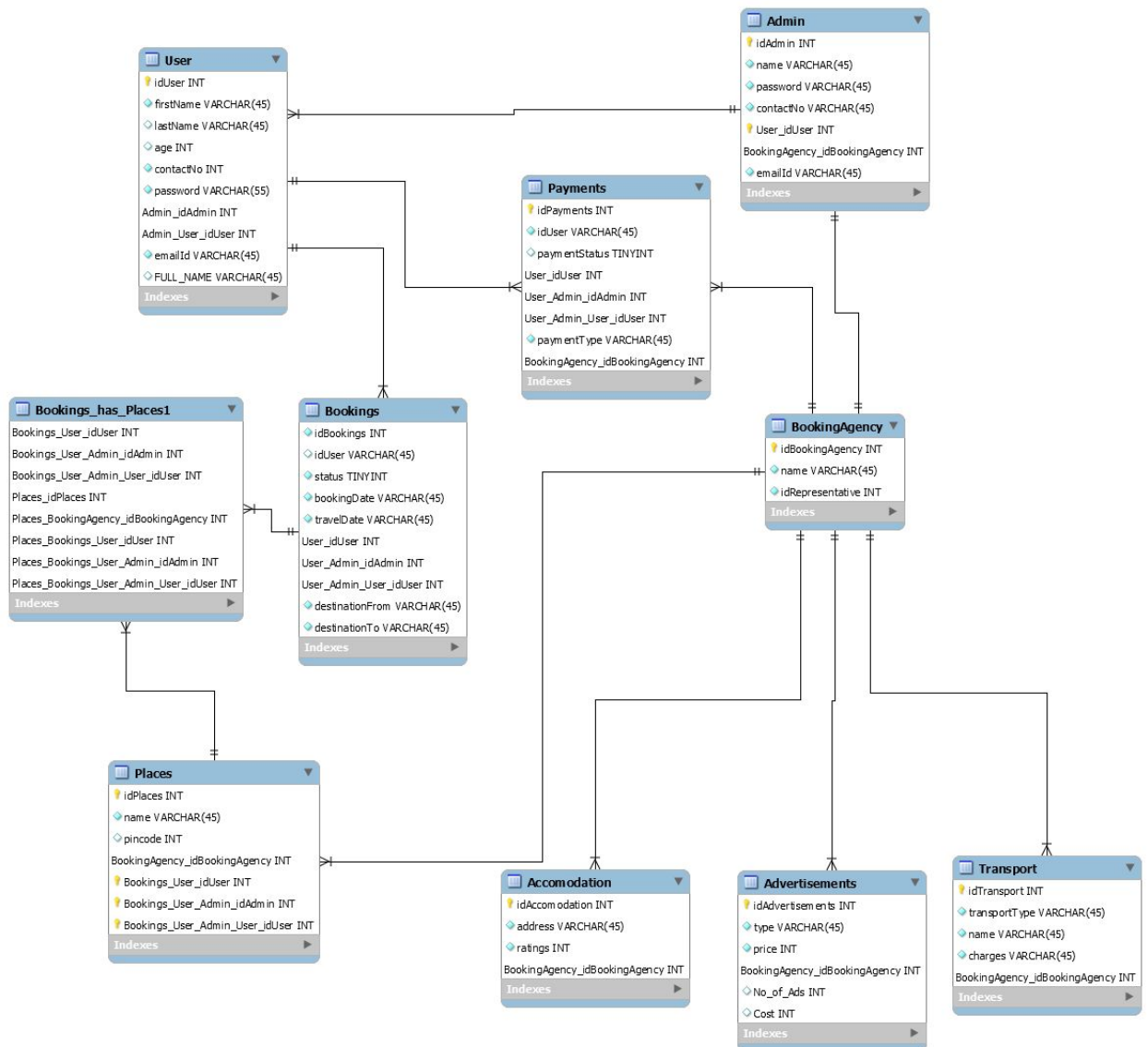


DBMS ASSIGNMENT 2

1. SHOWCASE A MANY-MANY RELATION.

A MANY-MANY RELATION IN BETWEEN PLACES AND BOOKINGS HAS BEEN IMPLEMENTED.



