



AMERICAN INTERNATIONAL UNIVERSITY–BANGLADESH (AIUB)

DEPARTMENT OF INTRODUCTION TO DATABASE

Summer 2020-2021

Section: H, Group: [6]

Project Name

Air Accessing Management System (Case Study & ER Diagram)

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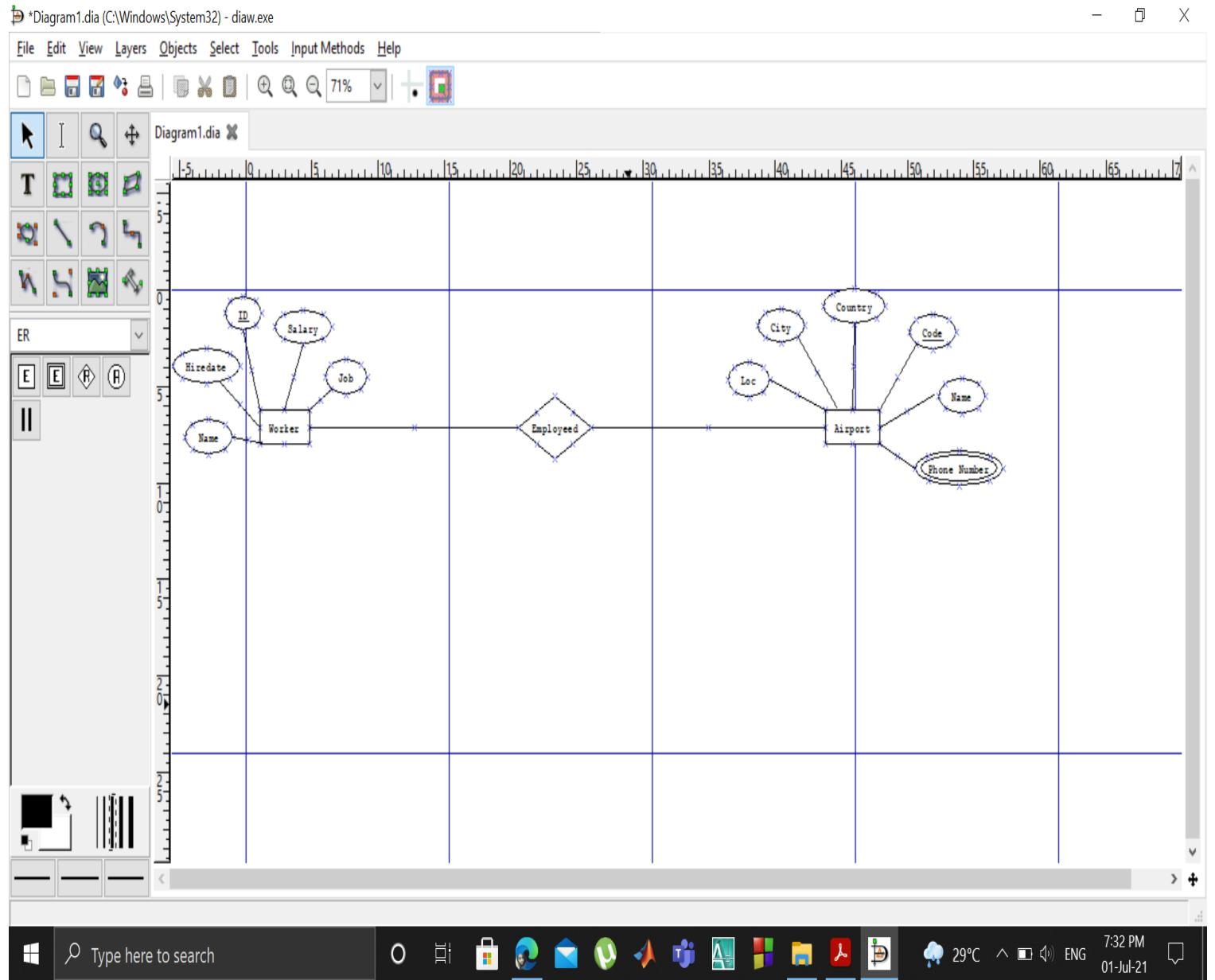
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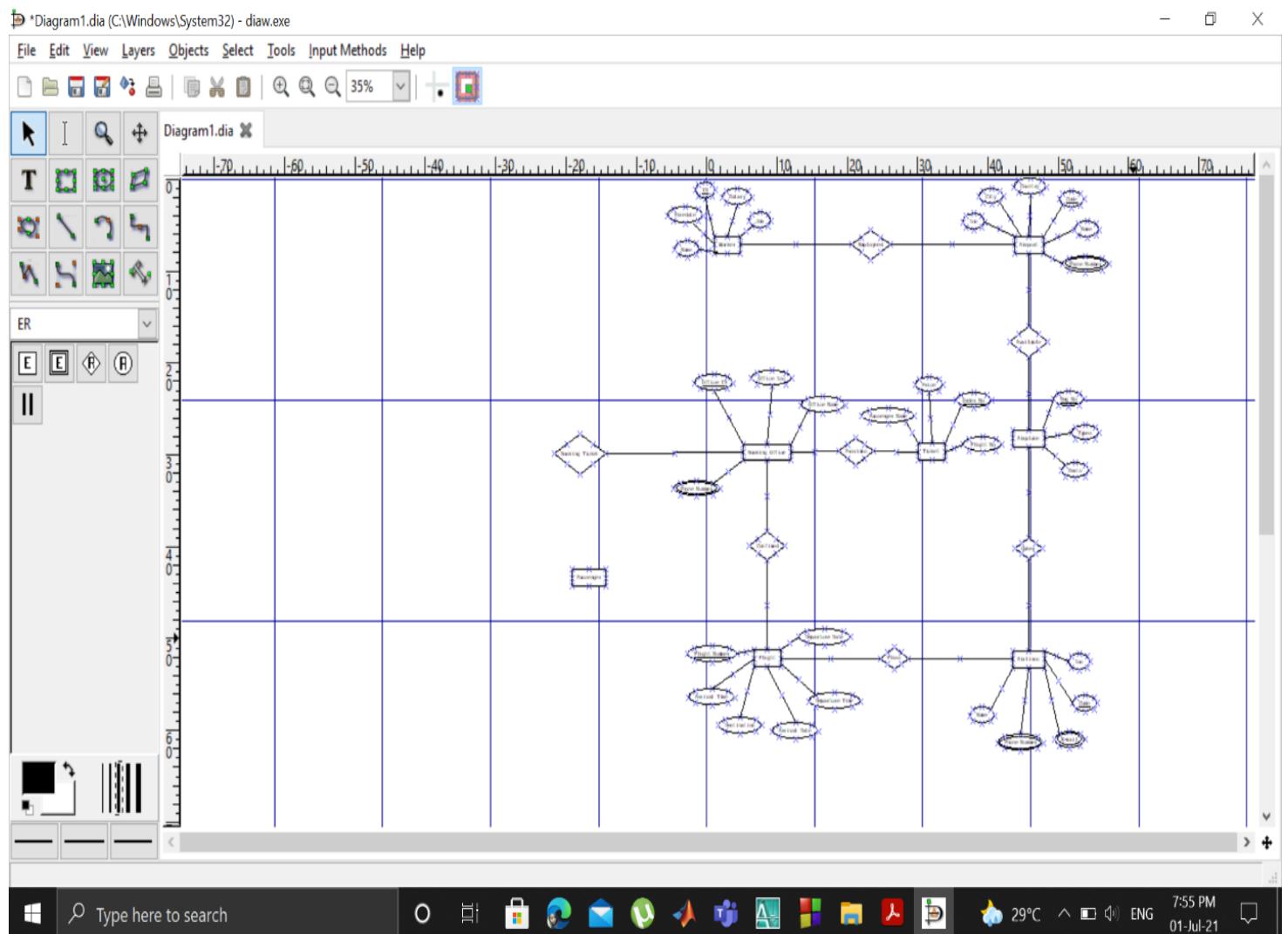
Kawser Irom Rushee

