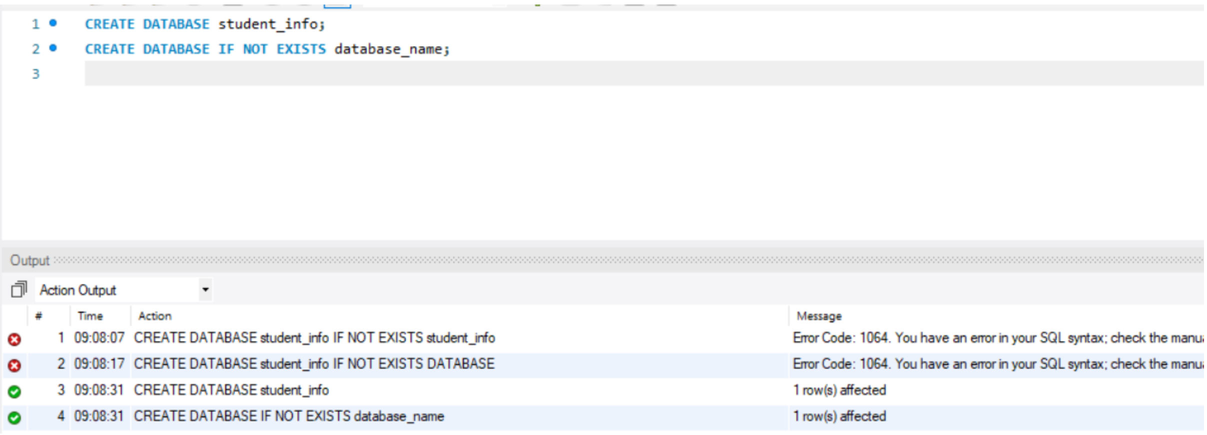
SQL Assignment

Prateek Majumder

Create Database:

CREATE DATABASE student_info;

CREATE DATABASE IF NOT EXISTS database_name;



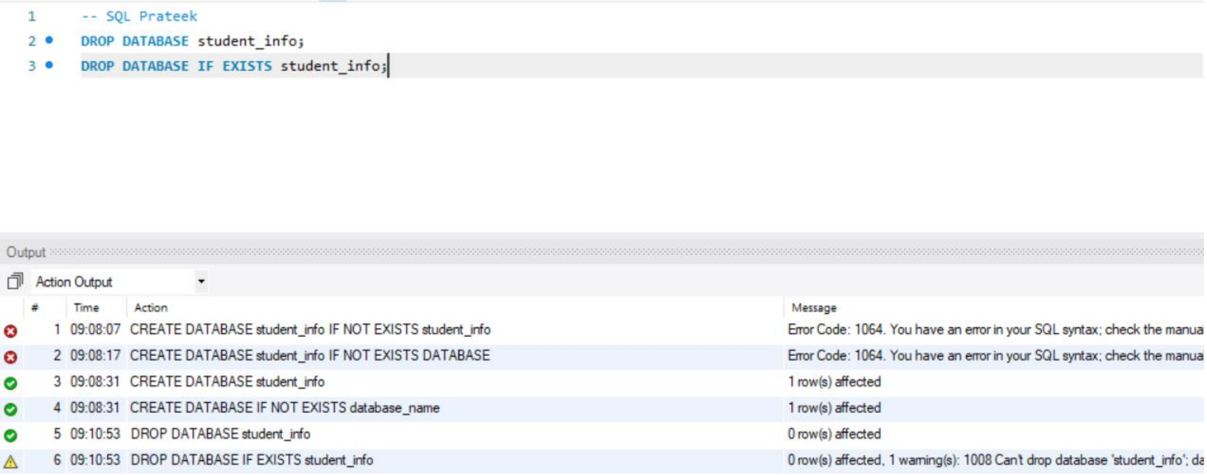
```
CREATE DATABASE student_info;
CREATE DATABASE IF NOT EXISTS database_name;
```

	#	Time	Action	Message
✖	1	09:08:07	CREATE DATABASE student_info IF NOT EXISTS student_info	Error Code: 1064. You have an error in your SQL syntax; check the manu
✖	2	09:08:17	CREATE DATABASE student_info IF NOT EXISTS DATABASE	Error Code: 1064. You have an error in your SQL syntax; check the manu
✓	3	09:08:31	CREATE DATABASE student_info	1 row(s) affected
✓	4	09:08:31	CREATE DATABASE IF NOT EXISTS database_name	1 row(s) affected

Drop Database:

DROP DATABASE student_info;

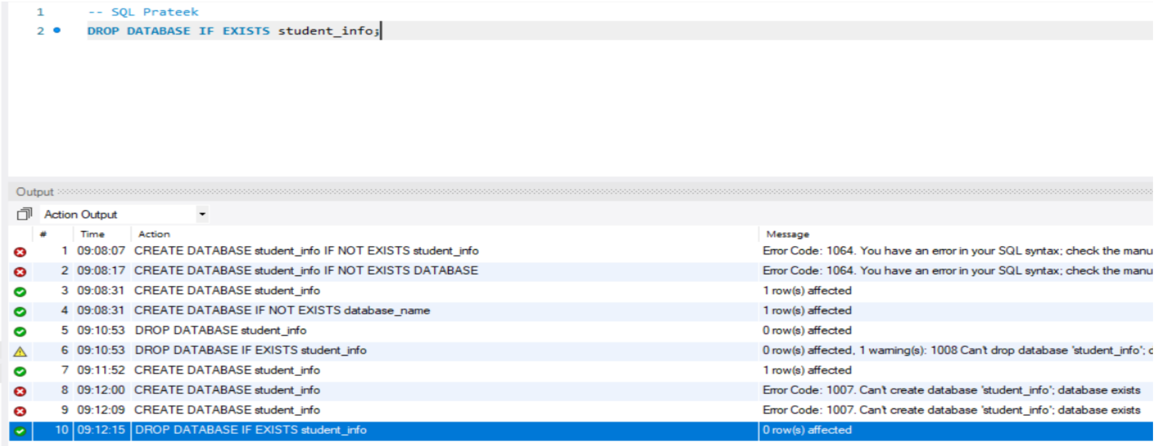
DROP DATABASE IF EXISTS student_info;



```
-- SQL Prateek
DROP DATABASE student_info;
DROP DATABASE IF EXISTS student_info;
```

	#	Time	Action	Message
✖	1	09:08:07	CREATE DATABASE student_info IF NOT EXISTS student_info	Error Code: 1064. You have an error in your SQL syntax; check the manua
✖	2	09:08:17	CREATE DATABASE student_info IF NOT EXISTS DATABASE	Error Code: 1064. You have an error in your SQL syntax; check the manua
✓	3	09:08:31	CREATE DATABASE student_info	1 row(s) affected
✓	4	09:08:31	CREATE DATABASE IF NOT EXISTS database_name	1 row(s) affected
✓	5	09:10:53	DROP DATABASE student_info	0 row(s) affected
⚠	6	09:10:53	DROP DATABASE IF EXISTS student_info	0 row(s) affected, 1 warning(s): 1008 Can't drop database 'student_info'; da

DROP DATABASE IF EXISTS student_info;



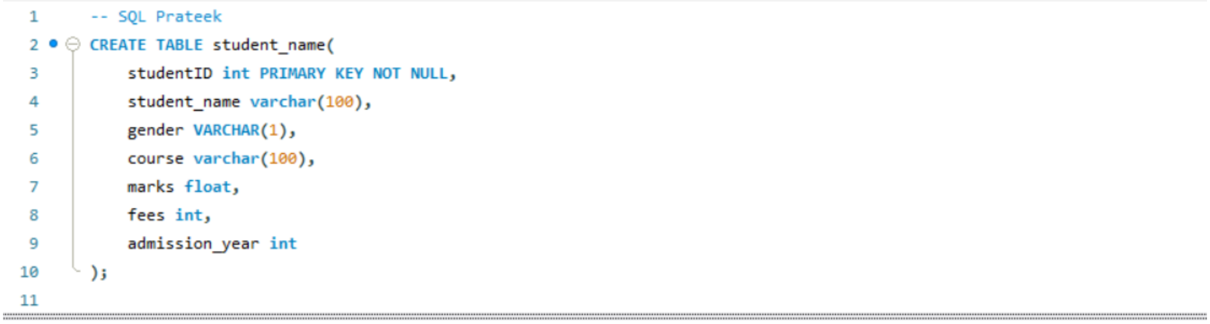
```
-- SQL Prateek
DROP DATABASE IF EXISTS student_info;
```

