

## QUERIES

### Results from Database Creation Script

#### Airlines

```
1 • SELECT * FROM fbs_ramankaur.airlines;
```

Result Grid			Filter Rows:	Edit:
AirlineID	Name	IATA_Code		
1	Delta Airlines	DL		
2	American Airlines	AA		
*	NULL	NULL		

#### Airports

```
1 • SELECT * FROM fbs_ramankaur.airports;
```

Result Grid						Filter Rows:	Edit:	Export/
AirportID	Name	IATA_Code	City	Country				
1	Los Angeles Intl Airport	LAX	Los Angeles	USA				
2	San Francisco Intl Airport	SFO	San Francisco	USA				
3	San Diego Intl Airport	SAN	San Diego	USA				
*	NULL	NULL	NULL	NULL				

## Flights

```
1 • SELECT * FROM fbs_ramankaur.flights;
```

Result Grid

Filter Rows:

Edit:

Export/Import:

Wrap Cell Content:

	FlightID	FlightNumber	AirlineID	OriginAirportID	DestinationAirportID	DepartureDate	ArrivalDate	Distance
	1	530	1	1	2	2022-10-05 08:20:00	2022-10-05 09:35:00	236
	2	571	1	2	1	2022-10-07 14:00:00	2022-10-07 15:15:00	236
	3	4087	2	2	3	2022-10-26 13:25:00	2022-10-26 17:15:00	447
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

## Passengers

```
1 • SELECT * FROM fbs_ramankaur.passengers;
```

Result Grid					
Filter Rows:		Edit:			
PassengerID	FirstName	LastName	Age	isChild	
1	John	Smith	32	0	
2	Jennifer	Smith	31	0	
3	Jane	Smith	1	1	
NULL	NULL	NULL	NULL	NULL	

## Seats

```
1 ● SELECT * FROM fbs_ramankaur.seats;
```

	FlightID	SeatNumber
▶	1	21A
	1	21B
	1	21C
	1	22A
	1	22B
	1	22C
	1	23A
	1	23B
	1	23C
	2	21A

	FlightID	SeatNumber
	2	21B
	2	21C
	2	22A
	2	22B
	2	22C
	2	23A
	2	23B
	2	23C
	3	21A
	3	21B
	3	21C
	3	22A
	3	22B
	3	22C
	3	23A
	3	23B
	3	23C
*	NULL	NULL

## Bookings

```
1 • SELECT * FROM fbs_ramankaur.bookings;
```

Result Grid

Filter Rows:

Edit:

Export/Import:

Wr

	BookingID	FlightID	PassengerID	SeatNumber	Price	ConfirmationNumber	TicketNumber
▶	1	1	1	23A	228.80	DAGHCX	177200658
	2	1	2	23B	228.80	DAGHCX	178410326
	3	1	3	23C	228.80	DAGHCX	178413421
	4	2	1	23A	228.80	DAGHCX	177200658
	5	2	2	23B	228.80	DAGHCX	178410326
	6	2	3	23C	228.80	DAGHCX	178413421
✱	NULL	NULL	NULL	NULL	NULL	NULL	NULL

## Queries Result

1. Retrieve all flights from Los Angeles to San Francisco

```
2 -- 1) Retrieve all flights from Los Angeles to San Francisco
3 • SELECT FlightNumber,a.Name AS Airline,
4         o.City AS 'From',o.Name AS 'Departure Airport',
5         d.City AS 'To',d.Name AS 'Arrival Airport',
6         f.DepartureDate,f.ArrivalDate,Distance_miles
7 FROM flights f
8 JOIN airports o
9 ON f.OriginAirportID = o.AirportID
10 JOIN airports d
11 ON f.DestinationAirportID = d.AirportID
12 JOIN airlines a
13 ON f.AirlineID = a.AirlineID
14 WHERE f.OriginAirportID = 1 AND f.DestinationAirportID = 2
--
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	FlightNumber	Airline	From	Departure Airport	To	Arrival Airport	DepartureDate	ArrivalDate	Distance_miles
	530	Delta Airlines	Los Angeles	Los Angeles Intl Airport	San Francisco	San Francisco Intl Airport	2022-10-05 08:20:00	2022-10-05 09:35:00	236

## 2. Find available seats on a specific flight