Case Study

In an air accessing management system there are several sectors where we can see main airport sector, employed workers, airplane owner, airlines, flight schedule and so many other sectors. Airport location, city, country, airport name, code number; these things are stored in the airport sector. Available planes and flights are recorded in airplane and flight sector. Airplane registration number, types and specific seats are recorded in this sector. There are several owners and airplanes in an airport. Airlines location, code number, owner's e-mail, phone number and name are also recorded in the files. All these works are done by specific workers in the specific sectors. Several employees are selected for each sectors. A worker's name, hiring date, ID, salary everything are noted. Flights get booked by booking officers. Departure date, flight number, arrival times, destination all get confirmed by the booking officer. One flight get booked by many passengers. The booking officers provides them the tickets, where passenger name, price, order number and flight number are mentioned. One ticket for one passenger. Passenger name, date of birth, phone number, order number, address and gender get recorded in the booking sector. One passenger can book many tickets.

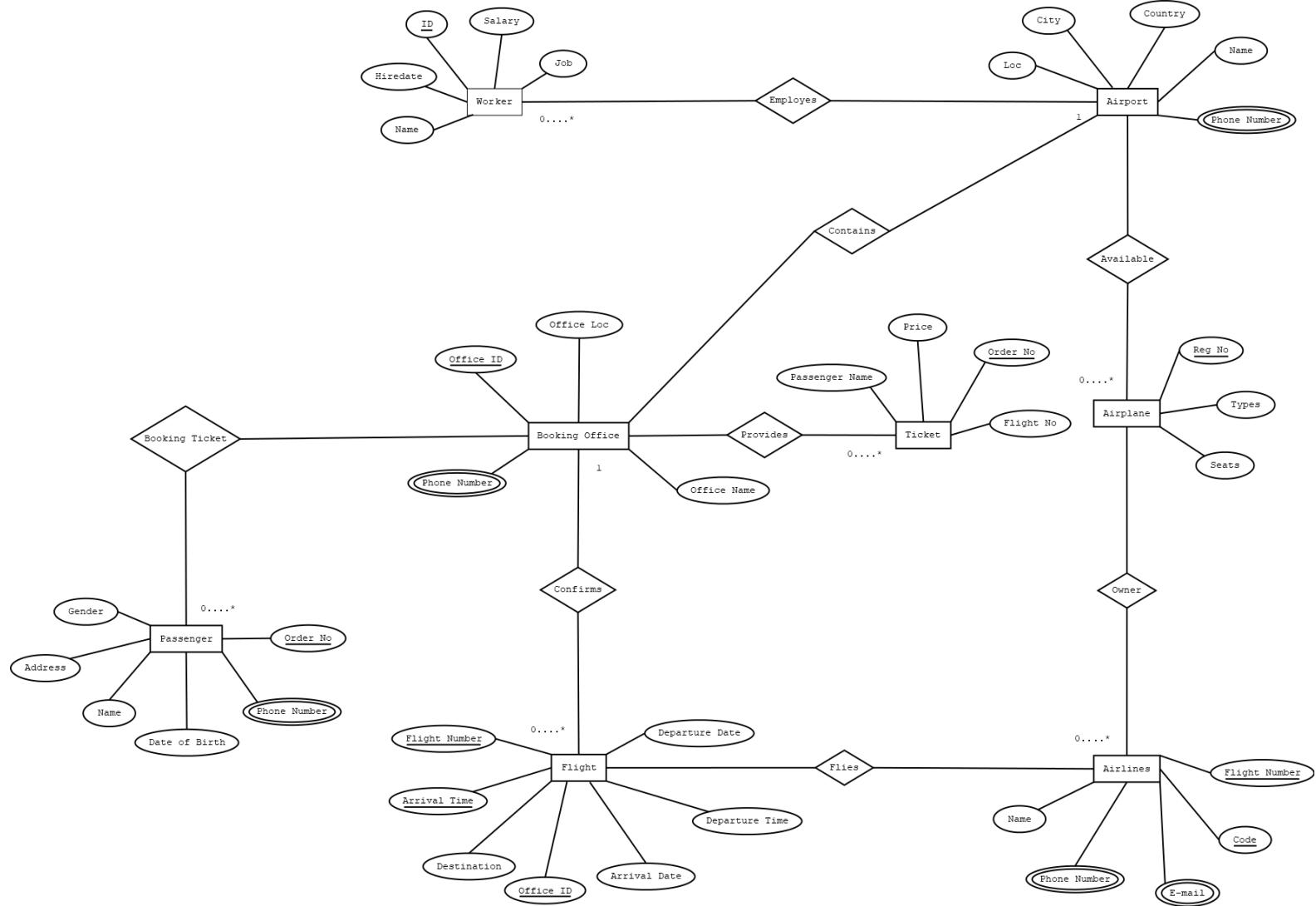


(Starting)

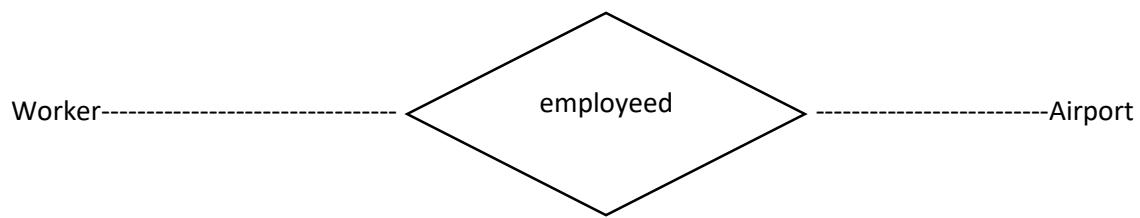


(Ending)

ER Diagram:



Normalization :



UNF :

(**ID**,Name,Job,Hiredate,Salary,Code,Name,Country,City,Loc,Phone)

1NF :

Phone Has Multi Value Attribute

2NF :

1. **ID**,Name,Job,Hiredate,Salary
2. Code,Name,Country,City,Loc,Phone

3NF :

1. **ID**,Name,Job,Hiredate,Salary
2. Code,Name,Country,City,Loc,Phone

Table :