	#	Time	Action	Message
✖	1	09:08:07	CREATE DATABASE student_info IF NOT EXISTS student_info	Error Code: 1064. You have an error in your SQL syntax; check the manu
✖	2	09:08:17	CREATE DATABASE student_info IF NOT EXISTS DATABASE	Error Code: 1064. You have an error in your SQL syntax; check the manu
✓	3	09:08:31	CREATE DATABASE student_info	1 row(s) affected
✓	4	09:08:31	CREATE DATABASE IF NOT EXISTS database_name	1 row(s) affected
✓	5	09:10:53	DROP DATABASE student_info	0 row(s) affected
⚠	6	09:10:53	DROP DATABASE IF EXISTS student_info	0 row(s) affected, 1 warning(s): 1008 Can't drop database 'student_info'; c
✓	7	09:11:52	CREATE DATABASE student_info	1 row(s) affected
✖	8	09:12:00	CREATE DATABASE student_info	Error Code: 1007. Can't create database 'student_info'; database exists
✖	9	09:12:09	CREATE DATABASE student_info	Error Code: 1007. Can't create database 'student_info'; database exists
✓	10	09:12:15	DROP DATABASE IF EXISTS student_info	0 row(s) affected

Create Table:

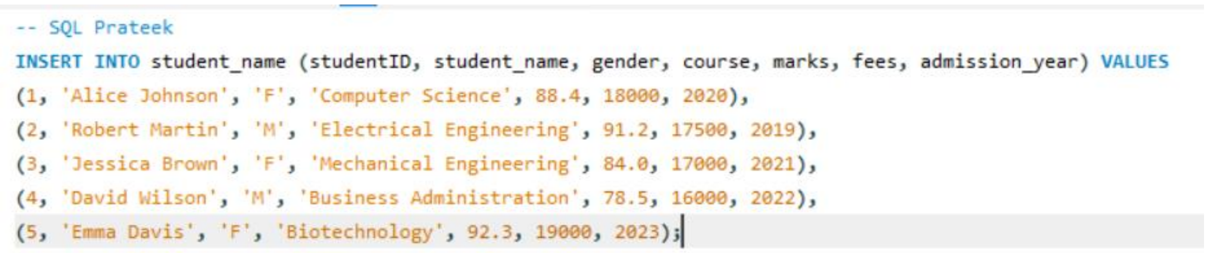
USE student_info;

```
CREATE TABLE student_name(
   studentID int PRIMARY KEY NOT NULL,
   student_name varchar(100),
   gender VARCHAR(1),
   course varchar(100),
   marks float,
   fees int,
   admission_year int
);
```



```
-- SQL Prateek
CREATE TABLE student_name(
    studentID int PRIMARY KEY NOT NULL,
    student_name varchar(100),
    gender VARCHAR(1),
    course varchar(100),
    marks float,
    fees int,
    admission_year int
);
```

Insert Data Into Table:

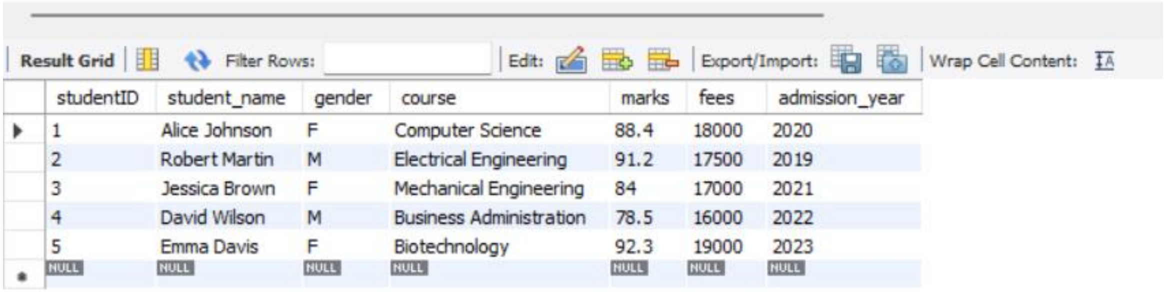


```
-- SQL Prateek
INSERT INTO student_name (studentID, student_name, gender, course, marks, fees, admission_year) VALUES
(1, 'Alice Johnson', 'F', 'Computer Science', 88.4, 18000, 2020),
(2, 'Robert Martin', 'M', 'Electrical Engineering', 91.2, 17500, 2019),
(3, 'Jessica Brown', 'F', 'Mechanical Engineering', 84.0, 17000, 2021),
(4, 'David Wilson', 'M', 'Business Administration', 78.5, 16000, 2022),
(5, 'Emma Davis', 'F', 'Biotechnology', 92.3, 19000, 2023);
```

Viewing the Entire Data:

SELECT * FROM student_name;

```
-- SQL Prateek
SELECT * FROM student_name;
```

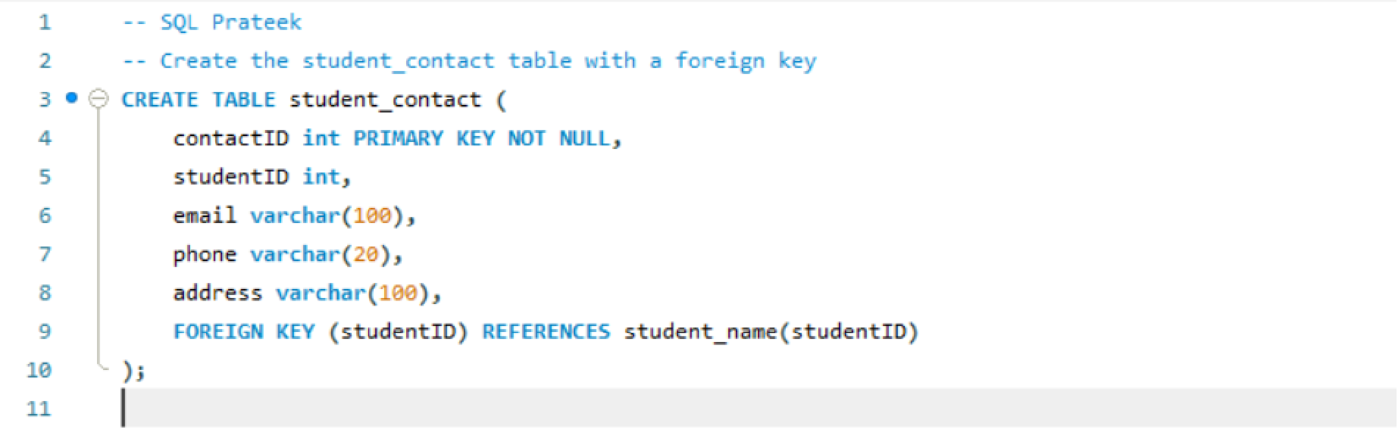


studentID	student_name	gender	course	marks	fees	admission_year
1	Alice Johnson	F	Computer Science	88.4	18000	2020
2	Robert Martin	M	Electrical Engineering	91.2	17500	2019
3	Jessica Brown	F	Mechanical Engineering	84	17000	2021
4	David Wilson	M	Business Administration	78.5	16000	2022
5	Emma Davis	F	Biotechnology	92.3	19000	2023
NULL	NULL	NULL	NULL	NULL	NULL	NULL

Foreign Key:

