PES UNIVERSITY, BANGALORE
Department of Computer Science and Engineering

B.TECH.

(CSE) VI

SEMESTER

UE20CS301 – Database Management Systems (Minors)

Mini-Project Report

On

HOSTEL MANAGEMENT SYSTEM

SUBMITTED BY

Name	SRN
Ananya S Nadig	PES1UG20EC025
Shubha S Chaugule	PES1UG20EC192
Varsha V Pai	PES1UG20EC241

January – May
2023

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

BENGALURU – 560085, KARNATAKA, INDIA

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

PROJECT SYNOPSIS:

1. PROBLEM STATEMENT : Hostel management system

The proposed Hostel Management System utilizes a DBMS to create a centralized database that stores and manages all hostel-related data. The purpose of developing a Hostel Management System is to replace manual, paper-based processes with a digital solution that simplifies and enhances hostel management.

Entities - Student, dependent, fee, lg, unit, staff

Relationship types -

i) Student **goes on** LG **- 1:1**

ii) Staff **works for** Unit **- N:1**

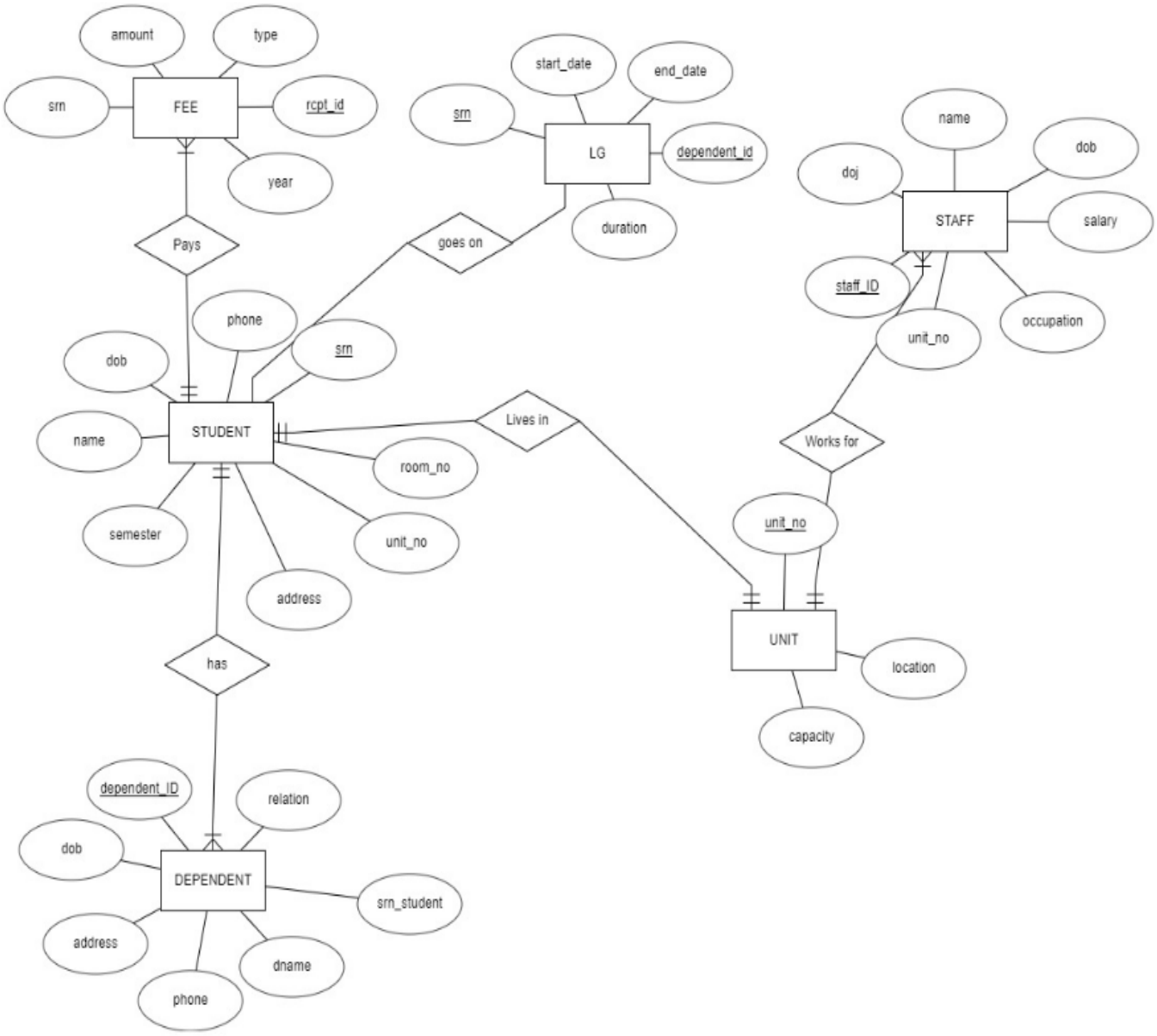
iii) Student **pays** fee - **1:N**

iv) Student **has** dependent **- 1:N**

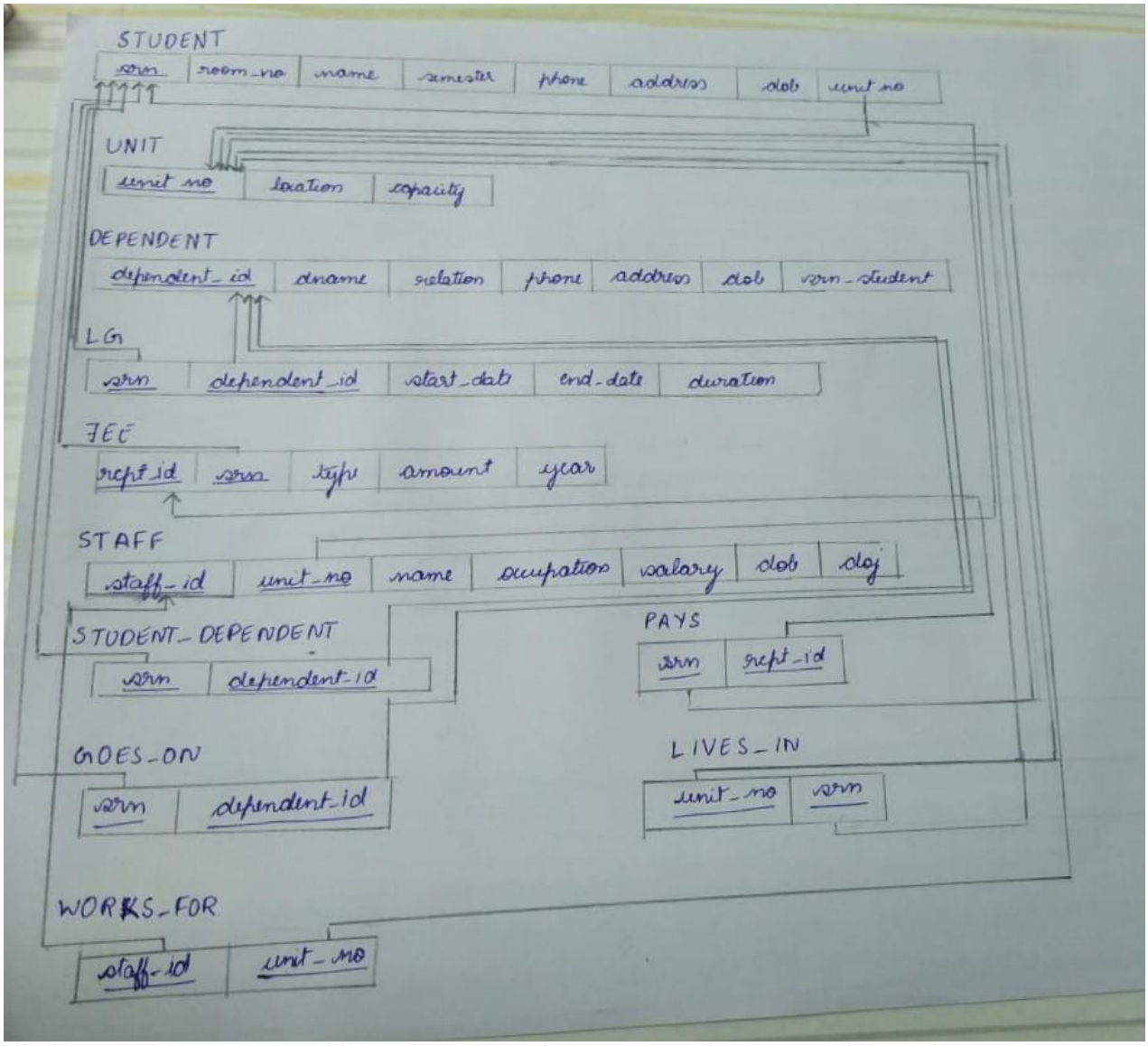
v) Student **lives in** unit **- 1:1**

Normal form - 3NF

2. ER DIAGRAM

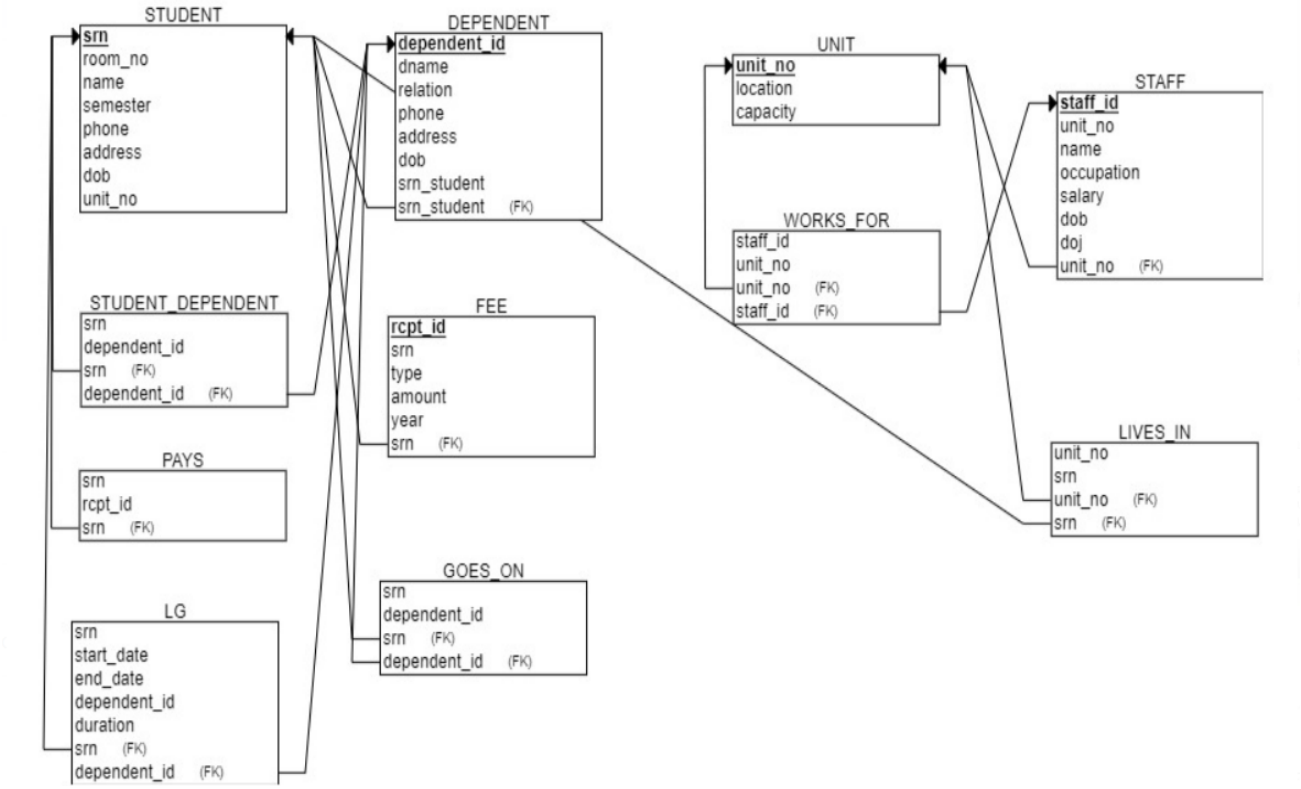

amount
type
srn
FEE
rcpt_id
year
Pays
start_date
end_date
srn
LG
dependent_id
duration
goes on
name
dob
doj
STAFF
salary
staff_ID
occupation
unit_no
phone
srn
dob
name
STUDENT
Lives in
Works for
room_no
semester
unit_no
address
unit_no
UNIT
location
capacity
has
dependent_ID
relation
dob
DEPENDENT
srn_student
address
dname
phone

3. RELATIONAL SCHEMA



PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering



4. INDIVIDUAL CONTRIBUTION REPORT

Team Member	**Contribution**
Ananya S Nadig (PES1UG20EC025)	• ER Diagram • Relational schema • Queries • Github updation • Report
Shubha Chaugule (PES1UG20EC192)	• ER Diagram • Relational schema • Queries • Github updation • Report
Varsha V Pai (PES1UG20EC241)	• ER Diagram • Relational schema • Queries • Github updation • Report

5. QUERIES TO CREATE TABLES

➔ student Table