Worker (**ID**,Name,Job,Hiredate,Salary,Code)

Airport (Code,Name,Country,City,Loc,Phone)



UNF : Code,Name,Country,City,Loc,Phone,Reg No

1NF :

Phone Has Multi Value Attribute

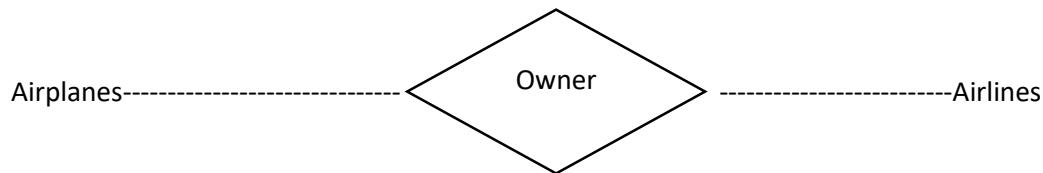
2NF :

1. Code,Name,Country,City,Loc,Phone
2. Reg No,Types,Seats

Table :

Airport (Code,Name,Country,City,Loc,Phone,Reg no)

Airplane (Reg No,Types,Seats)



UNF : owner (Code,Name,Types,Seats,Loc,Phone,Reg No,email,)

1NF :

Phone,Email Has Multi Value Attribute

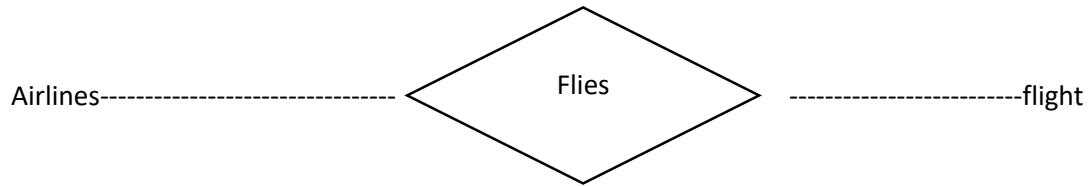
2NF :

1. Reg No,types,seats
2. Code,Name,Phone,Loc,Email

Table:

Airplane (Reg No,Types,Seats, code)

Airline (Code,Name,Phone,Loc,Email)



UNF : Flies (Code,Name,Loc,Phone,Email,FlightNo,Arrival

Time,Destination,Arrival Date,Departure Time,Departure Date)

1NF :

Phone,Email Has Multi Value Attribute

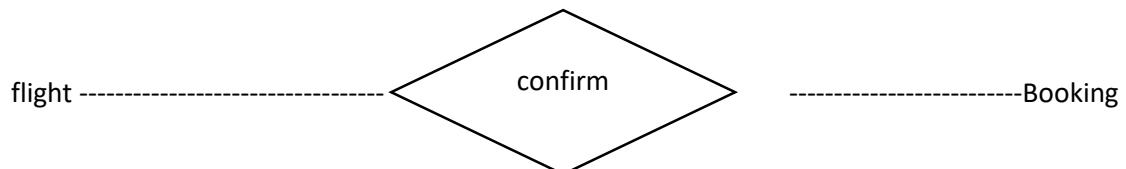
2NF :

1. Code,Name,Phone,Loc,Email
2. Flight No,Arrival Time,Destination,Arrival Date,Departure Time,Departure Date

Table:

Airline (Code,Name,Phone,Loc,Email, Flight No)

Flight (FlightNo,Arrival Time,Destination,Arrival Date,Departure Time,Departure Date)



UNF: (Flight no,Office ID,Office Name,Office Loc,Phone,Arrival

Time,Destination,Arrival Date,Departure Time,Departure Date)

1NF :

Phone Has Multi Value Attribute

2NF :

1. Flight No,Arrival Time, Destination, Arrival Date, Departure

Time, Departure Date

2. **Office ID**, Office Name, Office Loc, Phone)

3NF:

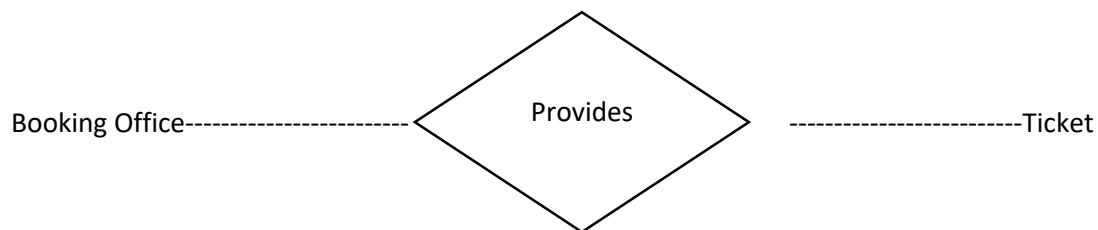
1. Flight No,Arrival Time, Destination, Arrival Date, Departure
Time, Departure Date

2. **Office ID**, Office Name, Office Loc, Phone)

Table:

Flight (FlightNo,Arrival Time, Destination, Arrival Date, Departure
Time, Departure Date, **Office ID**)

Booking Office (**Office ID**, Office Name, Office Loc, Phone)



UNF : Provides(Flight no, **Office ID**, Office Name, Office Loc, Phone, Order
No, Price)

1NF :

Phone Has Multi Value Attribute

2NF :

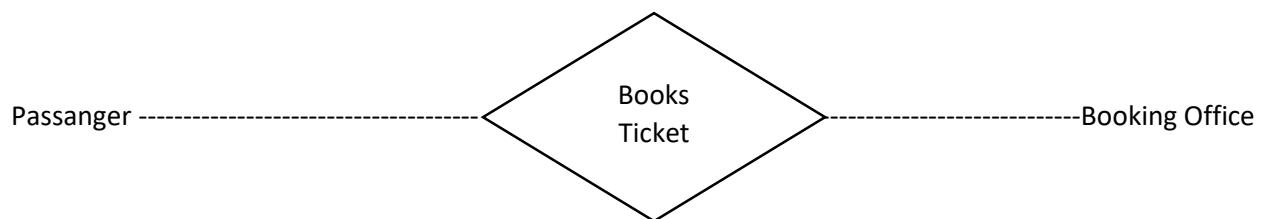
1. **Office ID**,Office Name,Office Loc,Phone
2. Ticket No,Price,Flight No

3NF:

1. **Office ID**,Office Name,Office Loc,Phone
2. Ticket No,Price,Flight No

Table:

Booking Office (**Office ID**,Office Name,Office Loc,Phone Ticket No)
Ticket (Ticket No,Price,Flight No)



UNF : Books Ticket (Order No,Name,Address,Gender,Phone,**Office ID**,Office Name,Office Loc,Ofiice Phone, Ticket No)

Name,Office Loc,Ofiice Phone, Ticket No)

1NF :

Phone Has Multi Value Attribute

2NF :

1. Order No,Name,Address,Gender,Phone
2. **Office ID**,Office Name,Office Loc,Ofiice Phone, Ticket No

3NF:

1. Order No,Name,Address,Gender,Phone
2. **Office ID**,Office Name,Office Loc,Ofiice Phone, Ticket No

Table:

Passanger (Order No,Name,Address, Gender,Phone, **Office ID**)

Booking Office (Office ID,Office Name,Office Loc,Ofiice Phone, Ticket No)

After Normalization:

1. **ID**,Name,Job,Hiredate,Salary

2.~~Code,Name,Country,City,Loc,Phone~~

1.Code,Name,Country,City,Loc,Phone

2.~~Reg No,Types,Seats~~

1.Reg No,types,seats

2.~~Code,Name,Phone,Loc,Email~~

1.Code,Name,Phone,Loc,Email

2.~~Flight No,Arrival Time,Destination,Arrival Date,Departure Time,Departure Date~~

1.Flight No,Arrival Time,Destination,Arrival Date,Departure Time,Departure Date

2.~~Office ID,Office Name,Office Loc,Phone~~)

1.**Office ID**,Office Name,Office Loc,Phone

2.Ticket No,Price,Flight No

1.Order No,Name,Address, Gender,Phone

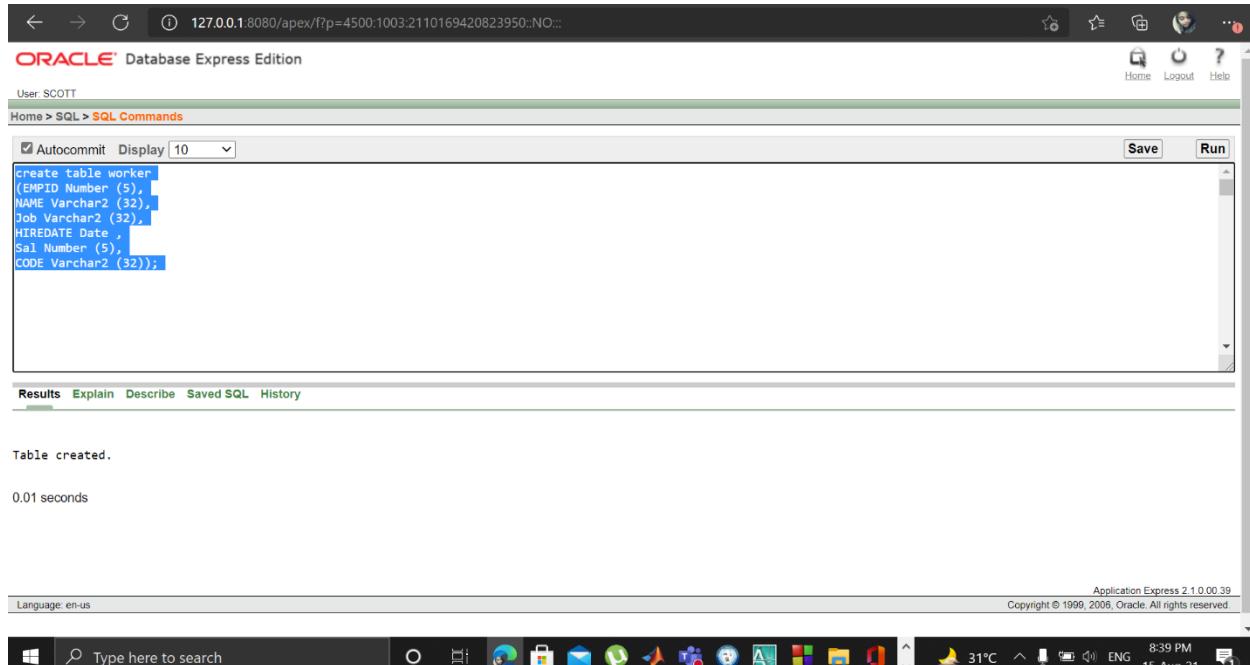
2. Office ID,Office Name,Office Loc,Ofiice Phone, Ticket No

Final Normalization:

- 1.** ID,Name,Job,Hiredate,Salary
- 2.** Code,Name,Country,City,Loc,Phone
- 3.** Reg No,types,seats
- 4.** Code,Name,Phone,Loc,Email
- 5.** Flight No,Arrival Time,Destination,Arrival Date,Departure Time,Departure Date
- 6.** Office ID,Office Name,Office Loc,Phone
- 7.** Ticket No,Price,Flight No
- 8.** Order No,Name,Address, Gender,Phone
- 9.** Office ID,Office Name,Office Loc,Ofiice Phone, Ticket No

Table Creation:

1.Worker:

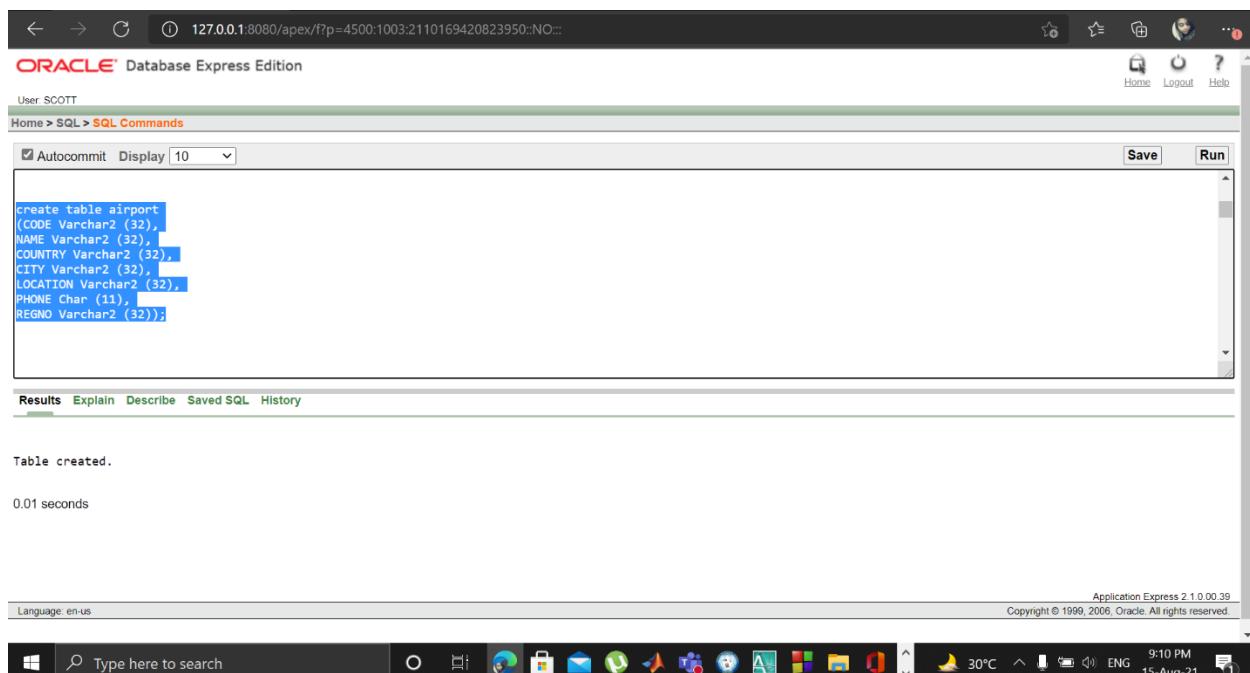


The screenshot shows the Oracle Database Express Edition interface. The URL in the address bar is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The page title is "ORACLE Database Express Edition". The user is logged in as SCOTT. The navigation bar shows "Home > SQL > SQL Commands". The SQL editor contains the following code:

```
create table worker
(EMPID Number (5),
NAME Varchar2 (32),
Job Varchar2 (32),
HIREDATE Date,
Sal Number (5),
CODE Varchar2 (32));
```

The "Run" button is highlighted. Below the editor, the results show "Table created." and "0.01 seconds". The status bar at the bottom right indicates "Language: en-us", "Application Express 2.1.0.0.39", and "Copyright © 1999, 2006, Oracle. All rights reserved.". The Windows taskbar at the bottom shows various application icons and the date/time: 31°C, 8:39 PM, 15-Aug-21.