-- Create the student_contact table with a foreign key

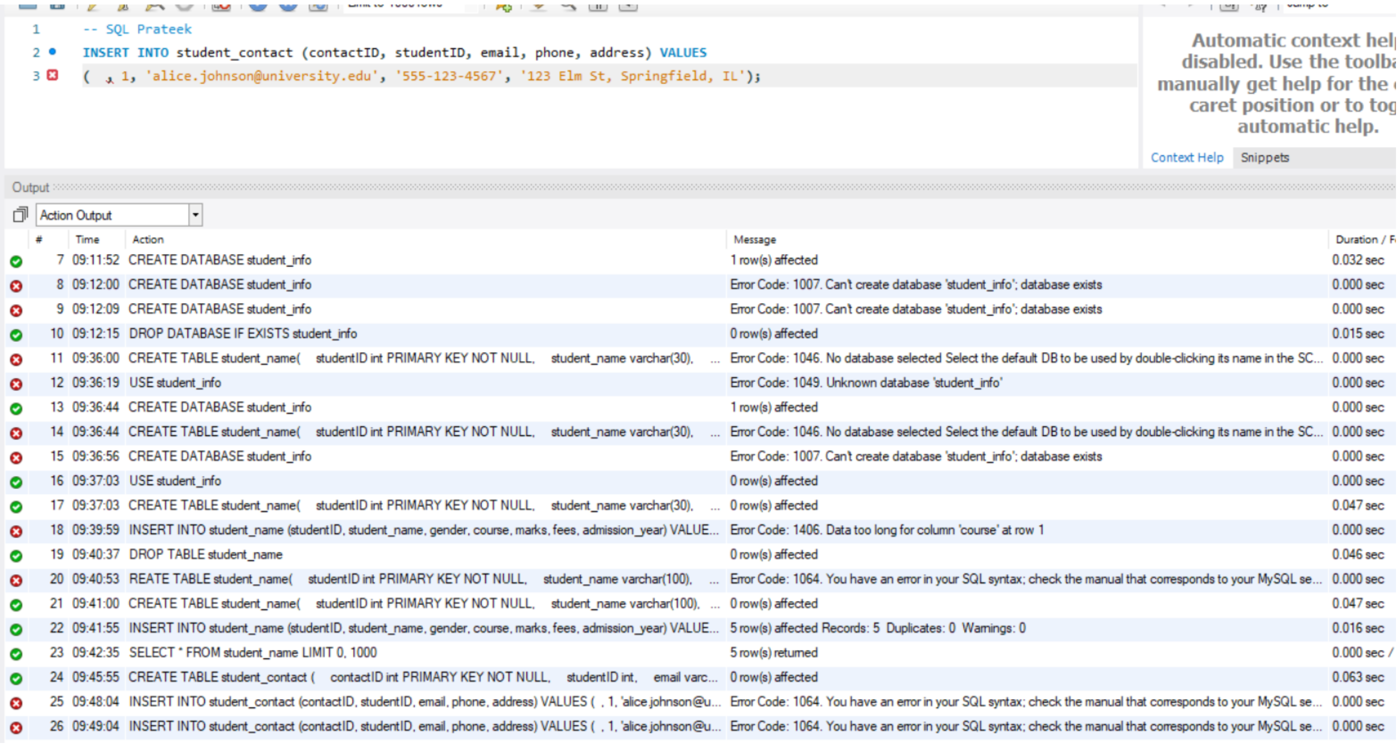
```
CREATE TABLE student_contact (
    contactID int PRIMARY KEY NOT NULL,
    studentID int,
    email varchar(100),
    phone varchar(20),
    address varchar(100),
    FOREIGN KEY (studentID) REFERENCES student_name(studentID)
);
```



```
-- SQL Prateek
-- Create the student_contact table with a foreign key
CREATE TABLE student_contact (
    contactID int PRIMARY KEY NOT NULL,
    studentID int,
    email varchar(100),
    phone varchar(20),
    address varchar(100),
    FOREIGN KEY (studentID) REFERENCES student_name(studentID)
);
```

Inserting Data:

Error if properly not done:



```
-- SQL Prateek
INSERT INTO student_contact (contactID, studentID, email, phone, address) VALUES
(  , 1, 'alice.johnson@university.edu', '555-123-4567', '123 Elm St, Springfield, IL');
```

Automatic context hel
disabled. Use the toolba
manually get help for the
caret position or to tog
automatic help.

	#	Time	Action	Message	Duration / F
✓	7	09:11:52	CREATE DATABASE student_info	1 row(s) affected	0.032 sec
✗	8	09:12:00	CREATE DATABASE student_info	Error Code: 1007. Can't create database 'student_info'; database exists	0.000 sec
✗	9	09:12:09	CREATE DATABASE student_info	Error Code: 1007. Can't create database 'student_info'; database exists	0.000 sec
✓	10	09:12:15	DROP DATABASE IF EXISTS student_info	0 row(s) affected	0.015 sec
✗	11	09:36:00	CREATE TABLE student_name(studentID int PRIMARY KEY NOT NULL, student_name varchar(30), ...	Error Code: 1046. No database selected Select the default DB to be used by double-clicking its name in the SC...	0.000 sec
✗	12	09:36:19	USE student_info	Error Code: 1049. Unknown database 'student_info'	0.000 sec
✓	13	09:36:44	CREATE DATABASE student_info	1 row(s) affected	0.000 sec
✗	14	09:36:44	CREATE TABLE student_name(studentID int PRIMARY KEY NOT NULL, student_name varchar(30), ...	Error Code: 1046. No database selected Select the default DB to be used by double-clicking its name in the SC...	0.000 sec
✗	15	09:36:56	CREATE DATABASE student_info	Error Code: 1007. Can't create database 'student_info'; database exists	0.000 sec
✓	16	09:37:03	USE student_info	0 row(s) affected	0.000 sec
✓	17	09:37:03	CREATE TABLE student_name(studentID int PRIMARY KEY NOT NULL, student_name varchar(30), ...	0 row(s) affected	0.047 sec
✗	18	09:39:59	INSERT INTO student_name (studentID, student_name, gender, course, marks, fees, admission_year) VALUE...	Error Code: 1406. Data too long for column 'course' at row 1	0.000 sec
✓	19	09:40:37	DROP TABLE student_name	0 row(s) affected	0.046 sec
✗	20	09:40:53	REATE TABLE student_name(studentID int PRIMARY KEY NOT NULL, student_name varchar(100), ...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
✓	21	09:41:00	CREATE TABLE student_name(studentID int PRIMARY KEY NOT NULL, student_name varchar(100), ...	0 row(s) affected	0.047 sec
✓	22	09:41:55	INSERT INTO student_name (studentID, student_name, gender, course, marks, fees, admission_year) VALUE...	5 row(s) affected Records: 5 Duplicates: 0 Warnings: 0	0.016 sec
✓	23	09:42:35	SELECT * FROM student_name LIMIT 0, 1000	5 row(s) returned	0.000 sec /
✓	24	09:45:55	CREATE TABLE student_contact (contactID int PRIMARY KEY NOT NULL, studentID int, email varc...	0 row(s) affected	0.063 sec
✗	25	09:48:04	INSERT INTO student_contact (contactID, studentID, email, phone, address) VALUES (, 1, 'alice.johnson@u...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec
✗	26	09:49:04	INSERT INTO student_contact (contactID, studentID, email, phone, address) VALUES (, 1, 'alice.johnson@u...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL se...	0.000 sec

Inserting Properly:

INSERT INTO student_contact (contactID, studentID, email, phone, address) VALUES

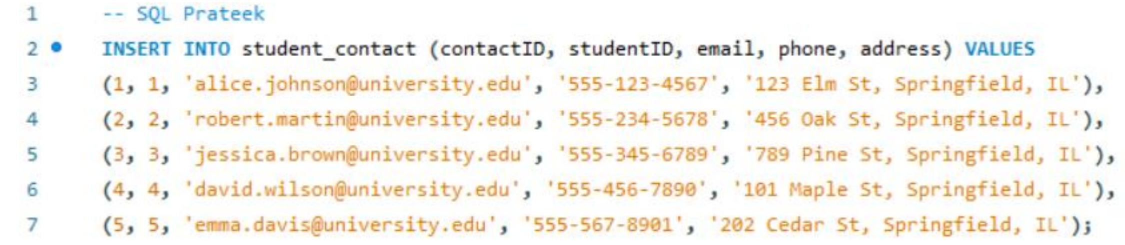
(1, 1, 'alice.johnson@university.edu', '555-123-4567', '123 Elm St, Springfield, IL'),

(2, 2, 'robert.martin@university.edu', '555-234-5678', '456 Oak St, Springfield, IL'),

(3, 3, 'jessica.brown@university.edu', '555-345-6789', '789 Pine St, Springfield, IL'),

