

1.1

CREATE DATABASE TUTORIALSESSIONS;

USE TUTORIALSESSIONS;

--1.1

CREATE TABLE TUTOR (

Tutor_ID VARCHAR(5) primary key NOT NULL,

Tutor_Name VARCHAR(1000) NOT NULL,

);

CREATE TABLE SCHOOL (

School_ID VARCHAR(5) primary key NOT NULL,

School_Name VARCHAR(50) NOT NULL,

School_Address VARCHAR(150) NOT NULL,

);

CREATE TABLE SESSIONS(

Tutor_ID VARCHAR(5),

FOREIGN KEY (Tutor_ID) REFERENCES TUTOR(Tutor_ID),

School_ID VARCHAR(5),

FOREIGN KEY (School_ID) REFERENCES SCHOOL(School_ID),

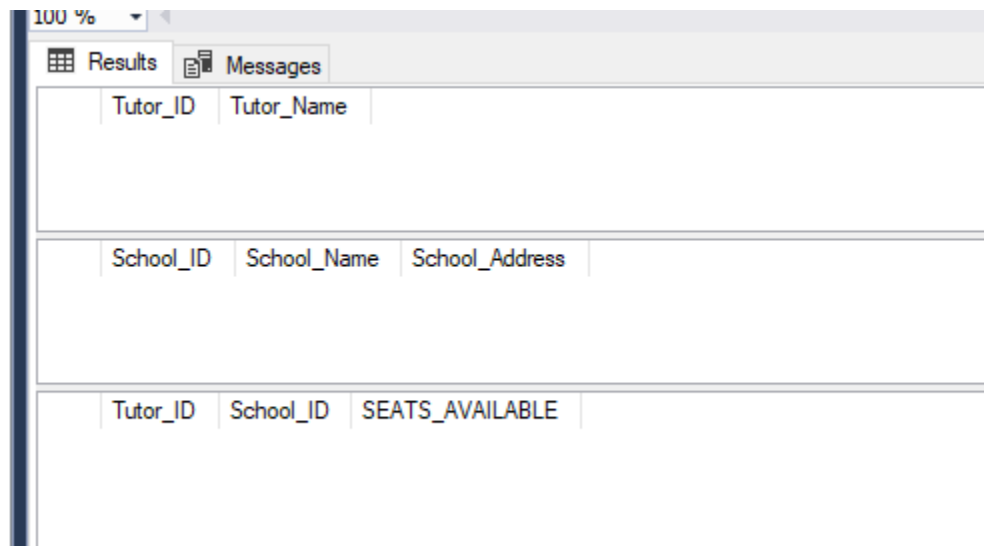
SEATS_AVAILABLE smallint,

);

SELECT * FROM TUTOR

SELECT * FROM SCHOOL

SELECT * FROM SESSIONS



The screenshot shows a database query results window. At the top, there is a zoom level dropdown set to '100 %'. Below it are two tabs: 'Results' (active) and 'Messages'. The 'Results' tab displays a table with three columns: 'Tutor_ID', 'Tutor_Name', and 'School_Address'. The table has three rows of data. The first row has values '1', 'John Doe', and '123 Main St'. The second row has values '2', 'Jane Smith', and '456 Elm St'. The third row has values '3', 'Bob Johnson', and '789 Oak St'.

Tutor_ID	Tutor_Name	School_Address
1	John Doe	123 Main St
2	Jane Smith	456 Elm St
3	Bob Johnson	789 Oak St

1.2

```
INSERT INTO TUTOR VALUES('A001','Mia Phillips'),  
('A002','Bam Mbombo'),  
('A003','Wendy Grootboom'),  
('A004','Henk Cloete'),  
('A005','Sihle Nukani');
```

```
INSERT into SCHOOL values ('C001','Joburg High','167 Pert Road,Johannesburg'),  
('C002','Gqeberha Secondary','5 Second Avenue ,Gqeberha'),  
('C003','Mkhize Secondary','33 Bertha Mkhize Street,Durban'),  
('C004','Durban High','27 Bram Fischer Road,Durban'),  
('C005','Tshwane High','210 Du Toit Street ,Tshwane');
```

```
INSERT INTO SESSIONS VALUES('A002','C001',50),  
('A002','C004',30),  
('A003','C005',15),  
('A004','C003',20),  
('A004','C001',40);
```