```
create table student(room_no int, srn varchar(50), name varchar(50), semester int, phone bigint, address varchar(200), PRIMARY KEY(srn));

 alter table student add column unit_no int;
 alter table student add constraint FOREIGN KEY (unit_no) references unit(unit_no);
 alter table student ADD dob date;
 alter table student add column srn varchar(50);
```

➔ dependent Table

```
create table dependent(dependent_id int,dname varchar(50),relation varchar(50),phone bigint, address varchar(100),dob date,PRIMARY KEY(dependent_id));
```

➔ student_dependent Table

```
create table student_dependent(srn varchar(50),dependent_id int ,PRIMARY KEY(srn, dependent_id), FOREIGN KEY(srn) REFERENCES student(srn) ON DELETE CASCADE, FOREIGN KEY(dependent_id) REFERENCES dependent(dependent_id));
```

➔ unit Table

```
create table unit(unit_no int PRIMARY KEY, location varchar(100), capacity int);
```

➔ staff Table

```
create table staff(staff_id int PRIMARY KEY,unit_no int, name varchar(50), occupation varchar(50), salary int, dob date,doj date, FOREIGN KEY(unit_no) references unit(unit_no));
```

➔ fee table

```
create table fee(rcpt_id int PRIMARY KEY, srn varchar(50), amount int, year year, FOREIGN KEY(srn) references student(srn) ON DELETE CASCADE);

alter table fee add column type varchar(50);
```

➔ lg (local guardian) table

```
create table lg(srn varchar(50), start_date date, end_date date, dependent_id int,PRIMARY KEY(srn,dependent_id), FOREIGN KEY (srn) references student(srn) on delete cascade, FOREIGN KEY (dependent_id) references dependent(dependent_id));

alter table lg add column duration int;
```

6. QUERIES WITH OUTPUT SCREENSHOTS

1) How many units in Basavanagudi have capacity greater than 120?

SELECT COUNT(unit_no) FROM unit WHERE capacity>120 and location LIKE "Basavanagudi";

Showing rows 0 - 7 (8 total, Query took 0.0017 seconds.)

```
SELECT * FROM `unit`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	unit_no	location	capacity
Edit Copy Delete	1	Jayanagar	150
Edit Copy Delete	2	Girinagar	200
Edit Copy Delete	3	Basavanagudi	100
Edit Copy Delete	4	JP Nagar	50