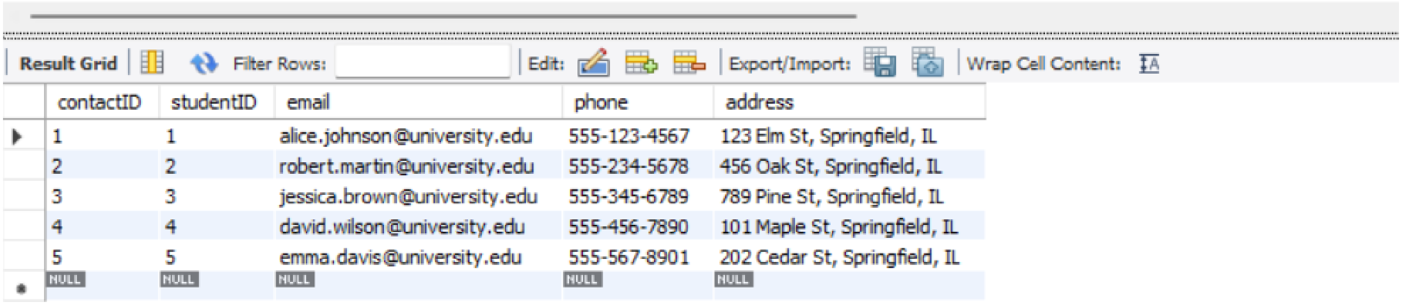
(4, 4, 'david.wilson@university.edu', '555-456-7890', '101 Maple St, Springfield, IL'),

(5, 5, 'emma.davis@university.edu', '555-567-8901', '202 Cedar St, Springfield, IL');



```
-- SQL Prateek
INSERT INTO student_contact (contactID, studentID, email, phone, address) VALUES
(1, 1, 'alice.johnson@university.edu', '555-123-4567', '123 Elm St, Springfield, IL'),
(2, 2, 'robert.martin@university.edu', '555-234-5678', '456 Oak St, Springfield, IL'),
(3, 3, 'jessica.brown@university.edu', '555-345-6789', '789 Pine St, Springfield, IL'),
(4, 4, 'david.wilson@university.edu', '555-456-7890', '101 Maple St, Springfield, IL'),
(5, 5, 'emma.davis@university.edu', '555-567-8901', '202 Cedar St, Springfield, IL');
```

```
-- SQL Prateek
SELECT * FROM student_contact;
```



contactID	studentID	email	phone	address
1	1	alice.johnson@university.edu	555-123-4567	123 Elm St, Springfield, IL
2	2	robert.martin@university.edu	555-234-5678	456 Oak St, Springfield, IL
3	3	jessica.brown@university.edu	555-345-6789	789 Pine St, Springfield, IL
4	4	david.wilson@university.edu	555-456-7890	101 Maple St, Springfield, IL
5	5	emma.davis@university.edu	555-567-8901	202 Cedar St, Springfield, IL
NULL	NULL	NULL	NULL	NULL

More Sample Data For Student Name:

-- Insert additional realistic sample data into student_name table

INSERT INTO student_name (studentID, student_name, gender, course, marks, fees, admission_year) VALUES

(6, 'Liam Johnson', 'M', 'Civil Engineering', 80.6, 15500, 2020),

(7, 'Olivia Smith', 'F', 'Environmental Science', 89.7, 17000, 2019),

(8, 'Noah Williams', 'M', 'Information Technology', 85.3, 18000, 2021),

(9, 'Sophia Martinez', 'F', 'Psychology', 91.8, 16000, 2022),

(10, 'James Anderson', 'M', 'Economics', 77.4, 15000, 2023),

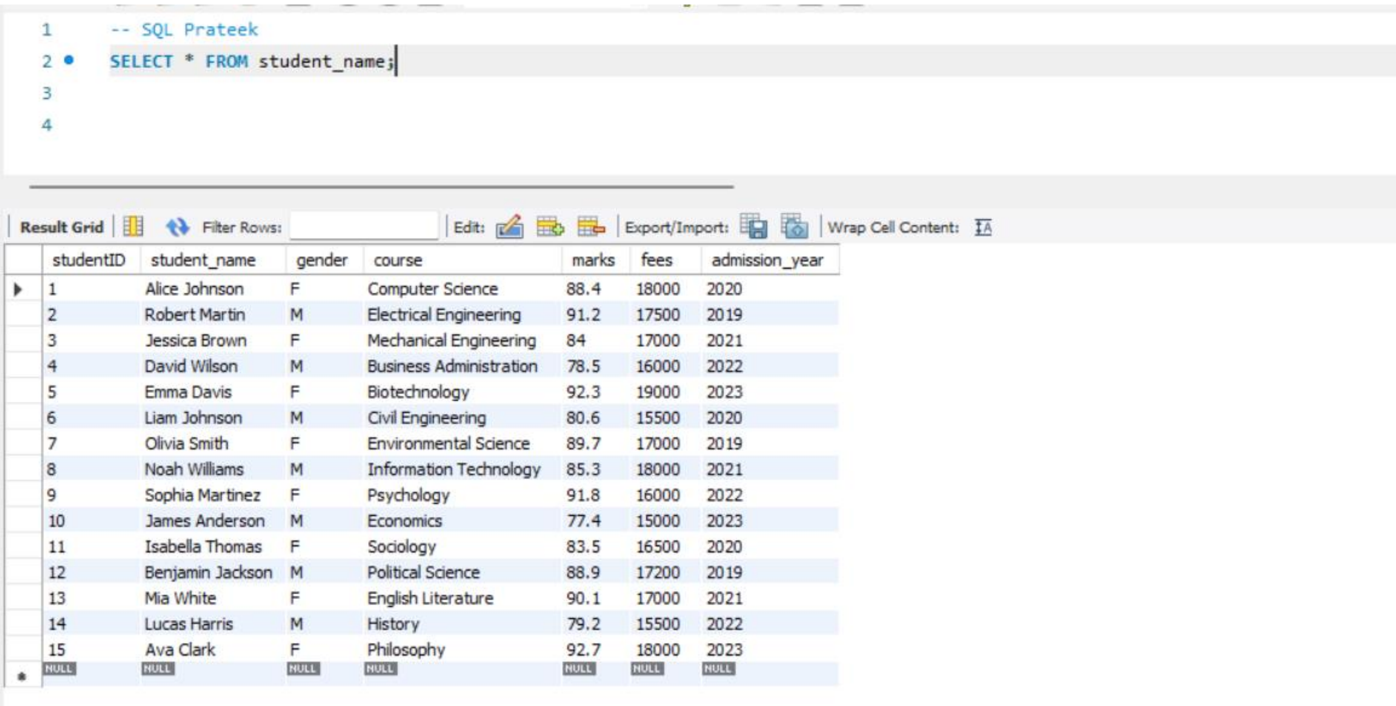
(11, 'Isabella Thomas', 'F', 'Sociology', 83.5, 16500, 2020),

(12, 'Benjamin Jackson', 'M', 'Political Science', 88.9, 17200, 2019),

(13, 'Mia White', 'F', 'English Literature', 90.1, 17000, 2021),

(14, 'Lucas Harris', 'M', 'History', 79.2, 15500, 2022),

(15, 'Ava Clark', 'F', 'Philosophy', 92.7, 18000, 2023);



```
-- SQL Prateek
SELECT * FROM student_name;
```