Results		Messages	
	Tutor_ID	Tutor_Name	
1	A001	Mia Phillips	
2	A002	Bam Mbombo	
3	A003	Wendy Grootboom	
4	A004	Henk Cloete	
5	A005	Sihle Nukani	

	School_ID	School_Name	School_Address
1	C001	Joburg High	167 Pert Road,Johannesburg
2	C002	Gqeberha Secondary	5 Second Avenue ,Gqeberha
3	C003	Mkhize Secondary	33 Bertha Mkhize Street,Durban
4	C004	Durban High	27 Bram Fischer Road,Durban
5	C005	Tshwane High	210 Du Toit Street ,Tshwane

	Tutor_ID	School_ID	SEATS_AVAILABLE
1	A002	C001	50
2	A002	C004	30
3	A003	C005	15
4	A004	C003	20
5	A004	C001	40

1.3

ALTER TABLE SESSIONS

ADD SEATS_BOOKED SMALLINT ;

Results

Messages

	Tutor_ID	School_ID	SEATS_AVAILABLE	SEATS_BOOKED
1	A002	C001	50	NULL
2	A002	C004	30	NULL
3	A003	C005	15	NULL
4	A004	C003	20	NULL
5	A004	C001	40	35

1.4

UPDATE SESSIONS

SET SEATS_BOOKED = 35

WHERE Tutor_ID ='A004' and School_ID='C001';

	Tutor_ID	School_ID	SEATS_AVAILABLE	SEATS_BOOKED
1	A002	C001	50	NULL
2	A002	C004	30	NULL
3	A003	C005	15	NULL
4	A004	C003	20	NULL
5	A004	C001	40	35

2.1

SELECT TUTOR.Tutor_Name,SESSIONS.SEATS_AVAILABLE AS
TUTORS_NOT_BOOKED_AT_SCHOOLS

FROM TUTOR

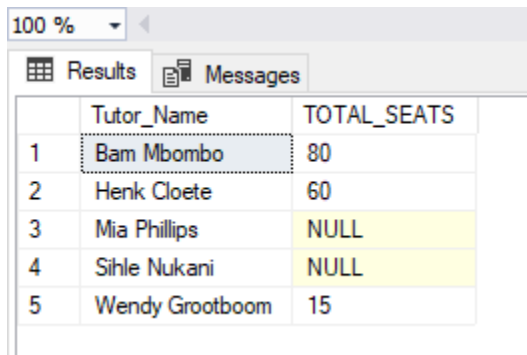
LEFT JOIN SESSIONS ON TUTOR.Tutor_ID = SESSIONS.Tutor_ID

WHERE SESSIONS.SEATS_AVAILABLE IS NULL;

	Tutor_Name	TUTORS_NOT_BOOKED_AT_SCHOOLS
1	Mia Phillips	NULL
2	Sihle Nukani	NULL

2.2

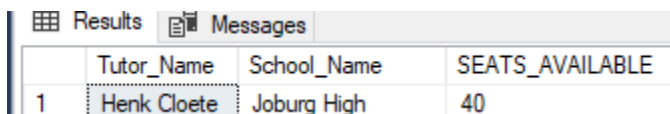
```
SELECT TUTOR.Tutor_Name, SUM(SESSIONS.SEATS_AVAILABLE) AS TOTAL_SEATS
FROM TUTOR
LEFT JOIN SESSIONS ON TUTOR.Tutor_ID = SESSIONS.Tutor_ID
GROUP BY TUTOR.Tutor_Name
ORDER BY Tutor_Name ASC;
```



	Tutor_Name	TOTAL_SEATS
1	Bam Mbombo	80
2	Henk Cloete	60
3	Mia Phillips	NULL
4	Sihle Nukani	NULL
5	Wendy Grootboom	15

2.3

```
SELECT TUTOR.Tutor_Name, SCHOOL.School_Name, MAX(SESSIONS.SEATS_AVAILABLE)
AS SEATS_AVAILABLE
FROM TUTOR
JOIN SESSIONS ON TUTOR.Tutor_ID = SESSIONS.Tutor_ID
JOIN SCHOOL ON SCHOOL.School_ID = SESSIONS.School_ID
WHERE SESSIONS.Tutor_ID ='A004'
GROUP BY Tutor_Name, School_Name, SEATS_AVAILABLE
ORDER BY SESSIONS.SEATS_AVAILABLE DESC ;
```



	Tutor_Name	School_Name	SEATS_AVAILABLE
1	Henk Cloete	Joburg High	40