2.REPRESENT COMPOSITE KEY AND WEAK ENTITY IN YOUR DATABASE:

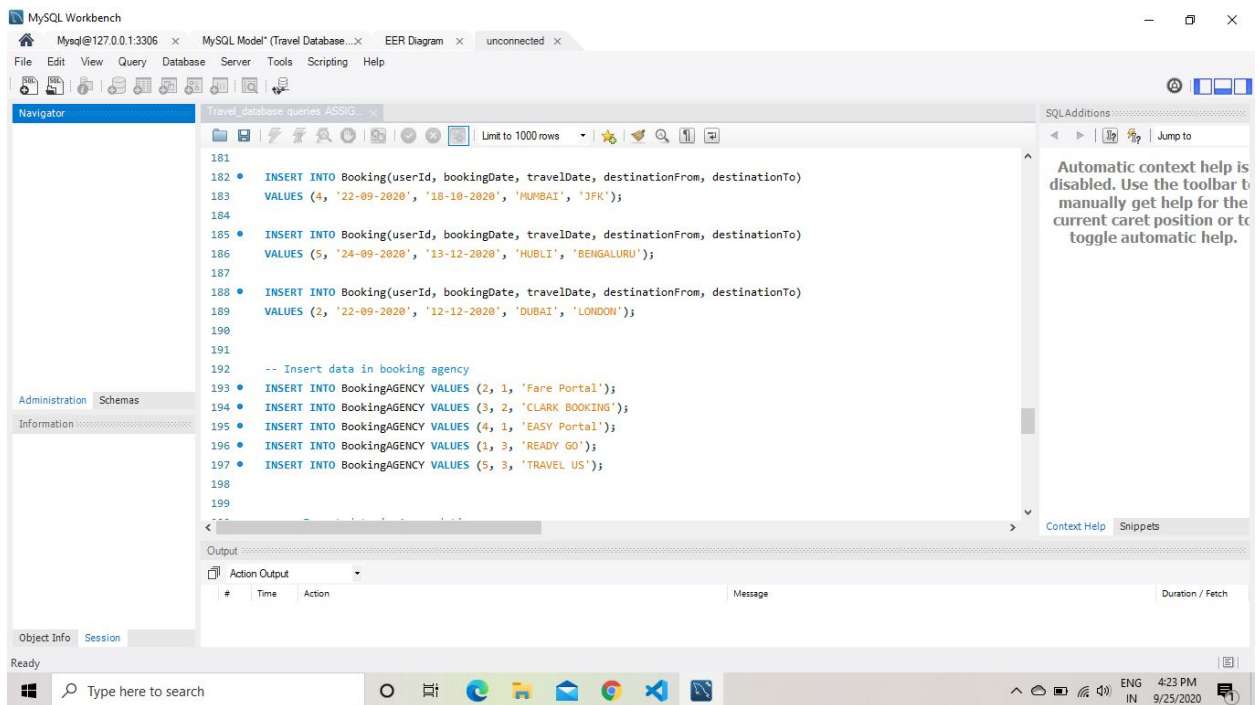
COMPOSITE KEY IS IN : BOOKING_HAS_PLACES1 -> PrimaryKey(BookingID, PlacesID)

WEAK ENTITY -> BOOKING_HAS_PLACES1

3.SHOW VIOLATION OF PRIMARY KEY, UNIQUE NOT NULL,and DEFAULT KEY CONSTRAINTS THROUGH INSERTION:

VIOLATION OF PRIMARY KEY

a.DATA INSERTED :



b.WHEN TRYING TO DUPLICATE PRIMARY KEY(BOOKING ID): THROWS ERROR

The screenshot shows the MySQL Workbench interface. The Query window contains the following SQL code:

```
1 USE Travel;
2 INSERT INTO BookingAGENCY VALUES (5, 1, 'TRAVEL INDIA');
```

The Output window at the bottom displays the execution results:

#	Time	Action	Message	Duration / Fetch
1	16:24:18	USE Travel	0 row(s) affected	0.000 sec
2	16:24:18	INSERT INTO BookingAGENCY VALUES (5, 1, 'TRAVEL INDIA')	Error Code: 1062. Duplicate entry '5' for key 'bookingagency.PRIMARY'	0.016 sec

The status bar at the bottom indicates "Query interrupted".

VIOLATION OF NOT-NULL

HERE FIRST NAME CANNOT BE NULL IN ADMIN , BUT IF WE TRY TO NULL IT :

The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL code:

```
1 USE Travel;
2 INSERT INTO Admin(firstName, lastName, password, age, contactNo, emailId)
3 Values(null, 'Taylor', 'asdjkl', 29, 68429687, 'carlson@gmail.com');
```

The output pane at the bottom shows the execution results:

#	Time	Action	Message	Duration / Fetch
3	16:29:55	USE Travel	0 row(s) affected	0.000 sec
4	16:29:55	INSERT INTO Admin(firstName, lastName, password, age, contactNo, emailId) Values(null, T...	Error Code: 1048. Column 'firstName' cannot be null	0.000 sec

The error message indicates that the column 'firstName' cannot be null, which is a violation of the NOT-NULL constraint.