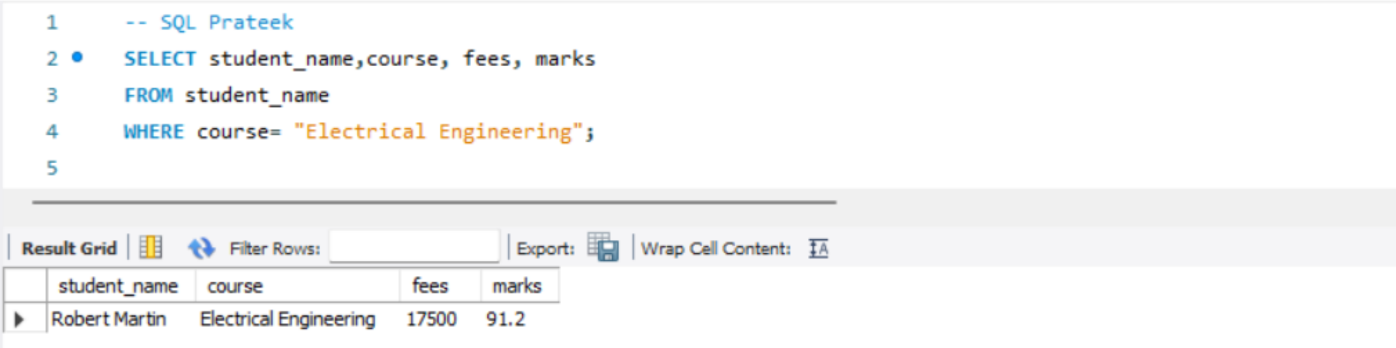
	studentID	student_name	gender	course	marks	fees	admission_year
▶	1	Alice Johnson	F	Computer Science	88.4	18000	2020
	2	Robert Martin	M	Electrical Engineering	91.2	17500	2019
	3	Jessica Brown	F	Mechanical Engineering	84	17000	2021
	4	David Wilson	M	Business Administration	78.5	16000	2022
	5	Emma Davis	F	Biotechnology	92.3	19000	2023
	6	Liam Johnson	M	Civil Engineering	80.6	15500	2020
	7	Olivia Smith	F	Environmental Science	89.7	17000	2019
	8	Noah Williams	M	Information Technology	85.3	18000	2021
	9	Sophia Martinez	F	Psychology	91.8	16000	2022
	10	James Anderson	M	Economics	77.4	15000	2023
	11	Isabella Thomas	F	Sociology	83.5	16500	2020
	12	Benjamin Jackson	M	Political Science	88.9	17200	2019
	13	Mia White	F	English Literature	90.1	17000	2021
	14	Lucas Harris	M	History	79.2	15500	2022
	15	Ava Clark	F	Philosophy	92.7	18000	2023
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Queries:

SELECT student_name,course, fees, marks

FROM student_name

WHERE course= "Electrical Engineering";



```
-- SQL Prateek
SELECT student_name,course, fees, marks
FROM student_name
WHERE course= "Electrical Engineering";
```

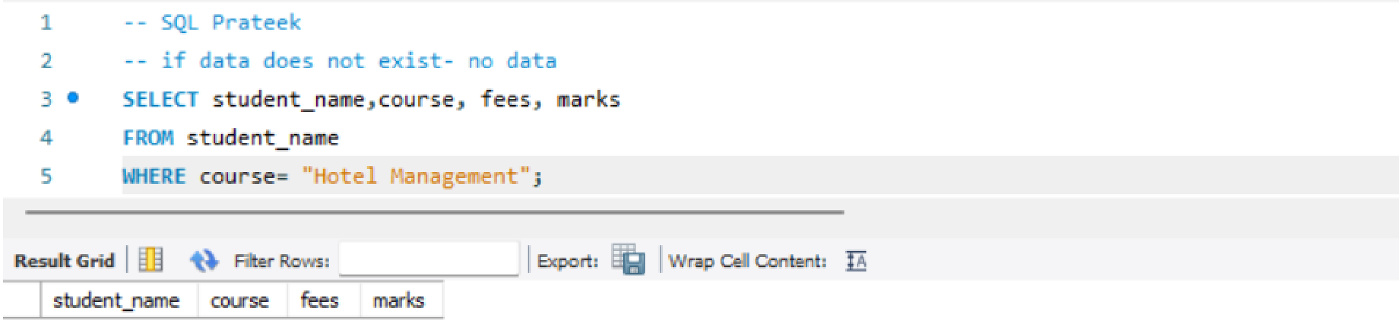
	student_name	course	fees	marks
▶	Robert Martin	Electrical Engineering	17500	91.2

-- if data does not exist- no data

SELECT student_name,course, fees, marks

FROM student_name

WHERE course= "Hotel Management";



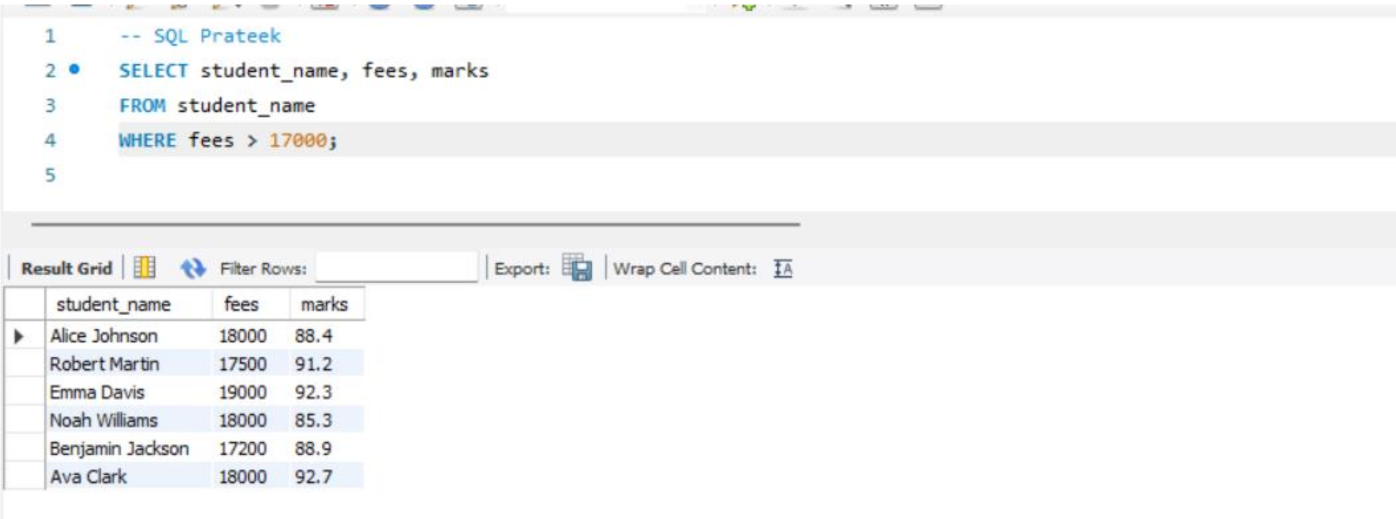
```
-- SQL Prateek
-- if data does not exist- no data
SELECT student_name,course, fees, marks
FROM student_name
WHERE course= "Hotel Management";
```

	student_name	course	fees	marks

SELECT student_name, fees, marks

FROM student_name

WHERE fees > 17000;



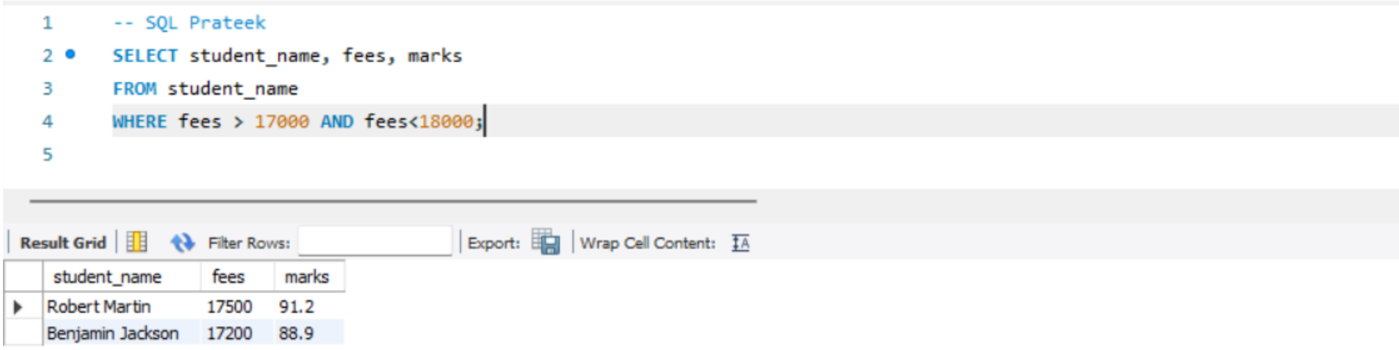
```
-- SQL Prateek
SELECT student_name, fees, marks
FROM student_name
WHERE fees > 17000;
```

student_name	fees	marks
Alice Johnson	18000	88.4
Robert Martin	17500	91.2
Emma Davis	19000	92.3
Noah Williams	18000	85.3
Benjamin Jackson	17200	88.9
Ava Clark	18000	92.7

SELECT student_name, fees, marks

FROM student_name

WHERE fees > 17000 AND fees<18000;