Edit Copy Delete	5	Jayanagar	70
Edit Copy Delete	6	JP Nagar	60
Edit Copy Delete	7	Jayanagar	50
Edit Copy Delete	8	Basavanagudi	155

OUTPUT:

Your SQL query has been executed successfully.

```
SELECT COUNT(unit_no) FROM unit WHERE capacity>120 and location LIKE "Basavanagudi";
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Extra options

COUNT(unit_no)
1

2) Calculate the average salary per occupation from lowest to highest.

SELECT AVG(salary),occupation FROM Staff GROUP BY occupation ORDER BY AVG(salary) ASC;

```
SELECT * FROM `staff`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	staff_id	unit_no	name	occupation	salary	dob	doj
Edit Copy Delete	1001	1	Amit	Manager	75000	1990-05-01	2015-06-01
Edit Copy Delete	1002	1	Rahul	Assistant Manager	60000	1995-02-14	2020-02-01
Edit Copy Delete	1003	2	Priya	Housekeeper	30000	1988-11-20	2010-06-01
Edit Copy Delete	1004	2	Suresh	Security Guard	25000	1992-09-10	2015-03-01
Edit Copy Delete	1005	3	Shubhangi	Caterer	40000	1985-06-12	2012-08-01
Edit Copy Delete	1006	3	Anjali	Chef	50000	1991-04-25	2017-01-01
Edit Copy Delete	1007	4	Shivam	Waiter	20000	1998-08-18	2021-02-01
Edit Copy Delete	1008	4	Aryan	Receptionist	35000	1994-12-31	2018-06-01
Edit Copy Delete	1009	1	Anita	Manager	75000	1989-09-21	2015-06-01
Edit Copy Delete	1010	1	Kumar	Assistant Manager	60000	1994-01-05	2020-02-01
Edit Copy Delete	1011	2	Jaya	Housekeeper	30000	1991-06-10	2010-06-01
Edit Copy Delete	1012	2	Akash	Security Guard	25000	1995-11-25	2015-03-01
Edit Copy Delete	1013	3	Sakshi	Caterer	40000	1986-12-29	2012-08-01
Edit Copy Delete	1014	3	Nitin	Chef	50000	1992-03-16	2017-01-01
Edit Copy Delete	1015	4	Rajesh	Waiter	20000	1999-05-27	2021-02-01
Edit Copy Delete	1016	4	Aman	Receptionist	35000	1993-08-04	2018-06-01
Edit Copy Delete	1017	1	Kavita	Manager	75000	1990-07-15	2015-06-01
Edit Copy Delete	1018	1	Mohit	Assistant Manager	60000	1996-04-11	2020-02-01
Edit Copy Delete	1019	2	Riya	Housekeeper	30000	1989-03-23	2010-06-01
Edit Copy Delete	1020	2	Aditya	Security Guard	25000	1994-02-08	2015-03-01

OUTPUT:

Showing rows 0 - 7 (8 total, Query took 0.0016 seconds.)