2.Airport:



The screenshot shows the Oracle Database Express Edition interface. The URL in the address bar is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The page title is "ORACLE Database Express Edition". The user is logged in as SCOTT. The navigation bar shows "Home > SQL > SQL Commands". The SQL editor contains the following code:

```
create table airport
(CODE Varchar2 (32),
NAME Varchar2 (32),
COUNTRY Varchar2 (32),
CITY Varchar2 (32),
LOCATION Varchar2 (32),
PHONE Char (11),
REGNO Varchar2 (32));
```

The "Run" button is highlighted. Below the editor, the results show "Table created." and "0.01 seconds". The status bar at the bottom right indicates "Language: en-us", "Application Express 2.1.0.0.39", and "Copyright © 1999, 2006, Oracle. All rights reserved.". The Windows taskbar at the bottom shows various application icons and the date/time: 30°C, 9:10 PM, 15-Aug-21.

3.Airplane:

The screenshot shows the Oracle Database Express Edition interface. The URL is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The user is SCOTT. In the SQL Commands editor, the following SQL code is run:

```
create table airplane
(REGNO Varchar (32),
TYPES Varchar2 (32),
SEATS Number (10),
CODENO Varchar2 (32));
```

The results show:

Table created.
0.00 seconds

Language: en-us Application Express 2.1.0.0.39
Copyright © 1999, 2006, Oracle. All rights reserved.

The taskbar at the bottom shows various application icons and the system clock (4:55 PM, 15-Aug-21).

4.Airline:

The screenshot shows the Oracle Database Express Edition interface. The URL is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The user is SCOTT. In the SQL Commands editor, the following SQL code is run:

```
create table airline
(CODENO Varchar2 (32),
NAME Varchar2 (32),
PHONE Char (11),
EMAIL Varchar2 (32),
FLIGHTNO Varchar2 (32) primary key);
```

The results show:

Table created.
0.01 seconds

Language: en-us Application Express 2.1.0.0.39
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The taskbar at the bottom shows various application icons and the system clock (9:14 PM, 15-Aug-21).

5.Flight:

The screenshot shows the Oracle Database Express Edition interface. The URL is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The user is SCOTT. In the SQL Commands window, the following SQL code is executed:

```
create table flight
(FLIGHTNO Varchar2 (32) primary key,
ARRIVAL_TIME Varchar2 (32),
ARRIVAL_DATE Date,
DESTINATION Varchar2 (32),
DEPARTURE_TIME Varchar2 (32),
DEPARTURE_DATE Date,
OFFICEID Varchar2 (32));
```

The results show "Table created." and "0.00 seconds". The status bar at the bottom right indicates Application Express 2.1.0.0.39, Copyright © 1999, 2006, Oracle. All rights reserved.

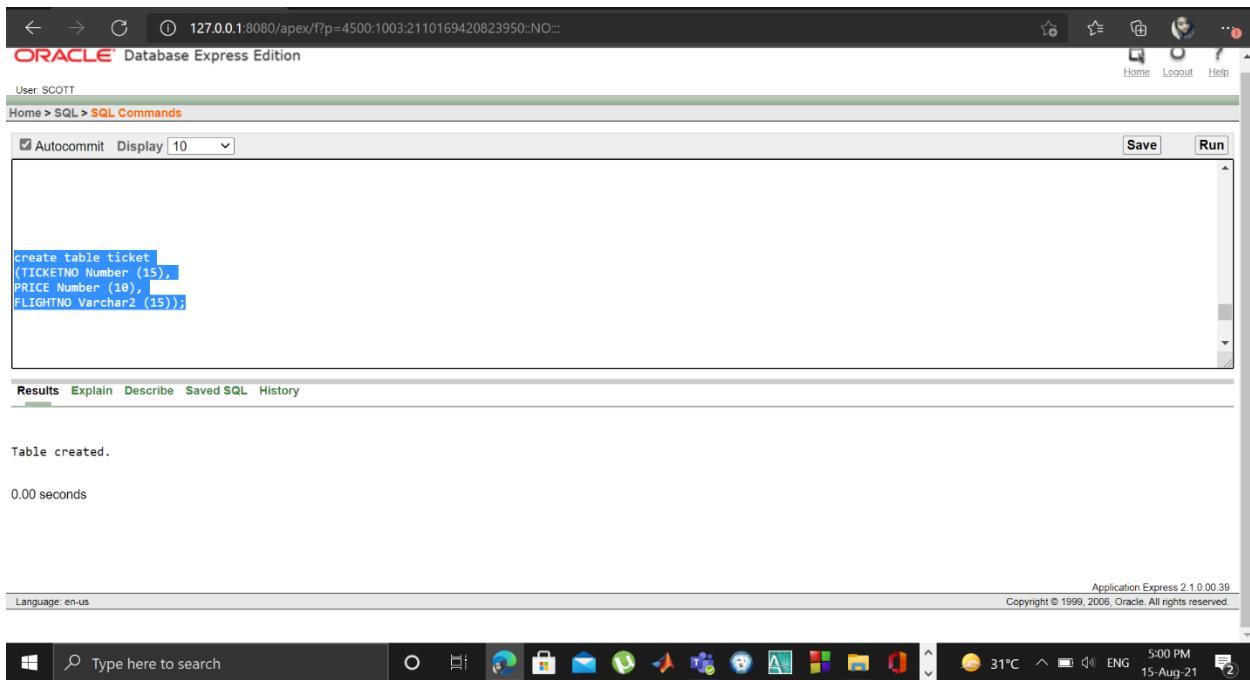
6.BookingOff:

The screenshot shows the Oracle Database Express Edition interface. The URL is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The user is SCOTT. In the SQL Commands window, the following SQL code is executed:

```
create table bookingoff
(OFFICEID Varchar2 (10),
NAME Varchar2 (10),
LOCATION Varchar2 (15),
PHONE Char (11),
TICKETNO Number (10));
```

The results show "Table created." and "0.00 seconds". The status bar at the bottom right indicates Application Express 2.1.0.0.39, Copyright © 1999, 2006, Oracle. All rights reserved.

