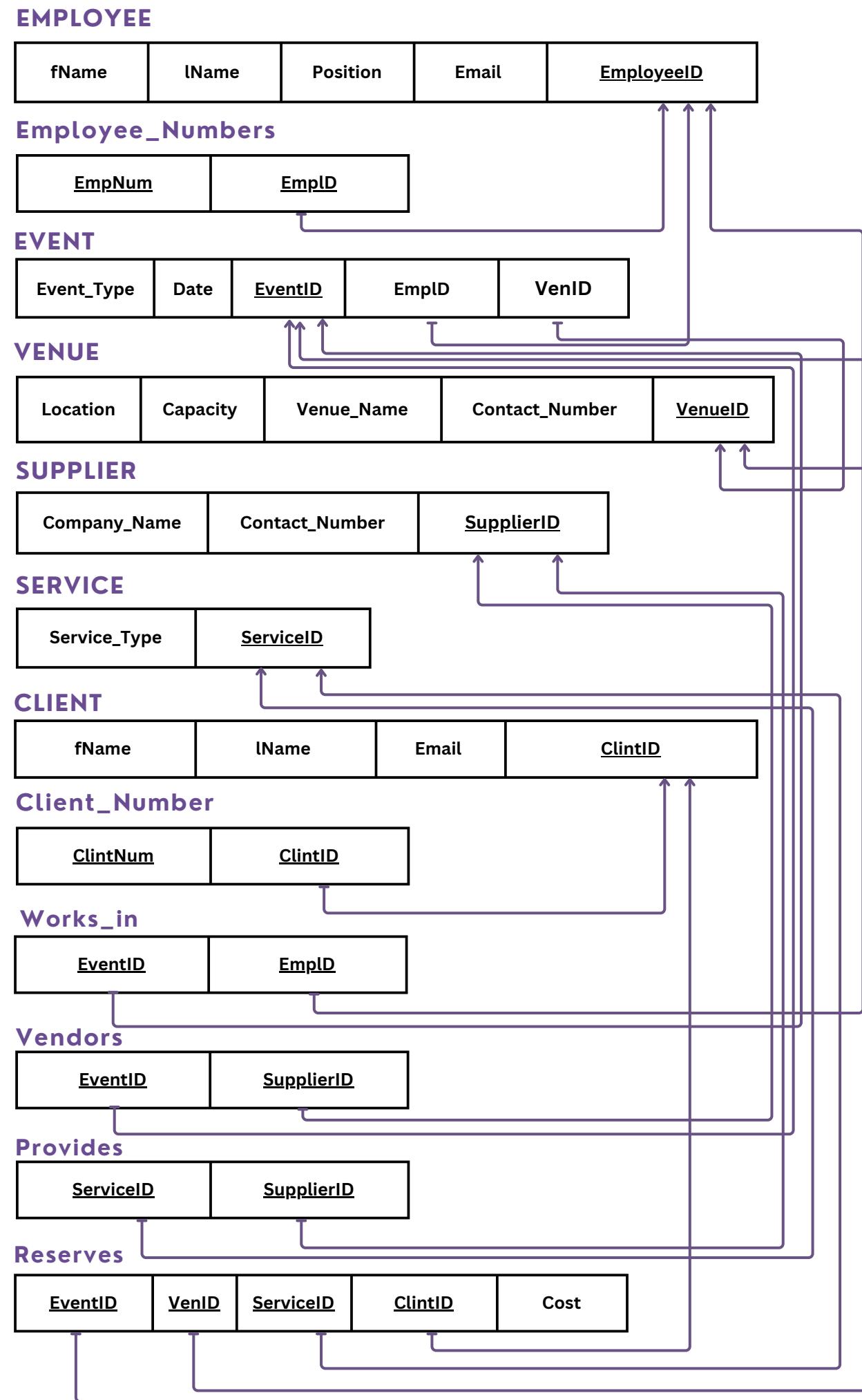


STEP 7

MAPPING OF N-ARY RELATIONSHIP TYPES



FINAL MAPPING



NORMALIZATION

EMPLOYEE

fName	lName	Position	Email	<u>EmployeeID</u>
-------	-------	----------	-------	-------------------

EVENT

Event_Type	Date	<u>EventID</u>	EmplD	VenID
------------	------	----------------	-------	-------