```
36 -- Correct answer
37 • SELECT f.FlightNumber,s.SeatNumber AS 'Available Seats'
38 FROM seats s
39 JOIN flights f
40 ON s.FlightID = f.FlightID
41 WHERE SeatNumber NOT IN
42 (SELECT b.SeatNumber
43 FROM bookings b
44 WHERE b.FlightID = 1)
45 AND s.FlightID = 1;
46
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
FlightNumber	Available Seats			
530	21A			
530	21B			
530	21C			
530	22A			
530	22B			
530	22C			

## 3. Retrieve the booking details for a specific confirmation number

```
1 -- 3) Retrieve the booking details for a specific confirmation number
2 • SELECT b.ConfirmationNumber,b.TicketNumber,b.SeatNumber,f.FlightNumber,a.Name AS 'Airline',
3         FirstName,LastName,o.City AS 'From',o.Name AS 'Departure Airport',
4         d.City AS 'To',d.Name AS 'Arrival Airport',
5         f.DepartureDate,f.ArrivalDate
6 FROM bookings b
7 JOIN flights f
8 ON b.FlightID = f.flightID
9 JOIN passengers p
0 ON b.PassengerID = p.PassengerID
1 JOIN airports o
2 ON o.AirportID = f.OriginAirportID
3 JOIN airports d
4 ON d.AirportID = f.DestinationAirportID
5 JOIN airlines a
6 ON f.AirlineID = a.AirlineID
7 WHERE ConfirmationNumber = 'DAGHCX'
```

	ConfirmationNumber	TicketNumber	SeatNumber	FlightNumber	Airline	FirstName	LastName	From	Departure Airport	To	Arrival Airport	DepartureDate	ArrivalDate
▶	DAGHCX	178413421	23C	571	Delta Airlines	Jane	Smith	San Francisco	San Francisco Intl Airport	Los Angeles	Los Angeles Intl Airport	2022-10-07 14:00:00	2022-10-07 15:15:00
	DAGHCX	178410326	23B	571	Delta Airlines	Jennifer	Smith	San Francisco	San Francisco Intl Airport	Los Angeles	Los Angeles Intl Airport	2022-10-07 14:00:00	2022-10-07 15:15:00
	DAGHCX	177200658	23A	571	Delta Airlines	John	Smith	San Francisco	San Francisco Intl Airport	Los Angeles	Los Angeles Intl Airport	2022-10-07 14:00:00	2022-10-07 15:15:00
	DAGHCX	178413421	23C	530	Delta Airlines	Jane	Smith	Los Angeles	Los Angeles Intl Airport	San Francisco	San Francisco Intl Airport	2022-10-05 08:20:00	2022-10-05 09:35:00
	DAGHCX	178410326	23B	530	Delta Airlines	Jennifer	Smith	Los Angeles	Los Angeles Intl Airport	San Francisco	San Francisco Intl Airport	2022-10-05 08:20:00	2022-10-05 09:35:00
	DAGHCX	177200658	23A	530	Delta Airlines	John	Smith	Los Angeles	Los Angeles Intl Airport	San Francisco	San Francisco Intl Airport	2022-10-05 08:20:00	2022-10-05 09:35:00

4. Find the total cost of a booking

```

67      -- Find the total cost of a booking
68 •    SELECT b.ConfirmationNumber, SUM(b.Price) AS TotalCost
69      FROM bookings b
70      WHERE b.ConfirmationNumber = 'DAGHCX'

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
ConfirmationNumber	TotalCost			
▶ DAGHCX	1372.80			

5. Retrieve all passengers in a specific booking

```



72      -- 5) Retrieve all passengers in a specific booking
73 •    SELECT ConfirmationNumber, FirstName, LastName, Age
74      FROM bookings b
75      JOIN passengers p
76      ON b.PassengerID = p.PassengerID
77      WHERE ConfirmationNumber = 'DAGHCX';
78
79

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
ConfirmationNumber	FirstName	LastName	Age	
▶ DAGHCX	John	Smith	32	
DAGHCX	John	Smith	32	
DAGHCX	Jennifer	Smith	31	
DAGHCX	Jennifer	Smith	31	
DAGHCX	Jane	Smith	1	
DAGHCX	Jane	Smith	1	