4.ONE DERIVED ATTRIBUTE SHOULD BE ADDED TO THE DATABASE DESIGN:

FULL_NAME FOR Admin:

The screenshot shows the MySQL Workbench interface. The Query Editor contains the following SQL script:

```
1 USE Travel;
2 ALTER TABLE Admin ADD FULL_NAME VARCHAR(60) AS (CONCAT(firstName, ' ', lastName));
3
4 SELECT * FROM Admin;
```

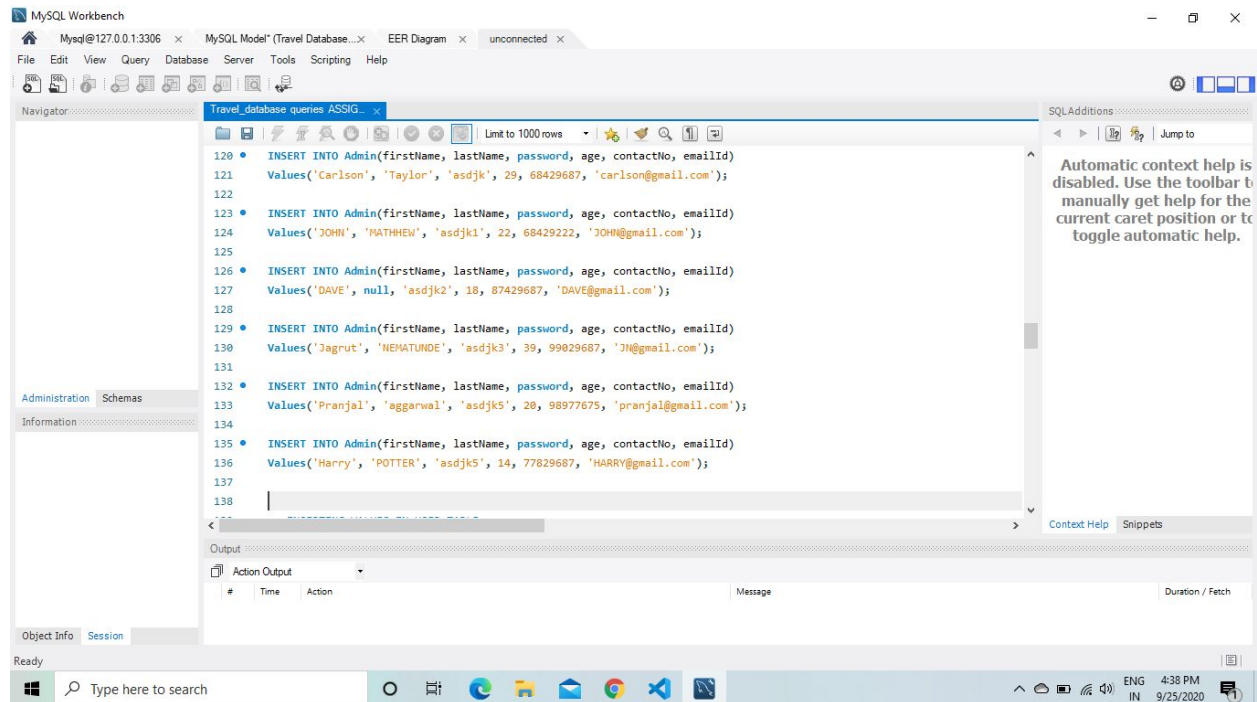
The Result Grid displays the data for the Admin table, including the newly added FULL_NAME column.

adminId	firstName	lastName	password	age	contactNo	emailId	bookingAgencyId	FULL_NAME
1	Carlson	Taylor	asdj1	29	68429687	carlson@gmail.com	0000	Carlson Taylor
2	JOHN	MATTHEW	asdj1	22	68429222	JOHN@gmail.com	0000	JOHN MATTHEW
3	DAVE		asdj2	18	87429687	DAVE@gmail.com	0000	
4	Jagrut	NEMATUNDE	asdj3	39	99029687	JN@gmail.com	0000	Jagrut NEMATUNDE
5	Pranjal	aggarwal	asdj5	20	98977675	pranjal@gmail.com	0000	Pranjal aggarwal
6	Harry	POTTER	asdj5	14	77829687	HARRY@gmail.com	0000	Harry POTTER

The Output pane shows the execution results of the queries:

```
8 16:34:35 ALTER TABLE Admin ADD FULL_NAME VARCHAR(60) AS (CONCAT(firstName, ' ', lastName); 0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0 0.047 sec
9 16:34:35 SELECT * FROM Admin LIMIT 0, 1000 6 row(s) returned 0.000 sec / 0.000 sec
```

5.INSERT TUPLES INTO THE TABLE AND SEE HOW FORIEGN KEY CONSTRAINTS WORK IF YOU TRY TO INSERT INTO THE DEPENDENT TABLE FIRST:



RESULT:

MySQL Workbench

MySQL@127.0.0.1:3306 x MySQL Model* (Travel Database... x EER Diagram x unconnected x

File Edit View Query Database Server Tools Scripting Help

Navigator

MANAGEMENT

- Server Status
- Client Connections
- Users and Privileges
- Status and System Variables
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Reports

Administration Schemas

No object selected

Query 1 x

```
1 USE Travel;
2
3
4 SELECT * FROM Admin;
```

Result Grid

	adminId	firstName	lastName	password	age	contactNo	emailId	bookingAgencyId	FULL_NAME
1	Carlson	Taylor	asdjk	29	69429687	carlson@gmail.com	NULL	Carlson Taylor	
2	JOHN	MATHHEW	asdjk1	22	69429222	JOHN@gmail.com	NULL	JOHN MATHHEW	
3	DAVE		asdjk2	18	87429687	DAVE@gmail.com	NULL		
4	Jagrut	NEMATUNDE	asdjk3	39	99029687	JN@gmail.com	NULL	Jagrut NEMATUNDE	
5	Pranjal	aggarwal	asdjk5	20	98977675	pranjal@gmail.com	NULL	Pranjal aggarwal	
6	Harry	POTTER	asdjk5	14	77829687	HARRY@gmail.com	NULL	Harry POTTER	

Output

Action Output

#	Time	Action	Message	Duration / Fetch
10	16:40:40	USE Travel	0 row(s) affected	0.000 sec
11	16:40:40	SELECT * FROM Admin LIMIT 0, 1000	6 row(s) returned	0.000 sec / 0.000 sec

Query Completed

Type here to search

ENG 4:40 PM 9/25/2020

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

IF TRYING TO INSERT A FOREIGN KEY INTO A DEPENDENT TABLE FIRST THEN:

The screenshot shows the MySQL Workbench interface with a query window containing the following SQL statements:

```
18 bookingAgencyId INT AUTO_INCREMENT,  
19 adminId INT NOT NULL,  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31
```

The Output tab displays the execution results of these queries. The final query (line 31) fails with the following error:

#	Time	Action	Message	Duration / Fetch
13	10:43:23	use travel_db	0 row(s) affected	0.000 sec
14	10:43:23	create table admin(adminId INT NOT NULL AUTO_INCREMENT, firstName VARCHAR(5...	0 row(s) affected	0.062 sec
15	10:43:23	ALTER TABLE Admin ADD bookingAgencyId INT, ADD FOREIGN KEY(bookingAgencyId) ...	Error Code: 1824. Failed to open the referenced table 'bookingagency'	0.000 sec
16	10:44:40	drop database if exists travel_db	1 row(s) affected	0.047 sec
17	10:44:40	create database if not exists travel_db	1 row(s) affected	0.000 sec
18	10:44:40	use travel_db	0 row(s) affected	0.000 sec
19	10:44:40	create table admin(adminId INT NOT NULL AUTO_INCREMENT, firstName VARCHAR(5...	0 row(s) affected	0.047 sec
20	10:44:40	CREATE TABLE BookingAgency (bookingAgencyId INT AUTO_INCREMENT, adminId I...	0 row(s) affected	0.078 sec
21	10:44:40	ALTER TABLE Admin ADD bookingAgencyId INT, ADD FOREIGN KEY(bookingAgencyId) ...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.172 sec
22	10:44:40	CREATE TABLE User (userId INT NOT NULL AUTO_INCREMENT, adminId INT NOT N...	0 row(s) affected	0.062 sec
23	10:44:40	SELECT * FROM User LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
24	10:44:40	SELECT * FROM Admin	0 row(s) returned	0.000 sec / 0.000 sec
25	10:44:40	CREATE TABLE Payment (paymentId INT AUTO_INCREMENT, userId INT NOT NULL, ...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.063 sec
26	10:44:40	SELECT * FROM User LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
27	10:44:40	desc User	9 row(s) returned	0.000 sec / 0.000 sec
28	10:44:40	SELECT * FROM User, Admin LIMIT 0, 1000	0 row(s) returned	0.000 sec / 0.000 sec
29	10:44:41	SHOW TABLES	4 row(s) returned	0.000 sec / 0.000 sec
30	10:44:41	CREATE TABLE Payment (paymentId INT AUTO_INCREMENT, userId INT NOT NULL, ...	0 row(s) affected	0.062 sec
31	10:44:41	INSERT INTO Payment (userId, paymentType, paymentStatus) VALUES (5, 'COD', 'Comple...	Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails (travel_db',	0.000 sec

The error message at the bottom of the window reads: "Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails (travel_db'".