Two tables are in:

1NF (No Multivalued Attributes)

2NF (No partial dependency)

3NF (No transitive dependency)

NORMALIZATION

VENUE

Location	Capacity	Venue_Name	Contact_Number	<u>VenueID</u>
----------	----------	------------	----------------	----------------

Table is in:

1NF (No multivalued Attributes)

2NF (No partial dependency)

But not in 3NF (transitive dependency)

VENUE

Capacity	Venue_Name	Contact_Number	<u>VenueID</u>
----------	------------	----------------	----------------

VENUE_location

Location	<u>Venue_Name</u>
----------	-------------------

Now table is in:

1NF (No multivalued Attributes)

2NF (No partial dependency)

3NF (No transitive dependency)

★ NORMALIZATION ★

SUPPLIER

Company_Name	Contact_Number	<u>SupplierID</u>
--------------	----------------	-------------------

Table is in:

1NF (No multivalued Attributes)

2NF (No partial dependency)

But not in 3NF (transitive dependency)

SUPPLIER

Company_Name	<u>SupplierID</u>
--------------	-------------------

Now table is in:

1NF (No multivalued Attributes)

2NF (No partial dependency)

3NF (No transitive dependency)

SUPPLIER_Number

<u>Company_Name</u>	Contact_Number
---------------------	----------------

★ NORMALIZATION ★

SERVICE

Service_Type	<u>ServiceID</u>
--------------	------------------

CLIENT

fName	lName	Email	<u>ClintID</u>
-------	-------	-------	----------------

Two tables are in:

1NF (No Multivalued Attributes)

2NF (No partial dependency)

3NF (No transitive dependency)

NORMALIZATION

Works_in

<u>EventID</u>	<u>EmplD</u>

Vendors

<u>EventID</u>	<u>SupplierID</u>

Provides

<u>ServiceID</u>	<u>SupplierID</u>

Three tables are in:

1NF (No Multivalued Attributes)

2NF (No partial dependency)

3NF (No transitive dependency)

★ NORMALIZATION ★

Employee_Numbers

<u>EmpNum</u>	<u>EmplD</u>

Client_Number

<u>ClintNum</u>	<u>ClintID</u>

Reserves

<u>EventID</u>	<u>VenID</u>	<u>ServiceID</u>	<u>ClintID</u>	<u>Cost</u>

Two tables are in:

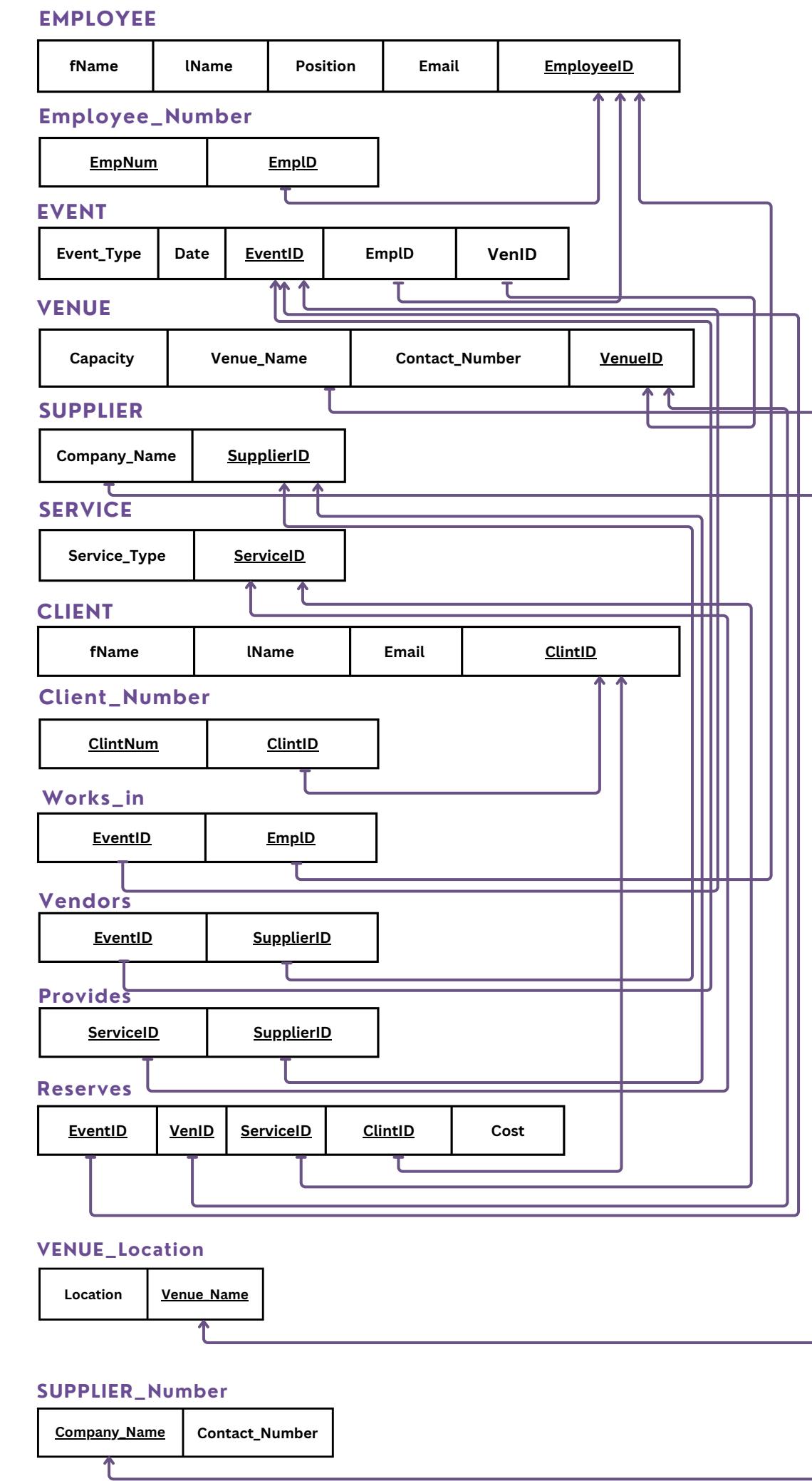
1NF (No Multivalued Attributes)

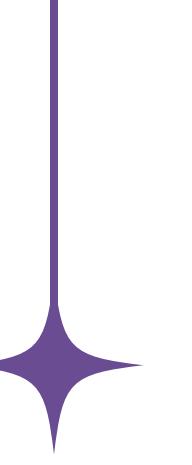
2NF (No partial dependency)

3NF (No transitive dependency)

FINAL MAPPING

AFTER NORMALIZATION



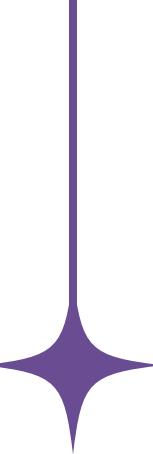


PHASE THREE



T A S K S

Tasks	Renad	Lamia	Lama	Weeam	Jana	Manar
Definition			★	★		
Manipulation		★			★	
Queries using SELECT	★					★



DEFINITION

DEFINITION

```
1 • CREATE SCHEMA IF NOT EXISTS EventManagementDB;
2
3 • USE EventManagementDB;
4
5
6 • ┌─ CREATE TABLE EMPLOYEE (
7     EmployeeID INT(2) NOT NULL ,
8     FName VARCHAR(20) ,
9     LName VARCHAR(20) ,
10    Position VARCHAR(20) ,
11    Email VARCHAR(255) UNIQUE ,
12    constraint EMPLOYEE_PK PRIMARY KEY (EmployeeID)
13
14 );
15 • ┌─ CREATE TABLE VENUE_Location (
16     Location VARCHAR(20),
17     Venue_Name VARCHAR(20) NOT NULL,
18     constraint Venue_Name_PK PRIMARY KEY(Venue_Name)
19 );
```