```
SELECT AVG(salary),occupation FROM Staff GROUP BY occupation ORDER BY AVG(salary) ASC;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

Extra options

	AVG(salary) ▲ 1	occupation
Edit Copy Delete	20000.0000	Waiter
Edit Copy Delete	25000.0000	Security Guard
Edit Copy Delete	30000.0000	Housekeeper
Edit Copy Delete	35000.0000	Receptionist
Edit Copy Delete	40000.0000	Caterer
Edit Copy Delete	50000.0000	Chef
Edit Copy Delete	60000.0000	Assistant Manager
Edit Copy Delete	75000.0000	Manager

3) **Display student details like name,srn,semester who were born between 2000 and 2001.**

SELECT student.name,student.srn,student.semester FROM student WHERE DOB BETWEEN "2000-01-01" AND "2001-12-31";

Showing rows 0 - 21 (22 total, Query took 0.0011 seconds.)

```
SELECT * FROM `student`
```

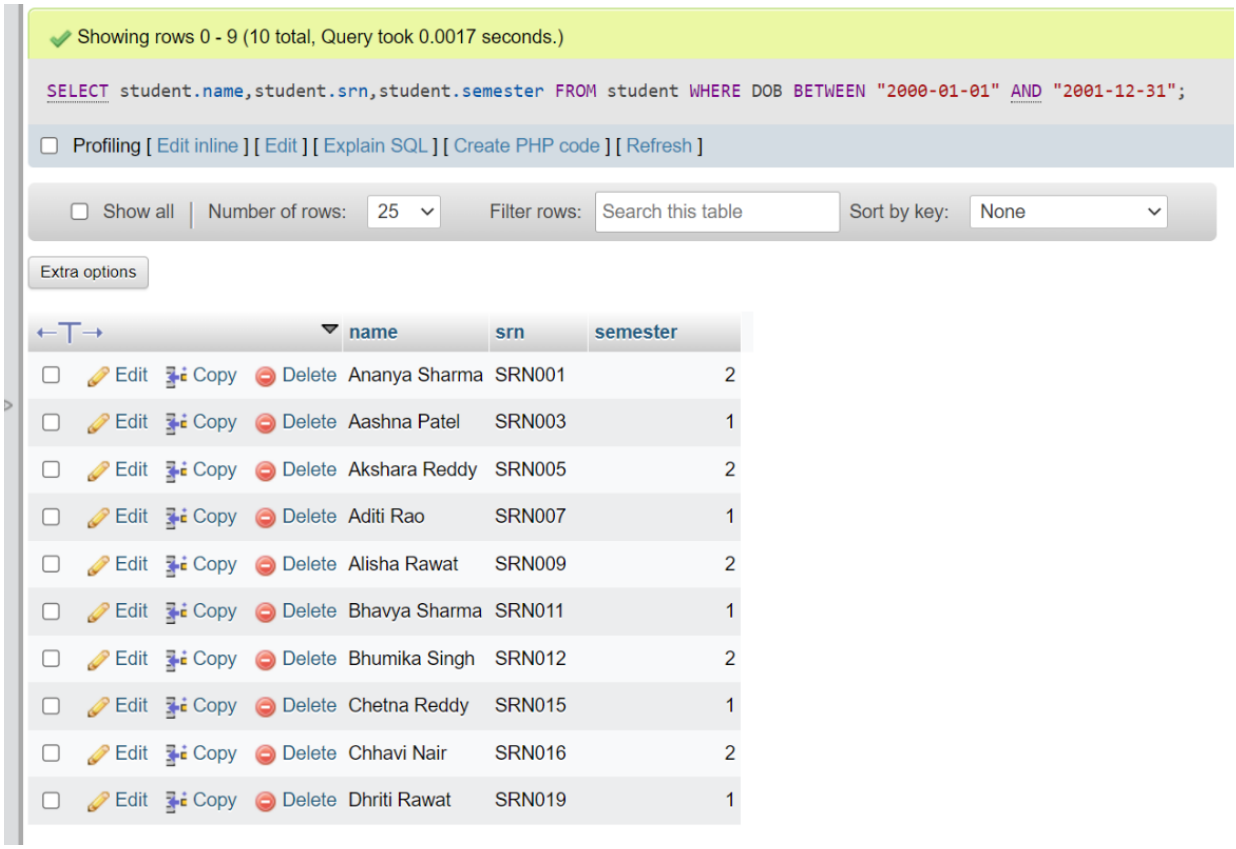
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	room_no	srn	name	semester	phone	address	unit_no	dob
Edit Copy Delete	101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01
Edit Copy Delete	302	SRN002	Aarushi Singh	3	8765432109	Mumbai	1	1999-02-02
Edit Copy Delete	303	SRN003	Aashna Patel	1	7654321098	Ahmedabad	2	2001-03-03
Edit Copy Delete	204	SRN004	Anjali Gupta	4	6543210987	Jaipur	3	1998-04-04
Edit Copy Delete	5	SRN005	Akshara Reddy	2	5432109876	Hyderabad	2	2000-05-05
Edit Copy Delete	106	SRN006	Anjana Nair	3	4321098765	Bangalore	1	1999-06-06
Edit Copy Delete	107	SRN007	Aditi Rao	1	3210987654	Chennai	3	2001-07-07
Edit Copy Delete	108	SRN008	Aarohi Desai	4	2109876543	Pune	2	1998-08-08
Edit Copy Delete	209	SRN009	Alisha Rawat	2	1098765432	Kolkata	2	2000-09-09
Edit Copy Delete	210	SRN010	Aanya Verma	3	9876543210	Lucknow	3	1999-10-10
Edit Copy Delete	311	SRN011	Bhavya Sharma	1	1234567890	Delhi	4	2001-11-11
Edit Copy Delete	2	SRN012	Bhumika Singh	2	2345678901	Mumbai	4	2000-12-12
Edit Copy Delete	123	SRN013	Bhavana Patel	3	3456789012	Ahmedabad	4	1999-01-13
Edit Copy Delete	214	SRN014	Bhavika Gupta	4	4567890123	Jaipur	2	1998-02-14
Edit Copy Delete	203	SRN015	Chetna Reddy	1	5678901234	Hyderabad	1	2001-03-15
Edit Copy Delete	206	SRN016	Chhavi Nair	2	6789012345	Bangalore	3	2000-04-16
Edit Copy Delete	7	SRN017	Chitra Rao	3	7890123456	Chennai	4	1999-05-17
Edit Copy Delete	108	SRN018	Charu Desai	4	8901234567	Pune	2	1998-06-18
Edit Copy Delete	109	SRN019	Dhriti Rawat	1	9012345678	Kolkata	1	2001-07-19
Edit Copy Delete	303	SRN020	Deepti Verma	3	1122334455	Allahabad	3	1999-08-20
Edit Copy Delete	15	SRN023	Dev	2	124563215	Hassan	1	1999-02-23
Edit Copy Delete	132	SRN_220	Ritu	4	12345678	hubbli	3	2002-02-02