6. Get details of all flights booked under a specific confirmation number

```
1  -- 6) Get details of all flights booked under a specific confirmation number
2  SELECT DISTINCT f.FlightNumber,
3                  b ConfirmationNumber,
4                  a.Name AS 'Airline',
5                  o.City AS 'From', o.Name AS 'Departure Airport',
6                  d.City AS 'To', d.Name AS 'Arrival Airport',
7                  f.DepartureDate, f.ArrivalDate, Distance_miles
8  FROM bookings b
9  JOIN flights f
10 ON f.FlightID = b.flightID
11 JOIN airlines a
12 ON f.AirlineID = a.AirlineID
13 JOIN airports o
14 ON o.AirportID = f.OriginAirportID
15 JOIN airports d
16 ON d.AirportID = f.DestinationAirportID
17 WHERE ConfirmationNumber = 'DAGHCX';
```

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

	FlightNumber	ConfirmationNumber	Airline	From	Departure Airport	To	Arrival Airport	DepartureDate	ArrivalDate
▶	571	DAGHCX	Delta Airlines	San Francisco	San Francisco Intl Airport	Los Angeles	Los Angeles Intl Airport	2022-10-07 14:00:00	2022-10-07 15:15:00
	530	DAGHCX	Delta Airlines	Los Angeles	Los Angeles Intl Airport	San Francisco	San Francisco Intl Airport	2022-10-05 08:20:00	2022-10-05 09:35:00



7. Find the price for each passenger in a booking

```
97  -- 7) Find the price for each passenger in a booking
98  • SELECT b ConfirmationNumber, FirstName, LastName, sum(b.Price) AS Price
99  FROM bookings b
100 JOIN passengers p
101 ON b.PassengerID = p.PassengerID
102 WHERE b ConfirmationNumber = 'DAGHCX'
103 GROUP BY b ConfirmationNumber, p.PassengerID;
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
ConfirmationNumber	FirstName	LastName	Price
DAGHCX	John	Smith	457.60
DAGHCX	Jennifer	Smith	457.60
DAGHCX	Jane	Smith	457.60




8. Find all children in a booking

```
105      -- 8) Find all children in a booking
106 •    SELECT ConfirmationNumber,FirstName,LastName,isChild
107      FROM bookings b
108      JOIN passengers p
109      ON b.PassengerID = p.PassengerID
110      WHERE ConfirmationNumber = 'DAGHCX' AND isChild = 1
111      GROUP BY FirstName,LastName
112
```

Result Grid				
Filter Rows: <input type="text"/>				
Export:  Wrap Cell Content: 				
	ConfirmationNumber	FirstName	LastName	isChild
▶	DAGHCX	Jane	Smith	1

9. Find the airline with the most flights

```
122      -- 10) Find the airline with most flights
123 •    SELECT a.Name AS 'Airline', COUNT(F.FlightID) AS NumberofFlights
124      From Airlines a
125      JOIN Flights f
126      ON a.AirlineID = f.AirlineID
127      GROUP BY a.AirlineID
128      ORDER BY NumberOfFlights DESC
129      LIMIT 1
130
131
```

Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Content:  Fetch rows: 		
	Airline	NumberofFlights
▶	Delta Airlines	2



#### 10. Update the price of Children (50% discount)

```
122 -- 9) Update the price of Children (50% discount)
123 -- updating price
124 • UPDATE bookings b
125 SET Price = Price * 0.5 WHERE b.PassengerID =
126 (SELECT p.PassengerID
127 FROM passengers p
128 WHERE isChild = 1);
129
130 -- Verifying results
131 • SELECT ConfirmationNumber,SeatNumber,FirstName,LastName,Price,isChild
132 FROM bookings b
133 JOIN passengers p
134 ON b.PassengerID = p.PassengerID
135 WHERE isChild = 1
```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	ConfirmationNumber	SeatNumber	FirstName	LastName	Price	isChild
▶	DAGHCX	23C	Jane	Smith	114.40	1
	DAGHCX	23C	Jane	Smith	114.40	1