DEFINITION

```
21 • Ⓛ CREATE TABLE VENUE (
22     VenueID INT(2) NOT NULL ,
23     Capacity VARCHAR(20),
24     Location VARCHAR(20),
25     Venue_Name VARCHAR(20) ,
26     Contact_Number VARCHAR(15) ,
27     constraint VENUE_PK PRIMARY KEY (VenueID),
28     constraint VENUE_FK FOREIGN KEY (Venue_Name) REFERENCES VENUE_Location(Venue_Name)
29 );
30
31 • Ⓛ CREATE TABLE EVENT (
32     EventID INT(2) NOT NULL,
33     Event_Type VARCHAR(20),
34     Date DATE NOT NULL,
35     EmpID INT(2),
36     VenID INT(2),
37     constraint EVENT_PK PRIMARY KEY (EventID),
38     constraint EVENT_FK1 FOREIGN KEY (EmpID) REFERENCES EMPLOYEE(EmployeeID),
39     constraint EVENT_FK2 FOREIGN KEY (VenID) REFERENCES VENUE(VenueID)
40 );
```

DEFINITION

```
41 • CREATE TABLE SUPPLIER_Number (
42     Company_Name VARCHAR(20) NOT NULL,
43     Contact_Number VARCHAR(15),
44     constraint Company_Name_PK PRIMARY KEY(Company_Name)
45 );
46
47 • CREATE TABLE SUPPLIER (
48     SupplierID INT(2) NOT NULL,
49     Company_Name VARCHAR(20) ,
50     constraint SUPPLIER_PK PRIMARY KEY(SupplierID),
51     constraint SUPPLIER_FK FOREIGN KEY ( Company_Name) REFERENCES SUPPLIER_Number( Company_Name)
52 );
53
54
55 • CREATE TABLE SERVICE (
56     ServiceID INT(2) NOT NULL,
57     Service_Type VARCHAR(20),
58     constraint SERVICE_PK PRIMARY KEY(ServiceID)
59 );
```

DEFINITION

```
61 • Ⓜ CREATE TABLE CLIENT (
62     ClientID INT(2) NOT NULL,
63     FName VARCHAR(20) ,
64     LName VARCHAR(20) ,
65     Email VARCHAR(255) UNIQUE,
66     constraint CLIENT_PK PRIMARY KEY(ClientID)
67 );
68
69
70 • Ⓜ CREATE TABLE WORKS_IN (
71     EventID INT(2) NOT NULL,
72     EmpID INT (2) NOT NULL,
73     constraint WORKS_IN_PK PRIMARY KEY (EventID, EmpID),
74     constraint WORKS_IN_FK1 FOREIGN KEY (EventID) REFERENCES EVENT(EventID),
75     constraint WORKS_IN_FK2 FOREIGN KEY (EmpID) REFERENCES EMPLOYEE(EmployeeID)
76 );
```

DEFINITION

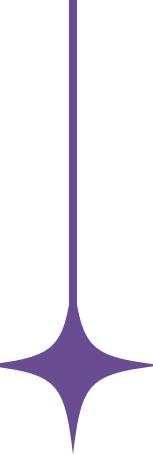
```
78 • CREATE TABLE PROVIDES (
79     ServiceID INT(2) NOT NULL,
80     SupplierID INT(2) NOT NULL,
81     constraint PROVIDES_PK PRIMARY KEY (ServiceID, SupplierID),
82     constraint PROVIDES_FK1 FOREIGN KEY (ServiceID) REFERENCES SERVICE(ServiceID),
83     constraint PROVIDES_FK2 FOREIGN KEY (SupplierID) REFERENCES SUPPLIER(SupplierID)
84 );
85 • CREATE TABLE VENDORS (
86     EventID INT(2) NOT NULL,
87     SupplierID INT(2) NOT NULL,
88     constraint VENDORS_PK PRIMARY KEY (EventID, SupplierID),
89     constraint VENDORS_FK1 FOREIGN KEY (EventID) REFERENCES EVENT(EventID),
90     constraint VENDORS_FK2 FOREIGN KEY (SupplierID) REFERENCES SUPPLIER(SupplierID)
91 );
```

DEFINITION

```
93 • CREATE TABLE RESERVES (
94     EventID INT(2) NOT NULL,
95     VenID INT(2) NOT NULL,
96     ServiceID INT(2) NOT NULL,
97     ClientID INT(2) NOT NULL,
98     Cost DECIMAL(10, 2),
99     constraint RESERVES_PK PRIMARY KEY (EventID, VenID, ServiceID, ClientID),
100    constraint RESERVES_FK1 FOREIGN KEY (EventID) REFERENCES EVENT(EventID),
101    constraint RESERVES_FK2 FOREIGN KEY (VenID) REFERENCES VENUE(VenueID),
102    constraint RESERVES_FK3 FOREIGN KEY (ServiceID) REFERENCES SERVICE(ServiceID),
103    constraint RESERVES_FK4 FOREIGN KEY (ClientID) REFERENCES CLIENT(ClientID)
104 );
```