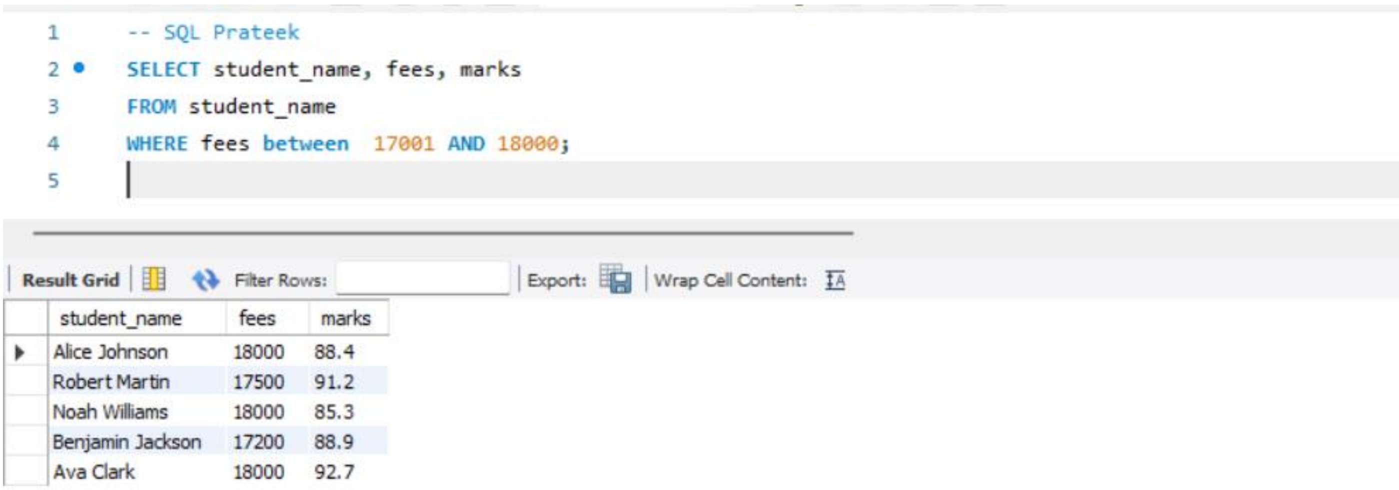
```
-- SQL Prateek
SELECT student_name, fees, marks
FROM student_name
WHERE fees > 17000 AND fees<18000;
```

student_name	fees	marks
Robert Martin	17500	91.2
Benjamin Jackson	17200	88.9

SELECT student_name, fees, marks

FROM student_name

WHERE fees between 17001 AND 18000;



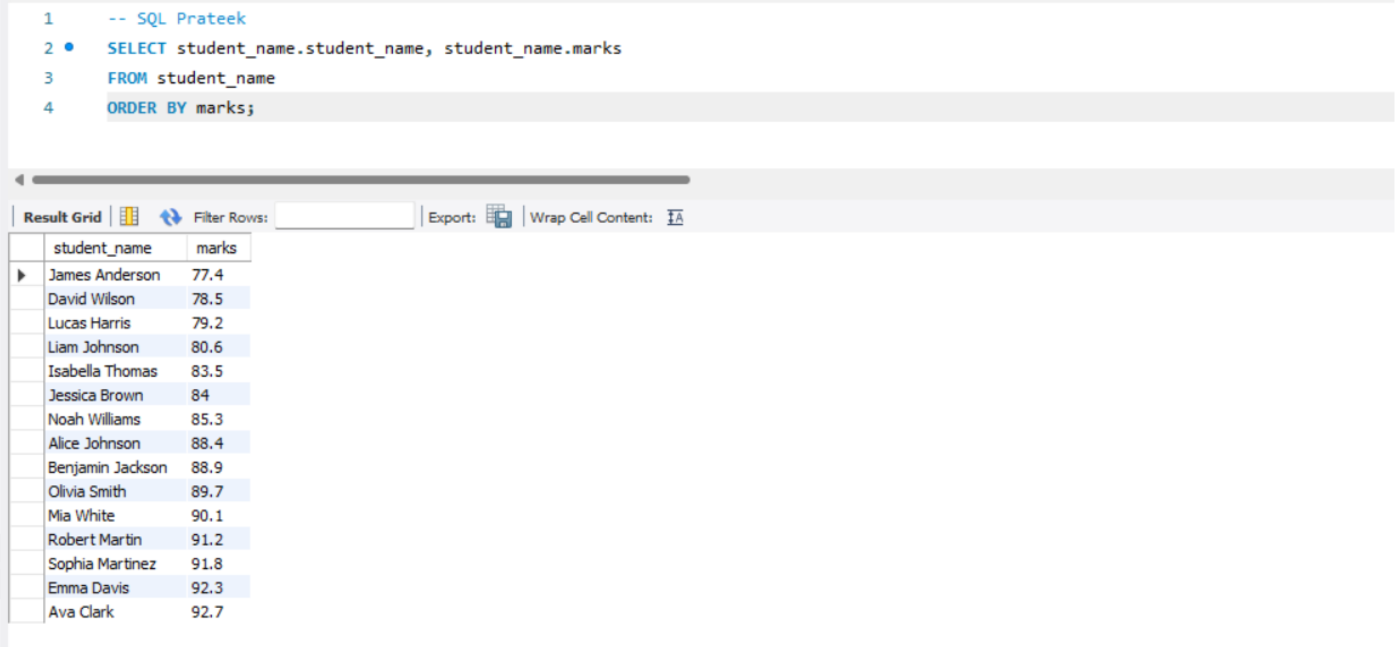
```
-- SQL Prateek
SELECT student_name, fees, marks
FROM student_name
WHERE fees between  17001 AND 18000;
```

student_name	fees	marks
Alice Johnson	18000	88.4
Robert Martin	17500	91.2
Noah Williams	18000	85.3
Benjamin Jackson	17200	88.9
Ava Clark	18000	92.7

SELECT student_name.student_name, student_name.marks

FROM student_name

ORDER BY marks;



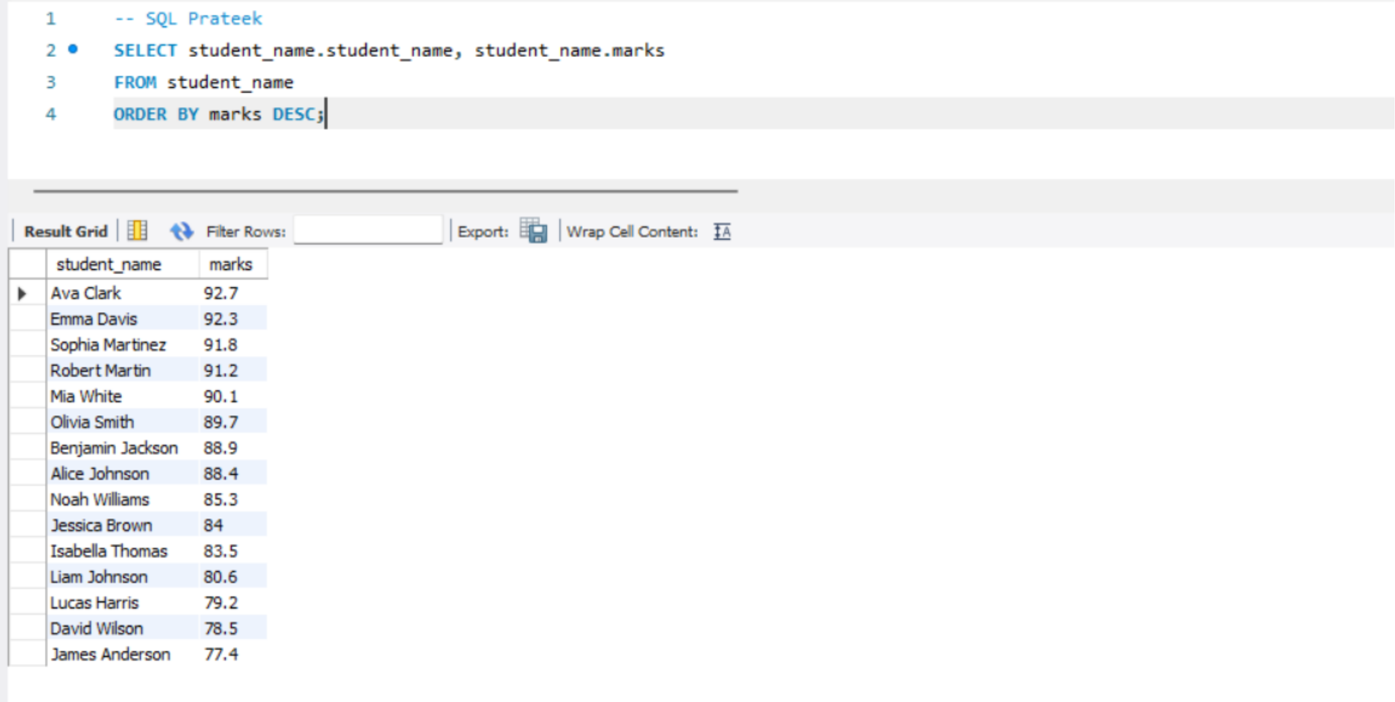
```
-- SQL Prateek
SELECT student_name.student_name, student_name.marks
FROM student_name
ORDER BY marks;
```

student_name	marks
James Anderson	77.4
David Wilson	78.5
Lucas Harris	79.2
Liam Johnson	80.6
Isabella Thomas	83.5
Jessica Brown	84
Noah Williams	85.3
Alice Johnson	88.4
Benjamin Jackson	88.9
Olivia Smith	89.7
Mia White	90.1
Robert Martin	91.2
Sophia Martinez	91.8
Emma Davis	92.3
Ava Clark	92.7