OUTPUT:



Showing rows 0 - 9 (10 total, Query took 0.0017 seconds.)

```
SELECT student.name,student.srn,student.semester FROM student WHERE DOB BETWEEN "2000-01-01" AND "2001-12-31";
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	name	srn	semester
Edit Copy Delete	Ananya Sharma	SRN001	2
Edit Copy Delete	Aashna Patel	SRN003	1
Edit Copy Delete	Akshara Reddy	SRN005	2
Edit Copy Delete	Aditi Rao	SRN007	1
Edit Copy Delete	Alisha Rawat	SRN009	2
Edit Copy Delete	Bhavya Sharma	SRN011	1
Edit Copy Delete	Bhumika Singh	SRN012	2
Edit Copy Delete	Chetna Reddy	SRN015	1
Edit Copy Delete	Chhavi Nair	SRN016	2
Edit Copy Delete	Dhriti Rawat	SRN019	1

4) Who has paid the fees by NEFT or cash?

SELECT student.srn,student.name from student,fee where type LIKE "NEFT" OR "CASH";

Showing rows 0 - 21 (22 total, Query took 0.0011 seconds.)

```
SELECT * FROM `student`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	room_no	srn	name	semester	phone	address	unit_no	dob
Edit Copy Delete	101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01
Edit Copy Delete	302	SRN002	Aarushi Singh	3	8765432109	Mumbai	1	1999-02-02
Edit Copy Delete	303	SRN003	Aashna Patel	1	7654321098	Ahmedabad	2	2001-03-03
Edit Copy Delete	204	SRN004	Anjali Gupta	4	6543210987	Jaipur	3	1998-04-04
Edit Copy Delete	5	SRN005	Akshara Reddy	2	5432109876	Hyderabad	2	2000-05-05
Edit Copy Delete	106	SRN006	Anjana Nair	3	4321098765	Bangalore	1	1999-06-06
Edit Copy Delete	107	SRN007	Aditi Rao	1	3210987654	Chennai	3	2001-07-07
Edit Copy Delete	108	SRN008	Aarohi Desai	4	2109876543	Pune	2	1998-08-08
Edit Copy Delete	209	SRN009	Alisha Rawat	2	1098765432	Kolkata	2	2000-09-09
Edit Copy Delete	210	SRN010	Aanya Verma	3	9876543210	Lucknow	3	1999-10-10
Edit Copy Delete	311	SRN011	Bhavya Sharma	1	1234567890	Delhi	4	2001-11-11
Edit Copy Delete	2	SRN012	Bhumika Singh	2	2345678901	Mumbai	4	2000-12-12
Edit Copy Delete	123	SRN013	Bhavana Patel	3	3456789012	Ahmedabad	4	1999-01-13
Edit Copy Delete	214	SRN014	Bhavika Gupta	4	4567890123	Jaipur	2	1998-02-14
Edit Copy Delete	203	SRN015	Chetna Reddy	1	5678901234	Hyderabad	1	2001-03-15
Edit Copy Delete	206	SRN016	Chhavi Nair	2	6789012345	Bangalore	3	2000-04-16
Edit Copy Delete	7	SRN017	Chitra Rao	3	7890123456	Chennai	4	1999-05-17
Edit Copy Delete	108	SRN018	Charu Desai	4	8901234567	Pune	2	1998-06-18
Edit Copy Delete	109	SRN019	Dhriti Rawat	1	9012345678	Kolkata	1	2001-07-19
Edit Copy Delete	303	SRN020	Deepti Verma	3	1122334455	Allahabad	3	1999-08-20
Edit Copy Delete	15	SRN023	Dev	2	124563215	Hassan	1	1999-02-23
Edit Copy Delete	132	SRN_220	Ritu	4	12345678	hubbli	3	2002-02-02