DEFINITION

```
105 • CREATE TABLE Client_Number (
106     ClientNum VARCHAR(20) NOT NULL,
107     ClientID INT(2) NOT NULL,
108     constraint Client_Number_PK PRIMARY KEY (ClientNum, ClientID),
109     constraint Client_Number_FK FOREIGN KEY (ClientID) REFERENCES CLIENT(ClientID)
110 );
111 • CREATE TABLE Employee_Number (
112     EmpNum VARCHAR(20)NOT NULL,
113     EmpID INT (2) NOT NULL,
114     constraint Employee_Number_PK PRIMARY KEY (EmpNum,EmpID ),
115     constraint Employee_Number_FK FOREIGN KEY (EmpID) REFERENCES EMPLOYEE(EmployeeID)
116 );
```



MANIPULATION

MANIPULATION

```
126 • INSERT INTO VENUE_Location (Location, Venue_Name) VALUES  
127     ('Makkah', 'La rose hall'),  
128     ('Makkah', 'Al arous hall'),  
129     ('Al-taif', 'Hilton'),  
130     ('Jedaah', 'Four points'),  
131     ('Jedaah', 'Movenpick');  
132
```

Result Grid | Filter Rows:

	Location	Venue_Name
▶	Makkah	Al arous hall
	Jedaah	Four points
	Al-taif	Hilton
	Makkah	La rose hall
	Jedaah	Movenpick
	NULL	NULL

MANIPULATION

```
133 • INSERT INTO VENUE (VenueID, Capacity, Location, Venue_Name, Contact_Number) VALUES  
134     (01, '500', 'Makkah', 'La rose hall', '1234567890'),  
135     (02, '300', 'Makkah', 'Al arous hall', '0987654321'),  
136     (03, '400', 'Al-taif', 'Hilton', '1122334455'),  
137     (04, '600', 'Jedaah', 'Four points', '5566778899'),  
138     (05, '250', 'Jedaah', 'Movenpick', '6677889900');
```

	VenueID	Capacity	Location	Venue_Name	Contact_Number
▶	1	500	Makkah	La rose hall	1234567890
	2	300	Makkah	Al arous hall	0987654321
	3	400	Al-taif	Hilton	1122334455
	4	600	Jedaah	Four points	5566778899
	5	250	Jedaah	Movenpick	6677889900
	NULL	NULL	NULL	NULL	NULL

MANIPULATION

```
140 • INSERT INTO EVENT (EventID, Event_Type, Date, EmpID, VenID) VALUES  
141     (01, 'Wedding', '2023-05-20', 01, 01),  
142     (02, 'Conference', '2023-06-15', 02, 02),  
143     (03, 'Birthday', '2023-07-30', 03, 03),  
144     (04, 'Anniversary', '2023-08-25', 04, 04),  
145     (05, 'Meeting', '2023-09-10', 05, 05);
```

	EventID	Event_Type	Date	EmpID	VenID
▶	1	Wedding	2023-05-20	1	1
	2	Conference	2023-06-15	2	2
	3	Birthday	2023-07-30	3	3
	4	Anniversary	2023-08-25	4	4
	5	Meeting	2023-09-10	5	5

MANIPULATION

```
155 • INSERT INTO SUPPLIER (SupplierID, Company_Name) VALUES  
156     (01, 'Gourmet Galore'),  
157     (02, 'Pixel Memories'),  
158     (03, 'Harmony Tunes'),  
159     (04, 'Elegant Designs'),  
160     (05, 'SecureGate');  
161
```

	SupplierID	Company_Name
▶	4	Elegant Designs
	1	Gourmet Galore
	3	Harmony Tunes
	2	Pixel Memories
	5	SecureGate
	HULL	HULL

MANIPULATION

```
163 • INSERT INTO SERVICE (ServiceID, Service_Type) VALUES  
164     (01, 'Catering'),  
165     (02, 'Photography'),  
166     (03, 'Music'),  
167     (04, 'Decoration'),  
168     (05, 'Security');
```