7.Ticket:

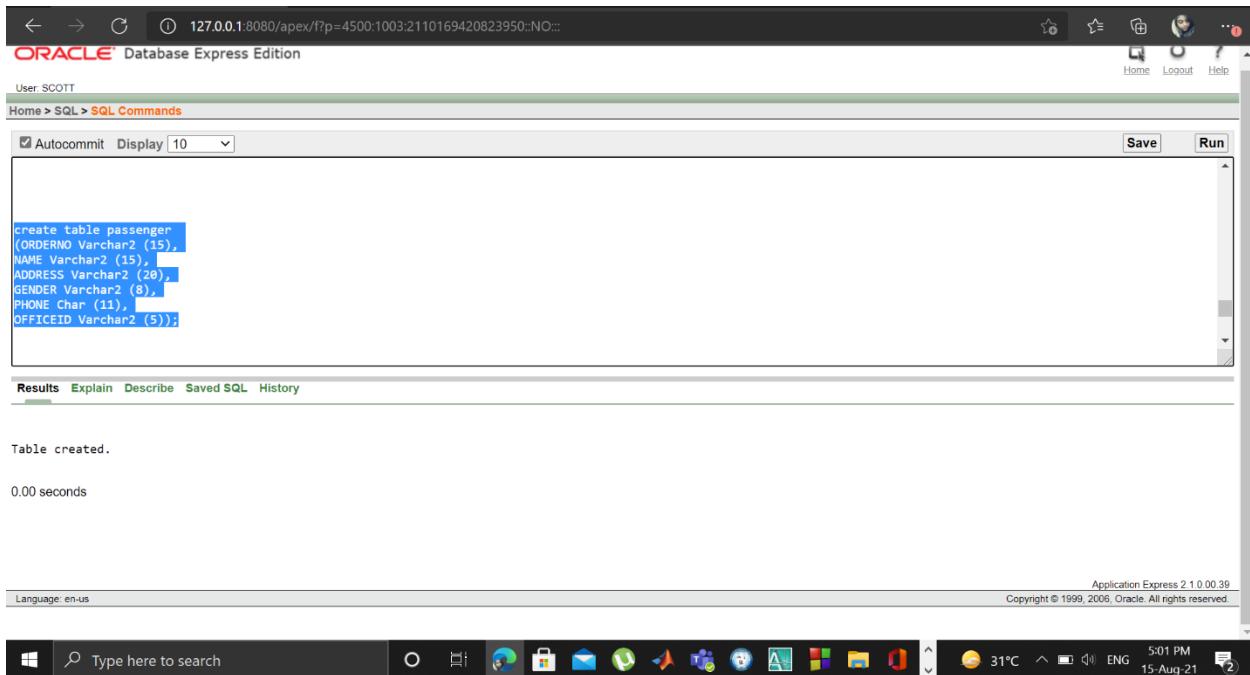


The screenshot shows the Oracle Database Express Edition interface. The URL in the address bar is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The title bar says "ORACLE Database Express Edition". The user is SCOTT. The navigation bar shows "Home > SQL > SQL Commands". The SQL editor contains the following code:

```
create table ticket
(TICKETNO Number (15),
PRICE Number (10),
FLIGHTNO Varchar2 (15));
```

The results pane shows the message "Table created." and "0.00 seconds". The status bar at the bottom right indicates "Application Express 2.1.0.00.39", "Copyright © 1999, 2006, Oracle. All rights reserved.", and a system tray with icons for weather (31°C), battery, and date/time (5:00 PM, 15-Aug-21).

8.Passenger:



The screenshot shows the Oracle Database Express Edition interface. The URL in the address bar is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The title bar says "ORACLE Database Express Edition". The user is SCOTT. The navigation bar shows "Home > SQL > SQL Commands". The SQL editor contains the following code:

```
create table passenger
(ORDENO Varchar2 (15),
NAME Varchar2 (15),
ADDRESS Varchar2 (20),
GENDER Varchar2 (8),
PHONE Char (11),
OFFICEID Varchar2 (5));
```

The results pane shows the message "Table created." and "0.00 seconds". The status bar at the bottom right indicates "Application Express 2.1.0.00.39", "Copyright © 1999, 2006, Oracle. All rights reserved.", and a system tray with icons for weather (31°C), battery, and date/time (5:01 PM, 15-Aug-21).

Data Insertion:

1.Worker:

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following SQL code:

```
values
(04,'Shinzon','Clerk','26-MARCH-2003',15000,'CXB');

insert into worker
(EMPID,NAME,Job,HIREDATE,SAL,CODE)
values
(05,'Rudro','Clerk','02-JANUARY-2015',15000,'JSR');

select * from worker;
```

The Results tab displays the inserted data:

EMPID	NAME	JOB	HIREDATE	SAL	CODE
1	Abir	Security	17-DEC-99	8000	DAC
2	Ridita	Officer	07-JUN-95	90000	DAC
3	Saimun	Manager	27-SEP-93	10000	CGP
4	Shinzon	Clerk	26-MAR-03	15000	CXB
5	Rudro	Clerk	02-JAN-15	15000	JSR

5 rows returned in 0.01 seconds [CSV Export](#)

Language: en-us Application Express 2.1.0.0.39 Copyright © 1999, 2006, Oracle. All rights reserved.

2.Airport:

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following SQL code:

```
insert into airport
(CODE,NAME,COUNTRY,CITY,LOCATION,PHONE,REGNO)
values
('CXB','Coxs Bazar Airport','Bangladesh','Coxs Bazar','Sadar Upazila',0341-45235,'CX');

select * from airport;
```

The Results tab displays the inserted data:

CODE	NAME	COUNTRY	CITY	LOCATION	PHONE	REGNO
DAC	Shahjalal Int. Airport	Bangladesh	Dhaka	Airport Road	-7911040	BL
JSR	Jassore Airport	Bangladesh	Jassore	Airport By Road	-7219003	AL
CGP	Sha Amanat Int. Airport	Bangladesh	Chittagong	Airport Road Ctg	-2913053	CL
Syl	Osmani Int. Airport	Bangladesh	Sylhet	Airport Road Syl	-39912449	SL
CXB	Coxs Bazar Airport	Bangladesh	Coxs Bazar	Sadar Upazila	-44694	CX

5 rows returned in 0.00 seconds [CSV Export](#)

Language: en-us Application Express 2.1.0.0.39 Copyright © 1999, 2006, Oracle. All rights reserved.