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 19 (20 total, Query took 0.0021 seconds.)

```
SELECT * FROM `fee`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

+ Options

	rcpt_id	srn	amount	year	type
Edit Copy Delete	1	SRN001	5000	2022	UPI
Edit Copy Delete	2	SRN002	6000	2022	NEFT
Edit Copy Delete	3	SRN003	7000	2022	NEFT
Edit Copy Delete	4	SRN004	8000	2022	NEFT
Edit Copy Delete	5	SRN005	9000	2020	CASH
Edit Copy Delete	6	SRN006	10000	2022	CASH
Edit Copy Delete	7	SRN007	11000	2021	UPI
Edit Copy Delete	8	SRN008	12000	2022	CASH
Edit Copy Delete	9	SRN009	13000	2021	CHEQUE
Edit Copy Delete	10	SRN010	14000	2022	UPI
Edit Copy Delete	11	SRN011	15000	2022	NEFT
Edit Copy Delete	12	SRN012	16000	2022	CHEQUE
Edit Copy Delete	13	SRN013	17000	2020	CHEQUE
Edit Copy Delete	14	SRN014	18000	2021	UPI
Edit Copy Delete	15	SRN015	19000	2022	CASH
Edit Copy Delete	16	SRN016	20000	2022	NEFT
Edit Copy Delete	17	SRN017	21000	2022	CHEQUE
Edit Copy Delete	18	SRN018	22000	2021	CASH
Edit Copy Delete	19	SRN019	23000	2022	UPI
Edit Copy Delete	20	SRN020	24000	2020	NEFT

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

OUTPUT:

```
SELECT student.srn,student.name from student,fee where type LIKE "NEFT" OR "CASH";
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

1 > >> | Show all | Number of rows: 25 Filter rows: Search this table

Extra options

	srn	name
Edit Copy Delete	SRN001	Ananya Sharma
Edit Copy Delete	SRN002	Aarushi Singh
Edit Copy Delete	SRN003	Aashna Patel
Edit Copy Delete	SRN004	Anjali Gupta
Edit Copy Delete	SRN005	Akshara Reddy
Edit Copy Delete	SRN006	Anjana Nair
Edit Copy Delete	SRN007	Aditi Rao
Edit Copy Delete	SRN008	Aarohi Desai
Edit Copy Delete	SRN009	Alisha Rawat
Edit Copy Delete	SRN010	Aanya Verma
Edit Copy Delete	SRN011	Bhavya Sharma
Edit Copy Delete	SRN012	Bhumika Singh
Edit Copy Delete	SRN013	Bhavana Patel
Edit Copy Delete	SRN014	Bhavika Gupta
Edit Copy Delete	SRN015	Chetna Reddy
Edit Copy Delete	SRN016	Chhavi Nair
Edit Copy Delete	SRN017	Chitra Rao

Console

Edit	Copy	Delete	SRN018	Charu Desai
Edit	Copy	Delete	SRN019	Dhriti Rawat
Edit	Copy	Delete	SRN020	Deepti Verma
Edit	Copy	Delete	SRN001	Ananya Sharma
Edit	Copy	Delete	SRN002	Aarushi Singh
Edit	Copy	Delete	SRN003	Aashna Patel
Edit	Copy	Delete	SRN004	Anjali Gupta
Edit	Copy	Delete	SRN005	Akshara Reddy
Edit	Copy	Delete	SRN006	Anjana Nair
Edit	Copy	Delete	SRN007	Aditi Rao
Edit	Copy	Delete	SRN008	Aarohi Desai
Edit	Copy	Delete	SRN009	Alisha Rawat
Edit	Copy	Delete	SRN010	Aanya Verma

PES UNIVERSITY, BANGALORE
Department of Computer Science and Engineering

5) Display the student's srn who has maximum number of dependents

```
SELECT srn, COUNT(*) AS count
FROM dependent
GROUP BY srn
HAVING COUNT(*) = (
    SELECT MAX(count) FROM (
        SELECT COUNT(*) AS count FROM dependent GROUP BY srn ) AS counts)
```

Showing rows 0 - 13 (14 total, Query took 0.0015 seconds.)

```
SELECT * FROM `dependent`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	dependent_id	dname	relation	phone	address	dob	srn_student
Edit Copy Delete	1	Radhika Sharma	Mother	9876543210	Delhi	1965-01-01	SRN001
Edit Copy Delete	2	Nitya Singh	Sister	8765432109	Mumbai	1996-02-02	SRN002
Edit Copy Delete	3	Divya Patel	Sister	7654321098	Ahmedabad	1994-03-03	SRN003
Edit Copy Delete	4	Anushka Gupta	Aunt	6543210987	Jaipur	1960-04-04	SRN004
Edit Copy Delete	5	Bhaskar Reddy	Father	5432109876	Hyderabad	1955-05-05	SRN005
Edit Copy Delete	6	Aaradhya Nair	Sister	4321098765	Bangalore	1994-06-06	SRN006
Edit Copy Delete	7	Sakshi Rao	Sister	3210987654	Chennai	2000-07-07	SRN007
Edit Copy Delete	8	Sanjay Desai	Brother	2109876543	Pune	1992-08-08	SRN008
Edit Copy Delete	9	Ishita Rawat	Aunt	1098765432	Kolkata	1980-09-09	SRN009
Edit Copy Delete	10	Sana Verma	Sister	9876543210	Lucknow	1994-10-10	SRN010
Edit Copy Delete	12	Nithesh Singh	Brother	2345678901	Mumbai	1997-10-12	SRN002
Edit Copy Delete	13	Nagesh Sharma	Father	955633214	Delhi	1960-02-02	SRN001
Edit Copy Delete	14	Naresh Sharma	Brother	7752234236	Delhi	1985-08-20	SRN001
Edit Copy Delete	15	Niyati Singh	Sister	8765432189	Mumbai	1998-02-02	SRN002

OUTPUT:

Your SQL query has been executed successfully.