	ServiceID	Service_Type
▶	1	Catering
	2	Photography
	3	Music
	4	Decoration
	5	Security
	NULL	NULL

MANIPULATION

```
170 • INSERT INTO CLIENT (ClientID, FName, LName, Email) VALUES  
171     (01, 'Ali', 'Salm', 'AS@gmail.com'),  
172     (02, 'Bodur', 'badr', 'BB@gmail.com'),  
173     (03, 'Ameera', 'Ali', 'AA@gmail.com'),  
174     (04, 'Afnan', 'Bassam', 'AB@gmail.com'),  
175     (05, 'Hassan', 'Ameer', 'eve@gmail.com');
```

	ClientID	FName	LName	Email
▶	1	Ali	Salm	AS@gmail.com
	2	Bodur	badr	BB@gmail.com
	3	Ameera	Ali	AA@gmail.com
	4	Afnan	Bassam	AB@gmail.com
	5	Hassan	Ameer	eve@gmail.com
●	NULL	NULL	NULL	NULL

MANIPULATION

```
177 • INSERT INTO Client_Number (ClientNum, ClientID) VALUES  
178     ('0568389494', 1),  
179     ('0568389493', 2),  
180     ('0568389492', 3),  
181     ('0568389491', 4),  
182     ('0568389490', 5);
```

	ClientNum	ClientID
▶	0568389494	1
	0568389493	2
	0568389492	3
	0568389491	4
	0568389490	5

MANIPULATION

```
185 • INSERT INTO Employee_Number (EmpNum, EmpID) VALUES  
186     ('0543006180', 1),  
187     ('0563006190', 2),  
188     ('0533506200', 3),  
189     ('0563006400', 4),  
190     ('0543709770', 5);
```

	EmpNum	EmpID
▶	0543006180	1
	0563006190	2
	0533506200	3
	0563006400	4
	0543709770	5
	HULL	HULL

MANIPULATION

```
192 •     INSERT INTO WORKS_IN (EventID, EmpID) VALUES
```

```
193     (01, 01),
```

```
194     (02, 02),
```

```
195     (03, 03),
```

```
196     (04, 04),
```

```
197     (05, 05);
```

```
198
```

```
199 •     INSERT INTO PROVIDES (ServiceID, SupplierID) VALUES
```

```
200     (01, 01),
```

```
201     (02, 02),
```

```
202     (03, 03),
```

```
203     (04, 04),
```

```
204     (05 , 05);
```

Result Grid		
	EventID	EmpID
▶	1	1
	2	2
	3	3
	4	4
	5	5

Result Grid		
	ServiceID	SupplierID
▶	1	1
	2	2
	3	3
	4	4
	5	5

MANIPULATION

```
206 • INSERT INTO VENDORS (EventID, SupplierID) VALUES  
207      (01, 01),  
208      (02, 02),  
209      (03, 03),  
210      (04, 04),  
211      (05, 05);
```

	EventID	SupplierID
▶	1	1
	2	2
	3	3
	4	4
	5	5
✖	NULL	NULL

MANIPULATION

```
212 • INSERT INTO RESERVES (EventID, VenID, ServiceID, ClientID, Cost) VALUES  
213     (01, 01, 01, 01, 1000.00),  
214     (02, 02, 02, 02, 2000.00),  
215     (03, 03, 03, 03, 1500.50),  
216     (04, 04, 04, 04, 2500.75),  
217     (05, 05, 05, 05, 3000.00);
```

	EventID	VenID	ServiceID	ClientID	Cost
▶	1	1	1	1	1000.00
	2	2	2	2	2000.00
	3	3	3	3	1500.50
	4	4	4	4	2500.75
	5	5	5	5	3000.00
	NULL	NULL	NULL	NULL	NULL

MANIPULATION

```
118 • INSERT INTO EMPLOYEE (EmployeeID, FName, LName, Position, Email) VALUES  
119     (01, 'Lamyaa', 'Hilal', 'Manager', 'LH@gmail.com'),  
120     (02, 'Weaam', 'Rashed', 'Coordinator', 'WR@gmail.com'),  
121     (03, 'Renad', 'Ali', 'Director', 'RA@gmail.com'),  
122     (04, 'Manar', 'Saleh', 'HR', 'Ms@gmail.com') ,  
123     (05, 'Jana', 'Mohmed', 'Designer', 'JM@gmail.com'),  
124     (06, 'Lama', 'Abdullah', 'Planner', 'LA@gmail.com');
```