3.Airplane:

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following SQL code:

```
insert into airplane
(REGNO,TYPES,SEATS,CODENO)
values
('CX','THIRD',158,'UB98')

select * from airplane;
```

The results section displays the data inserted into the airplane table:

REGNO	TYPES	SEATS	CODENO
BL	BUSINESS	278	UA72
AL	BUSINESS	278	NA11
CL	FIRST	278	BB1
SL	SECOND	278	RA64
CX	THIRD	158	UB98

5 rows returned in 0.01 seconds [CSV Export](#)

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

4.Airline:

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following SQL code:

```
values
('RA64','Regent Airways',01987850439,'regentair@bd.com','RA775')

insert into airline
(CODENO,NAME,PHONE,EMAIL,FLIGHTNO)
values
('UB98','US-Bangla Airlines',027-786324,'airUS.Ban@bd.com','QM210')

select * from airline;
```

The results section displays the data inserted into the airline table:

CODENO	NAME	PHONE	EMAIL	FLIGHTNO
UA72	United Airways	-364234	unitedair@support.bd	ZR162
NA11	NovoAir	1728374346	Novo@bd.com	VQT23
BB1	Biman Bangladesh Airlines	1673494824	airlines@bd.cov	LT291
RA64	Regent Airways	1987850439	regentair@bd.com	RA775
UB98	US-Bangla Airlines	-786297	airUS.Ban@bd.com	QM210

5 rows returned in 0.00 seconds [CSV Export](#)

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

5.Flight:

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following code:

```
insert into flight
(FLIGHTNO,ARRIVAL_TIME,ARRIVAL_DATE,DESTINATION,DEPARTURE_TIME,DEPARTURE_DATE,OFFICEID)
values
('RA775',00.30,'25-APRIL-1918','RANGPUR',00.50,'25-APRIL-1918','L21')

select * from flight;
```

The Results window displays the following data:

FLIGHTNO	ARRIVAL_TIME	ARRIVAL_DATE	DESTINATION	DEPARTURE_TIME	DEPARTURE_DATE	OFFICEID
ZR162	22.3	26-APR-18	KOLKATA	23	26-APR-18	A11
VQ723	17.3	27-APR-18	KRAJSHAH	18.1	28-APR-18	A31
LT201	19.3	25-APR-18	RANGPUR	20.2	25-APR-18	Z73
RA775	3	25-APR-18	RANGPUR	5	25-APR-18	L21
UB88	1.3	01-MAY-18	MUMBAI	1.5	01-MAY-18	Q75

5 rows returned in 0.00 seconds [CSV Export](#)

Application Express 2.1 0 0 39
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6.BookingOff:

The screenshot shows the Oracle Database Express Edition interface. The SQL Commands window contains the following code:

```
insert into bookingoff
(OFFICEID,NAME,LOCATION,PHONE,TICKETNO)
values
('Q75','CLASSIC','SHITAKUNDA',01537897523,176384)

select * from bookingoff;
```

The Results window displays the following data:

OFFICEID	NAME	LOCATION	PHONE	TICKETNO
A11	PRANTOUR	AZIMPUR	1716490027	567392
A31	TOURCOM	MIRPUR	1678493726	536722
Z73	ROYALLINES	GULSHAN	1726559385	648274
L21	VIPTRAVELS	AGRABAD	1937462738	274916
Q75	CLASSIC	SHITAKUNDA	1537897523	176384

5 rows returned in 0.00 seconds [CSV Export](#)

Application Express 2.1 0 0 39
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7.Ticket:

User SCOTT

Home > SQL > SQL Commands

```
values
(875243,8000,'LT291')

insert into ticket
(TICKETNO,PRICE,FLIGHTNO)
values
(564171,25000,'QM210')

select * from ticket;
```

Results Explain Describe Saved SQL History

TICKETNO	PRICE	FLIGHTNO
158970	15000	ZR162
198753	10000	VG723
875243	8000	LT291
564171	25000	QM210

4 rows returned in 0.00 seconds [CSV Export](#)

Application Express 2.1.0.0.39
Language: en-us Copyright © 1999, 2006, Oracle. All rights reserved.

Type here to search 31°C 5:00 PM 15-Aug-21

8.Passenger:

User SCOTT

Home > SQL > SQL Commands

```
values
('B691','SADIA','BANANI','FEMALE',81752783648,'Z71')

insert into passenger
(ORDERNO,NAME,ADDRESS,GENDER,PHONE,OFFICEID)
values
('B991','FARIA','UTTARA','FEMALE',817486542342,'L21')

select * from passenger;
```

Results Explain Describe Saved SQL History

ORDERNO	NAME	ADDRESS	GENDER	PHONE	OFFICEID
V211	KHALID	BARDHARA	MALE	1746339820	A11
LN11	HASAN	BARDHARA	MALE	1874678293	A11
CN11	LABIB	BARDHARA	GULSHAN	1528736492	A31
B691	SADIA	BANANI	FEMALE	1752783648	Z71
B991	FARIA	UTTARA	FEMALE	17486542342	L21

5 rows returned in 0.01 seconds [CSV Export](#)

Application Express 2.1.0.0.39
Language: en-us Copyright © 1999, 2006, Oracle. All rights reserved.

Type here to search 31°C 5:01 PM 15-Aug-21

Joining:

i.Equi-join:

SELECT w.Name, c.Destination

FROM Airline w , flight c

WHERE w.FlightNo = c.FlightNo;

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
SELECT w.Name, c.Destination  
FROM Airline w , flight c  
WHERE w.FlightNo = c.FlightNo;
```

The results are displayed in a table:

NAME	DESTINATION
United Airways	KOLKATA
NovoAir	KRAJSHAHI
Biman Bangladesh Airlines	RANGPUR
Regent Airways	RANGPUR

4 rows returned in 0.02 seconds

CSV Export

Application Express 2.1.0.0.39
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ii. Outer-join:

SELECT w.Name, w.Email, c.Destination

FROM Airline w , flight c

WHERE w.FlightNo(+) = c.FlightNo;

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
SELECT w.Name, w.Email, c.Destination
FROM Airline w , flight c
WHERE w.FlightNo(+) = c.FlightNo;
```

The results section displays the following data:

NAME	EMAIL	DESTINATION
United Airways	unitedair@support.bd	KOLKATA
NovoAir	Novo@bd.com	KRAJSHAH
Biman Bangladesh Airlines	airlines@bd.cov	RANGPUR
Regent Airways	regentairr@bd.com	RANGPUR
-	-	MUMBAI

5 rows returned in 0.00 seconds [CSV Export](#)

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

iii. Self-join:

```
SELECT w.Name||' will be landed in '|| c.Destination  
FROM Airline w , flight c  
WHERE w.FlightNo = c.FlightNo;
```

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
SELECT w.Name||' will be landed in '|| c.Destination  
FROM Airline w , flight c  
WHERE w.FlightNo = c.FlightNo;
```

The results pane displays the output:

W.NAME 'WILLBELANDEDIN' C.DESTINATION
United Airways will be landed in KOLKATA
NovaAir will be landed in KRAJSHAH
Biman Bangladesh Airlines will be landed in RANGPUR
Regent Airways will be landed in RANGPUR

4 rows returned in 0.00 seconds

CSV Export

Language: en-us Application Express 2.1.0.00.39 Copyright © 1999, 2005, Oracle. All rights reserved.

Sub-query:

1. Find out the workers name that starts with S

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
select * from worker where worker.name like 'S%'
```

The results table shows two rows:

EMPID	NAME	JOB	HIREDATE	SAL	CODE
3	Saimun	Manager	27-SEP-93	10000	CGP
4	Shinzon	Clerk	26-MAR-03	15000	CXB

2 rows returned in 0.00 seconds [CSV Export](#)