```
SELECT srn, COUNT(*) AS count FROM dependent GROUP BY srn HAVING COUNT(*) = ( SELECT MAX(count) FROM ( SELECT COUNT(*) AS count FROM dependent GROUP BY srn ) AS counts );
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

+ Options

srn	count
SRN001	3

6) Display the Student's srn who has minimum number of dependents

```
SELECT srn, COUNT(*) AS count
FROM dependent
GROUP BY srn
HAVING COUNT(*) = (
   SELECT MIN(count) FROM ( SELECT COUNT(*) AS count FROM dependent
GROUP BY srn) AS counts)
```

Showing rows 0 - 13 (14 total, Query took 0.0015 seconds.)

```
SELECT * FROM `dependent`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	dependent_id	dname	relation	phone	address	dob	srn_student
Edit Copy Delete	1	Radhika Sharma	Mother	9876543210	Delhi	1965-01-01	SRN001
Edit Copy Delete	2	Nitya Singh	Sister	8765432109	Mumbai	1996-02-02	SRN002
Edit Copy Delete	3	Divya Patel	Sister	7654321098	Ahmedabad	1994-03-03	SRN003
Edit Copy Delete	4	Anushka Gupta	Aunt	6543210987	Jaipur	1960-04-04	SRN004
Edit Copy Delete	5	Bhaskar Reddy	Father	5432109876	Hyderabad	1955-05-05	SRN005
Edit Copy Delete	6	Aaradhya Nair	Sister	4321098765	Bangalore	1994-06-06	SRN006
Edit Copy Delete	7	Sakshi Rao	Sister	3210987654	Chennai	2000-07-07	SRN007
Edit Copy Delete	8	Sanjay Desai	Brother	2109876543	Pune	1992-08-08	SRN008
Edit Copy Delete	9	Ishita Rawat	Aunt	1098765432	Kolkata	1980-09-09	SRN009
Edit Copy Delete	10	Sana Verma	Sister	9876543210	Lucknow	1994-10-10	SRN010
Edit Copy Delete	12	Nithesh Singh	Brother	2345678901	Mumbai	1997-10-12	SRN002
Edit Copy Delete	13	Nagesh Sharma	Father	955633214	Delhi	1960-02-02	SRN001
Edit Copy Delete	14	Naresh Sharma	Brother	7752234236	Delhi	1985-08-20	SRN001
Edit Copy Delete	15	Niyati Singh	Sister	8765432189	Mumbai	1998-02-02	SRN002

OUTPUT:

Showing rows 0 - 7 (8 total, Query took 0.0032 seconds.)

```
SELECT srn, COUNT(*) AS count FROM dependent GROUP BY srn HAVING COUNT(*) = ( SELECT MIN(count) FROM ( SELECT COUNT(*) AS count FROM dependent GROUP BY srn ) AS counts );
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

+ Options

srn	count
SRN003	1
SRN004	1
SRN005	1
SRN006	1
SRN007	1
SRN008	1
SRN009	1
SRN010	1

7) Get the details of dependents of the student with srn 001.

SELECT * FROM (student AS S LEFT OUTER JOIN dependent AS D ON S.srn = D.srn) WHERE S.srn LIKE "SRN001";

OUTPUT TABLE:

Showing rows 0 - 2 (3 total, Query took 0.0022 seconds.)

```
SELECT * FROM (student AS S LEFT OUTER JOIN dependent AS D ON S.srn = D.srn) WHERE S.srn LIKE "SRN001";
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

+ Options

room_no	srn	name	semester	phone	address	unit_no	dob	dependent_id	name	relation	phone	address	dob	srn
101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01	1	Radhika Sharma	Mother	9876543210	Delhi	1965-01-01	SRN001
101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01	13	Nagesh Sharma	Father	955633214	Delhi	1960-02-02	SRN001
101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01	14	Naresh Sharma	Brother	7752234236	Delhi	1985-08-20	SRN001

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 21 (22 total, Query took 0.0011 seconds.)

```
SELECT * FROM `student`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	room_no	srn	name	semester	phone	address	unit_no	dob
Edit Copy Delete	101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01
Edit Copy Delete	302	SRN002	Aarushi Singh	3	8765432109	Mumbai	1	1999-02-02
Edit Copy Delete	303	SRN003	Aashna Patel	1	7654321098	Ahmedabad	2	2001-03-03
Edit Copy Delete	204	SRN004	Anjali Gupta	4	6543210987	Jaipur	3	1998-04-04
Edit Copy Delete	5	SRN005	Akshara Reddy	2	5432109876	Hyderabad	2	2000-05-05
Edit Copy Delete	106	SRN006	Anjana Nair	3	4321098765	Bangalore	1	1999-06-06
Edit Copy Delete	107	SRN007	Aditi Rao	1	3210987654	Chennai	3	2001-07-07
Edit Copy Delete	108	SRN008	Aarohi Desai	4	2109876543	Pune	2	1998-08-08
Edit Copy Delete	209	SRN009	Alisha Rawat	2	1098765432	Kolkata	2	2000-09-09
Edit Copy Delete	210	SRN010	Aanya Verma	3	9876543210	Lucknow	3	1999-10-10
Edit Copy Delete	311	SRN011	Bhavya Sharma	1	1234567890	Delhi	4	2001-11-11
Edit Copy Delete	2	SRN012	Bhumika Singh	2	2345678901	Mumbai	4	2000-12-12
Edit Copy Delete	123	SRN013	Bhavana Patel	3	3456789012	Ahmedabad	4	1999-01-13
Edit Copy Delete	214	SRN014	Bhavika Gupta	4	4567890123	Jaipur	2	1998-02-14
Edit Copy Delete	203	SRN015	Chetna Reddy	1	5678901234	Hyderabad	1	2001-03-15
Edit Copy Delete	206	SRN016	Chhavi Nair	2	6789012345	Bangalore	3	2000-04-16
Edit Copy Delete	7	SRN017	Chitra Rao	3	7890123456	Chennai	4	1999-05-17
Edit Copy Delete	108	SRN018	Charu Desai	4	8901234567	Pune	2	1998-06-18
Edit Copy Delete	109	SRN019	Dhriti Rawat	1	9012345678	Kolkata	1	2001-07-19
Edit Copy Delete	303	SRN020	Deepti Verma	3	1122334455	Allahabad	3	1999-08-20
Edit Copy Delete	15	SRN023	Dev	2	124563215	Hassan	1	1999-02-23
Edit Copy Delete	132	SRN_220	Ritu	4	12345678	hubbli	3	2002-02-02