	EmployeeID	FName	LName	Position	Email
▶	1	Lamyaa	Hilal	Manager	LH@gmail.com
	2	Weaam	Rashed	Coordinator	WR@gmail.com
	3	Renad	Ali	Director	RA@gmail.com
	4	Manar	Saleh	HR	Ms@gmail.com
	5	Jana	Mohmed	Designer	JM@gmail.com
	6	Lama	Abdullah	Planner	LA@gmail.com
*	NULL	NULL	NULL	NULL	NULL

After DELETE:

```
223 • DELETE FROM EMPLOYEE WHERE EmployeeID = 06;
```

	EmployeeID	FName	LName	Position	Email
▶	1	Lamyaa	Hilal	Manager	LH@gmail.com
	2	Weaam	Rashed	Coordinator	WR@gmail.com
	3	Renad	Ali	Director	RA@gmail.com
	4	Manar	Saleh	HR	Ms@gmail.com
	5	Jana	Mohmed	Designer	JM@gmail.com
*	NULL	NULL	NULL	NULL	NULL

MANIPULATION

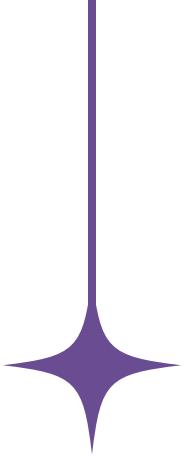
```
41 • CREATE TABLE SUPPLIER_Number (
42     Company_Name VARCHAR(20) NOT NULL,
43     Contact_Number VARCHAR(15),
44     constraint Company_Name_PK PRIMARY KEY(Company_Name)
45 );
```

	Company_Name	Contact_Number
▶	Elegant Designs	2312312310
	Gourmet Galore	1231231230
	Harmony Tunes	2132132130
	Pixel Memories	3213213210
	SecureGate	3123123120
*	NULL	NULL

After UPDATE:

```
219 • UPDATE SUPPLIER_Number
220     SET Contact_Number = '43125512310'
221     WHERE Company_Name = 'Elegant Designs';
```

	Company_Name	Contact_Number
▶	Elegant Designs	43125512310
	Gourmet Galore	1231231230
	Harmony Tunes	2132132130
	Pixel Memories	3213213210
	SecureGate	3123123120
*	NULL	NULL



SQL QUERIES USING SELECT COMMAND

SQL QUERIES

```
225 • SELECT E.EventID, E.Event_Type, E.Date, V.Venue_Name, V.Capacity, V.Location  
226   FROM EVENT E  
227   JOIN VENUE V ON E.VenID = V.VenueID  
228   ORDER BY E.Date;
```

	EventID	Event_Type	Date	Venue_Name	Capacity	Location
▶	1	Wedding	2023-05-20	La rose hall	500	Makkah
	2	Conference	2023-06-15	Al arous hall	300	Makkah
	3	Birthday	2023-07-30	Hilton	400	Al-taif
	4	Anniversary	2023-08-25	Four points	600	Jedaah
	5	Meeting	2023-09-10	Movenpick	250	Jedaah

List Events with Venue Details, Ordered by Date

SQL QUERIES

```
230 • SELECT E.EventID, E.Event_Type, SUM(R.Cost) AS TotalCost  
231   FROM EVENT E  
232   JOIN RESERVES R ON E.EventID = R.EventID  
233   GROUP BY E.EventID  
234   HAVING TotalCost > (SELECT AVG(TotalCost) FROM (SELECT SUM(Cost) AS TotalCost FROM RESERVES GROUP BY EventID) AS AvgCost)
```

Result Grid			
	EventID	Event_Type	TotalCost
▶	4	Anniversary	2500.75
	5	Meeting	3000.00