SELECT student_name.student_name, student_name.marks

FROM student_name

ORDER BY marks DESC;



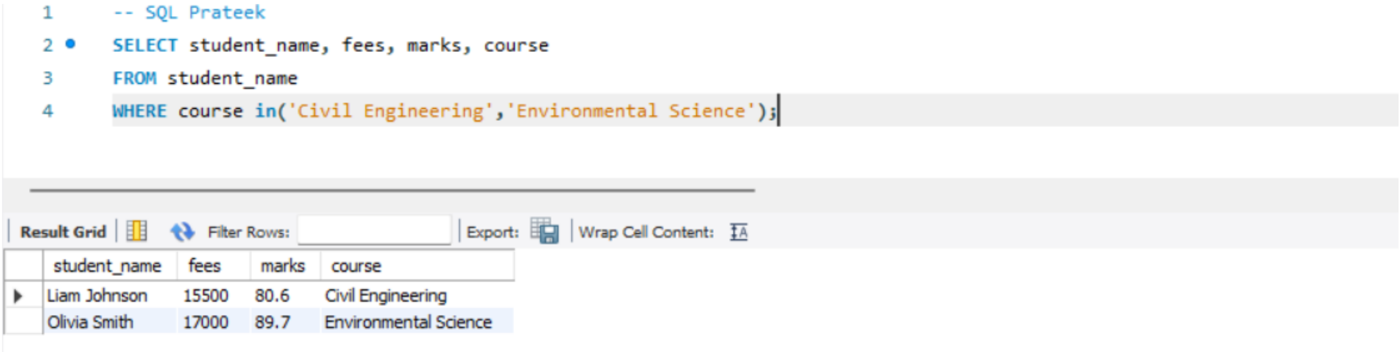
```
-- SQL Prateek
SELECT student_name.student_name, student_name.marks
FROM student_name
ORDER BY marks DESC;
```

student_name	marks
Ava Clark	92.7
Emma Davis	92.3
Sophia Martinez	91.8
Robert Martin	91.2
Mia White	90.1
Olivia Smith	89.7
Benjamin Jackson	88.9
Alice Johnson	88.4
Noah Williams	85.3
Jessica Brown	84
Isabella Thomas	83.5
Liam Johnson	80.6
Lucas Harris	79.2
David Wilson	78.5
James Anderson	77.4

SELECT student_name, fees, marks, course

FROM student_name

WHERE course in('Civil Engineering','Environmental Science');



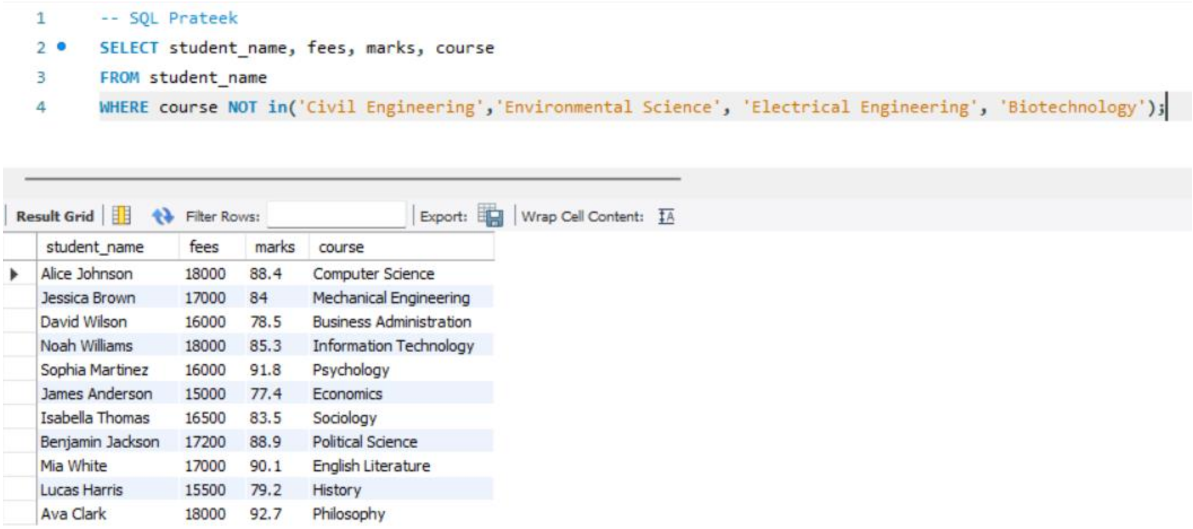
```
-- SQL Prateek
SELECT student_name, fees, marks, course
FROM student_name
WHERE course in('Civil Engineering','Environmental Science');
```

student_name	fees	marks	course
Liam Johnson	15500	80.6	Civil Engineering
Olivia Smith	17000	89.7	Environmental Science

SELECT student_name, fees, marks, course

FROM student_name

WHERE course NOT in('Civil Engineering','Environmental Science', 'Electrical Engineering', 'Biotechnology');



```
-- SQL Prateek
SELECT student_name, fees, marks, course
FROM student_name
WHERE course NOT in('Civil Engineering','Environmental Science', 'Electrical Engineering', 'Biotechnology');
```

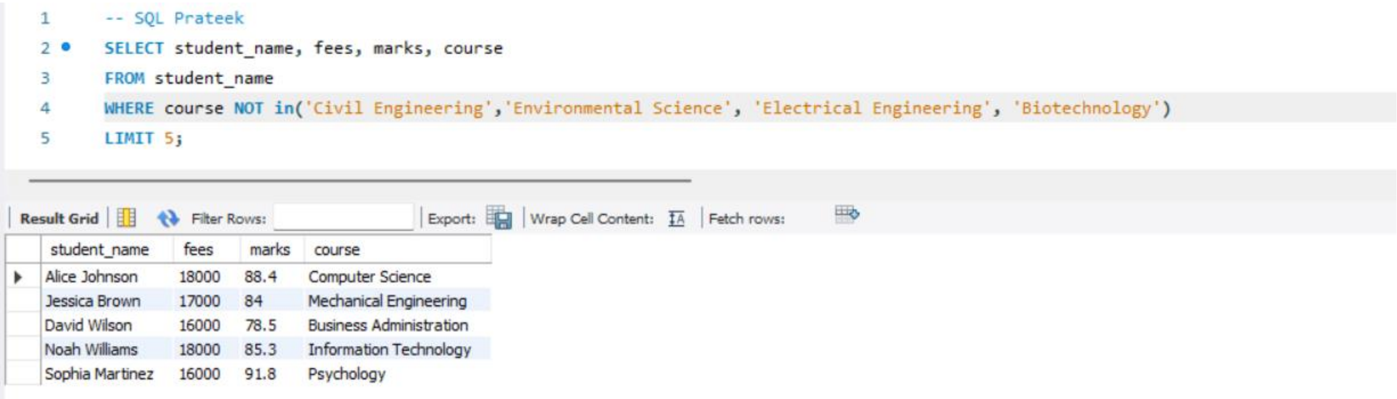
student_name	fees	marks	course
Alice Johnson	18000	88.4	Computer Science
Jessica Brown	17000	84	Mechanical Engineering
David Wilson	16000	78.5	Business Administration
Noah Williams	18000	85.3	Information Technology
Sophia Martinez	16000	91.8	Psychology
James Anderson	15000	77.4	Economics
Isabella Thomas	16500	83.5	Sociology
Benjamin Jackson	17200	88.9	Political Science
Mia White	17000	90.1	English Literature
Lucas Harris	15500	79.2	History
Ava Clark	18000	92.7	Philosophy