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2. Find out airport and airplane details

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
select airport.*,types.seats from airport,airplane where airport.regno=airplane.regno
```

The results table shows five rows:

CODE	NAME	COUNTRY	CITY	LOCATION	PHONE	REGNO	TYPES	SEATS
DAC	Shahjalal Int. Airport	Bangladesh	Dhaka	Airport Road	-7911040	BL	BUSINESS	278
JSR	Jassore Airport	Bangladesh	Jassore	Airport By Road	-7219003	AL	BUSINESS	278
CGP	Sha Amanat Int. Airport	Bangladesh	Chittagong	Airport Road Ctg	-2913053	CL	FIRST	278
Syl	Osmani Int. Airport	Bangladesh	Sylhet	Airport Road Syl	-39912449	SL	SECOND	278
CXB	Coxs Bazar Airport	Bangladesh	Coxs Bazar	Sadar Upazila	-44894	CX	THIRD	158

5 rows returned in 0.00 seconds [CSV Export](#)

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3.Find out passenger name, destination, address, office name, ticket no

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
select flight.Destination,passenger.name,passenger.address,bookingoff.name,ticketno from flight,bookingoff,passenger where flight.officeid=bookingoff.officeid and passenger.officeid=bookingoff.officeid
```

The results are displayed in a table:

DESTINATION	NAME	ADDRESS	NAME	TICKETNO
KOLKATA	KHALID	BARIDHARA	PRANTOUR	567392
KOLKATA	HASAN	BARIDHARA	PRANTOUR	567392
KRAJSHAHI	LABIB	BARIDHARA	TOURCOM	536722
RANGPUR	FARIA	UTTARA	VIPTRAVELS	274916

4 rows returned in 0.00 seconds [CSV Export](#)

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4.Find out the destination that costs more than 10000

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
select destination,price from flight,ticket where flight.flightno=ticket.flightno and price>10000
```

The results are displayed in a table:

DESTINATION	PRICE
KOLKATA	15000

1 rows returned in 0.00 seconds [CSV Export](#)

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5.Find out the passenger whose name starts with F

The screenshot shows the Oracle Database Express Edition interface. The URL in the address bar is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The user is SCOTT. In the SQL Commands window, the following SQL query is entered:

```
select * from passenger where passenger.name like 'FX'
```

The results show one row:

ORDERNO	NAME	ADDRESS	GENDER	PHONE	OFFICEID
B991	FARIA	UTTARA	FEMALE	17486542342	L21

1 rows returned in 0.00 seconds. There is a CSV Export link.

At the bottom, the Windows taskbar shows various icons and the date/time as 15-Aug-21 11:57 PM.

6.find out Officers

The screenshot shows the Oracle Database Express Edition interface. The URL in the address bar is 127.0.0.1:8080/apex/f?p=4500:1003:2110169420823950::NO:::. The user is SCOTT. In the SQL Commands window, the following SQL query is entered:

```
select * from worker where job='Officer'
```

The results show one row:

EMPID	NAME	JOB	HIREDATE	SAL	CODE
2	Ridita	Officer	07-JUN-95	90000	DAC

1 rows returned in 0.01 seconds. There is a CSV Export link.

At the bottom, the Windows taskbar shows various icons and the date/time as 15-Aug-21 6:04 PM.

7. find out the names of Clerk and their duty in airport

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
select worker.name,worker.job,airport.name,airport.country from worker,airport where worker.code=airport.code and worker.job='Clerk'
```

The results are displayed in a table:

NAME	JOB	NAME	COUNTRY
Shinzon	Clerk	Coxs Bazar Airport	Bangladesh
Rudro	Clerk	Jassore Airport	Bangladesh

2 rows returned in 0.00 seconds [CSV Export](#)

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8. Find out the Security whose salary is less than 1000

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
select worker.name,worker.job,sal,airport.name,airport.country from worker,airport where worker.code=airport.code and worker.job='Security' and worker.sal<1000
```

The results are displayed in a table:

NAME	JOB	SAL	NAME	COUNTRY
Abir	Security	8000	Shahjalal Int. Airport	Bangladesh

1 rows returned in 0.00 seconds [CSV Export](#)

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9. Find out passenger name and their booking office address.

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
select passenger.name,bookingoff.location from bookingoff,passenger where passenger.officeid=bookingoff.officeid
```

The results table is:

NAME	LOCATION
KHALID	AZIMPUR
HASAN	AZIMPUR
LABIB	MIRPUR
FARIA	AGRABAD

4 rows returned in 0.00 seconds [CSV Export](#)

Language: en-us Application Express 2.1 0 00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

10. Find out airlines and booking office name accordingly

The screenshot shows the Oracle Database Express Edition interface. The SQL command entered is:

```
select airline.name,bookingoff.name from airline,flight,bookingoff where airline.flightno=flight.flightno and flight.officeid=bookingoff.officeid
```

The results table is:

NAME	NAME
United Airways	PRANTOUR
NovoAir	TOURCOM
Biman Bangladesh Airlines	ROYALLINES
Regent Airways	VIPTRAVELS

4 rows returned in 0.00 seconds [CSV Export](#)

Language: en-us Application Express 2.1 0 00.39 Copyright © 1999, 2006, Oracle. All rights reserved.

View:

Complex View Table Creation:

The screenshot shows the Oracle Database Express Edition interface. In the SQL Commands window, the following SQL code is entered:

```
create table complex
(Job Varchar2 (32),
TotalEMP Number (5),
Sal Number (5),
TotalSal Number (10));
```

The results pane shows the message "Table created." and a execution time of "0.00 seconds". The status bar at the bottom right indicates "Application Express 2.1.0.00.39" and "Copyright © 1999, 2006, Oracle. All rights reserved".

Complex View:

The screenshot shows the Oracle Database Express Edition interface. In the SQL Commands window, the following SQL code is entered:

```
insert into complex
(Job,TotalEMP,Sal,TotalSal)
values
('Manager',1,100000,100000)

insert into complex
(Job,TotalEMP,Sal,TotalSal)
values
('Clerk',2,15000,30000)

select * from complex;
```

The results pane displays the following data:

JOB	TOTALEMP	SAL	TOTALSAL
Security	1	8000	8000
Officer	1	90000	90000
Manager	1	100000	100000
Clerk	2	15000	30000

4 rows returned in 0.00 seconds

The status bar at the bottom right indicates "Application Express 2.1.0.00.39" and "Copyright © 1999, 2006, Oracle. All rights reserved".

Constraint in Table:

The screenshot shows the Oracle Database Express Edition SQL Commands interface. The URL is 127.0.0.1:8080/apex/f?p=4500:1003:3713301951700578:NO:::. The user is SCOTT. The SQL command entered is:

```
create table worker
(EMPID Number (5),
NAME Varchar2 (32),
Job Varchar2 (32),
HIREDATE Date,
Sal Number (5),
CODE Varchar2 (32)unique);
```

The results show:

Table created.

0.00 seconds

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The taskbar at the bottom shows various application icons, the date (16-Aug-21), and the time (12:08 PM).