Events with total cost above average

SQL QUERIES

```
236 •   SELECT *  
237     FROM CLIENT  
238     ORDER BY FName, LName DESC ;
```

	ClientID	FName	LName	Email
▶	4	Afnan	Bassam	AB@gmail.com
	1	Ali	Salm	AS@gmail.com
	3	Ameera	Ali	AA@gmail.com
	2	Bodur	badr	BB@gmail.com
	5	Hassan	Ameer	eve@gmail.com
●	NULL	NULL	NULL	NULL

Order clients alphabetically with their information

SQL QUERIES

```
240 •   SELECT  
241       e.Event_Type  
242     FROM  
243       EVENT e  
244   WHERE NOT EXISTS (  
245       SELECT 1  
246     FROM RESERVES r  
247   WHERE r.EventID = e.EventID AND r.ServiceID = (  
248       SELECT ServiceID  
249     FROM SERVICE  
250   WHERE Service_Type = 'Security'  
251   )  
252 );  
253
```

Result Grid	
	Event_Type
▶	Wedding
	Conference
	Birthday
	Anniversary

Events without security services

SQL QUERIES

253

```
254 • SELECT V.Location, MAX(V.Capacity) AS Max_Capacity  
255   FROM VENUE V  
256   GROUP BY V.Location  
257   ORDER BY Max_Capacity desc ;
```

258

	Location	Max_Capacity
▶	Jedaaḥ	600
	Makkah	500
	Al-taif	400

Maximum Venue Capacity by Location

SQL QUERIES

```
260 •   SELECT * FROM VENUE_Location  
261   WHERE Location = 'Makkah' AND Venue_Name IN (  
262       SELECT Venue_Name FROM VENUE  
263       WHERE Capacity < '400'  
264   );
```

	Location	Venue_Name
▶	Makkah	Al arous hall
●	NULL	NULL

Venues in Makkah with Capacity under 400

SQL QUERIES

```
266 • SELECT EVENT.Event_Type, EVENT.Date, EMPLOYEE.FName AS EmployeeFirstName, EMPLOYEE.LName AS EmployeeLastName, VENUE.Venue_Name, VENUE.Location  
267     FROM EVENT  
268     INNER JOIN EMPLOYEE ON EVENT.EmpID = EMPLOYEE.EmployeeID  
269     INNER JOIN VENUE ON EVENT.VenID = VENUE.VenueID;  
270
```

	Event_Type	Date	EmployeeFirstName	EmployeeLastName	Venue_Name	Location
▶	Wedding	2023-05-20	Lamyaa	Hilal	La rose hall	Makkah
	Conference	2023-06-15	Weaam	Rashed	Al arous hall	Makkah
	Birthday	2023-07-30	Renad	Ali	Hilton	Al-taif
	Anniversary	2023-08-25	Manar	Saleh	Four points	Jedaah
	Meeting	2023-09-10	Jana	Mohmed	Movenpick	Jedaah

Event details with Employee and Venue information

SQL QUERIES

```
271 •   SELECT * FROM CLIENT  
272   - WHERE ClientID IN (  
273       SELECT ClientID FROM RESERVES  
274   - WHERE EventID IN (  
275       SELECT EventID FROM EVENT  
276       WHERE Event_Type = 'Meeting'  
277   )  
278 );
```

	ClientID	FName	LName	Email
▶	5	Hassan	Ameer	eve@gmail.com
◀	NULL	NULL	NULL	NULL

Clients who have booked meetings

SQL QUERIES

```
278 •     SELECT FName, LName FROM EMPLOYEE  
279     WHERE EmployeeID IN (  
280         SELECT EmpID FROM Employee_Number  
281         WHERE EmpNum LIKE '054%'  
282     );  
283
```

Result Grid		
	FName	LName
▶	Lamyaa	Hilal
	Jana	Mohmed

Employees with a specific phone number pattern

SQL QUERIES

```
284 •   SELECT E.FName, E.LName, EN.EmpNum  
285     FROM EMPLOYEE E  
286   JOIN Employee_Number EN ON E.EmployeeID = EN.EmpID  
287   JOIN WORKS_IN W ON E.EmployeeID = W.EmpID  
288   JOIN EVENT EV ON W.EventID = EV.EventID  
289   WHERE EV.Event_Type = 'Wedding'  
290   GROUP BY E.FName, E.LName, EN.EmpNum;
```

Result Grid			
	FName	LName	EmpNum
	Lamyaa	Hilal	0543006180

Employees working on weddings with contact numbers