SELECT student_name, fees, marks, course

FROM student_name

WHERE course NOT in('Civil Engineering','Environmental Science', 'Electrical Engineering', 'Biotechnology')

LIMIT 5;



```
-- SQL Prateek
SELECT student_name, fees, marks, course
FROM student_name
WHERE course NOT in('Civil Engineering','Environmental Science', 'Electrical Engineering', 'Biotechnology')
LIMIT 5;
```

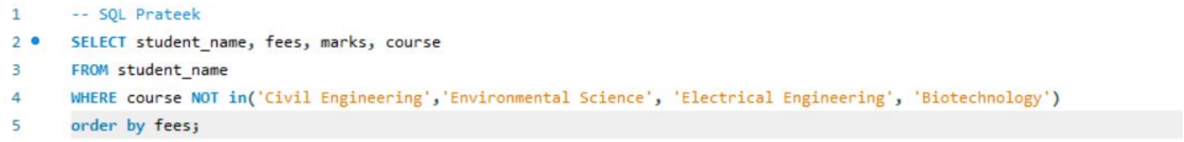
student_name	fees	marks	course
Alice Johnson	18000	88.4	Computer Science
Jessica Brown	17000	84	Mechanical Engineering
David Wilson	16000	78.5	Business Administration
Noah Williams	18000	85.3	Information Technology
Sophia Martinez	16000	91.8	Psychology

SELECT student_name, fees, marks, course

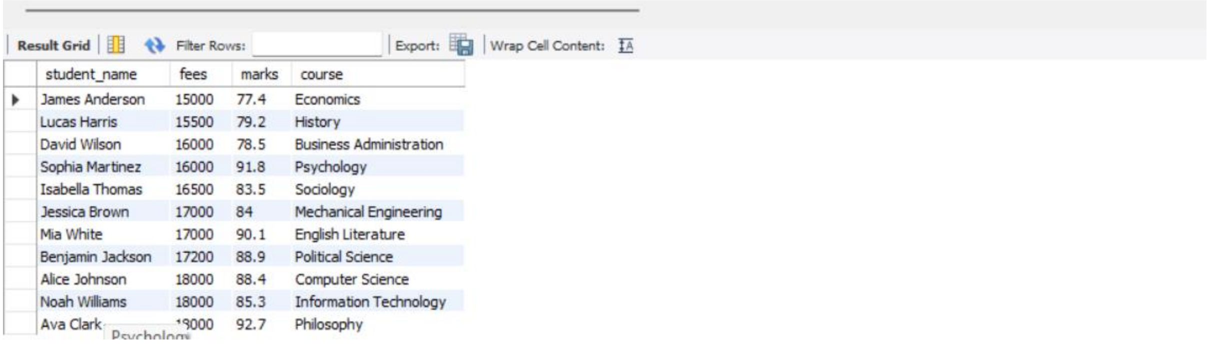
FROM student_name

WHERE course NOT in('Civil Engineering','Environmental Science', 'Electrical Engineering', 'Biotechnology')

order by fees;



```
-- SQL Prateek
SELECT student_name, fees, marks, course
FROM student_name
WHERE course NOT in('Civil Engineering','Environmental Science', 'Electrical Engineering', 'Biotechnology')
order by fees;
```

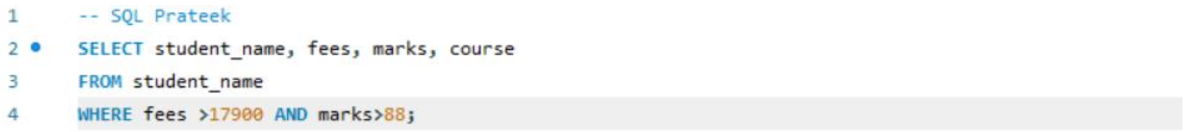


student_name	fees	marks	course
James Anderson	15000	77.4	Economics
Lucas Harris	15500	79.2	History
David Wilson	16000	78.5	Business Administration
Sophia Martinez	16000	91.8	Psychology
Isabella Thomas	16500	83.5	Sociology
Jessica Brown	17000	84	Mechanical Engineering
Mia White	17000	90.1	English Literature
Benjamin Jackson	17200	88.9	Political Science
Alice Johnson	18000	88.4	Computer Science
Noah Williams	18000	85.3	Information Technology
Ava Clark	18000	92.7	Philosophy

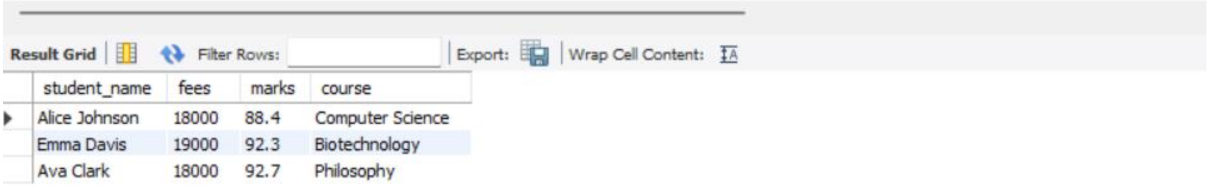
SELECT student_name, fees, marks, course

FROM student_name

WHERE fees >17900 AND marks>88;



```
-- SQL Prateek
SELECT student_name, fees, marks, course
FROM student_name
WHERE fees >17900 AND marks>88;
```

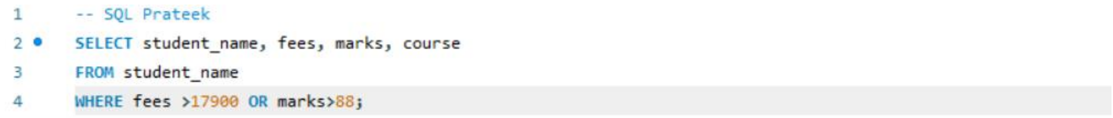


student_name	fees	marks	course
Alice Johnson	18000	88.4	Computer Science
Emma Davis	19000	92.3	Biotechnology
Ava Clark	18000	92.7	Philosophy

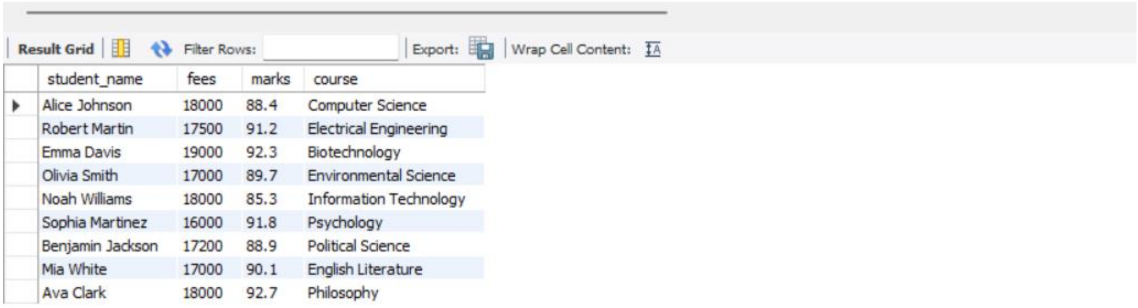
SELECT student_name, fees, marks, course

FROM student_name

WHERE fees >17900 OR marks>88;



```
-- SQL Prateek
SELECT student_name, fees, marks, course
FROM student_name
WHERE fees >17900 OR marks>88;
```



student_name	fees	marks	course
Alice Johnson	18000	88.4	Computer Science
Robert Martin	17500	91.2	Electrical Engineering
Emma Davis	19000	92.3	Biotechnology
Olivia Smith	17000	89.7	Environmental Science
Noah Williams	18000	85.3	Information Technology
Sophia Martinez	16000	91.8	Psychology
Benjamin Jackson	17200	88.9	Political Science
Mia White	17000	90.1	English Literature
Ava Clark	18000	92.7	Philosophy