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 13 (14 total, Query took 0.0015 seconds.)

```
SELECT * FROM `dependent`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	dependent_id	dname	relation	phone	address	dob	srn_student
Edit Copy Delete	1	Radhika Sharma	Mother	9876543210	Delhi	1965-01-01	SRN001
Edit Copy Delete	2	Nitya Singh	Sister	8765432109	Mumbai	1996-02-02	SRN002
Edit Copy Delete	3	Divya Patel	Sister	7654321098	Ahmedabad	1994-03-03	SRN003
Edit Copy Delete	4	Anushka Gupta	Aunt	6543210987	Jaipur	1960-04-04	SRN004
Edit Copy Delete	5	Bhaskar Reddy	Father	5432109876	Hyderabad	1955-05-05	SRN005
Edit Copy Delete	6	Aaradhya Nair	Sister	4321098765	Bangalore	1994-06-06	SRN006
Edit Copy Delete	7	Sakshi Rao	Sister	3210987654	Chennai	2000-07-07	SRN007
Edit Copy Delete	8	Sanjay Desai	Brother	2109876543	Pune	1992-08-08	SRN008
Edit Copy Delete	9	Ishita Rawat	Aunt	1098765432	Kolkata	1980-09-09	SRN009
Edit Copy Delete	10	Sana Verma	Sister	9876543210	Lucknow	1994-10-10	SRN010
Edit Copy Delete	12	Nithesh Singh	Brother	2345678901	Mumbai	1997-10-12	SRN002
Edit Copy Delete	13	Nagesh Sharma	Father	955633214	Delhi	1960-02-02	SRN001
Edit Copy Delete	14	Naresh Sharma	Brother	7752234236	Delhi	1985-08-20	SRN001
Edit Copy Delete	15	Niyati Singh	Sister	8765432189	Mumbai	1998-02-02	SRN002

8) Get the details of a student who has a dependent “Sana Verma”.

```
SELECT name ,srn,room_no,semester
FROM (dependent AS D RIGHT OUTER JOIN  student AS S
ON S.srn = D.srn_student) WHERE D.dname LIKE "Sana Verma";
```

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 21 (22 total, Query took 0.0011 seconds.)

```
SELECT * FROM `student`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	room_no	srn	name	semester	phone	address	unit_no	dob
Edit Copy Delete	101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01
Edit Copy Delete	302	SRN002	Aarushi Singh	3	8765432109	Mumbai	1	1999-02-02
Edit Copy Delete	303	SRN003	Aashna Patel	1	7654321098	Ahmedabad	2	2001-03-03
Edit Copy Delete	204	SRN004	Anjali Gupta	4	6543210987	Jaipur	3	1998-04-04
Edit Copy Delete	5	SRN005	Akshara Reddy	2	5432109876	Hyderabad	2	2000-05-05
Edit Copy Delete	106	SRN006	Anjana Nair	3	4321098765	Bangalore	1	1999-06-06
Edit Copy Delete	107	SRN007	Aditi Rao	1	3210987654	Chennai	3	2001-07-07
Edit Copy Delete	108	SRN008	Aarohi Desai	4	2109876543	Pune	2	1998-08-08
Edit Copy Delete	209	SRN009	Alisha Rawat	2	1098765432	Kolkata	2	2000-09-09
Edit Copy Delete	210	SRN010	Aanya Verma	3	9876543210	Lucknow	3	1999-10-10
Edit Copy Delete	311	SRN011	Bhavya Sharma	1	1234567890	Delhi	4	2001-11-11
Edit Copy Delete	2	SRN012	Bhumika Singh	2	2345678901	Mumbai	4	2000-12-12
Edit Copy Delete	123	SRN013	Bhavana Patel	3	3456789012	Ahmedabad	4	1999-01-13
Edit Copy Delete	214	SRN014	Bhavika Gupta	4	4567890123	Jaipur	2	1998-02-14
Edit Copy Delete	203	SRN015	Chetna Reddy	1	5678901234	Hyderabad	1	2001-03-15
Edit Copy Delete	206	SRN016	Chhavi Nair	2	6789012345	Bangalore	3	2000-04-16
Edit Copy Delete	7	SRN017	Chitra Rao	3	7890123456	Chennai	4	1999-05-17
Edit Copy Delete	108	SRN018	Charu Desai	4	8901234567	Pune	2	1998-06-18
Edit Copy Delete	109	SRN019	Dhriti Rawat	1	9012345678	Kolkata	1	2001-07-19
Edit Copy Delete	303	SRN020	Deepti Verma	3	1122334455	Allahabad	3	1999-08-20
Edit Copy Delete	15	SRN023	Dev	2	124563215	Hassan	1	1999-02-23
Edit Copy Delete	132	SRN_220	Ritu	4	12345678	hubbli	3	2002-02-02

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 13 (14 total, Query took 0.0015 seconds.)

```
SELECT * FROM `dependent`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	dependent_id	dname	relation	phone	address	dob	srn_student
Edit Copy Delete	1	Radhika Sharma	Mother	9876543210	Delhi	1965-01-01	SRN001
Edit Copy Delete	2	Nitya Singh	Sister	8765432109	Mumbai	1996-02-02	SRN002
Edit Copy Delete	3	Divya Patel	Sister	7654321098	Ahmedabad	1994-03-03	SRN003
Edit Copy Delete	4	Anushka Gupta	Aunt	6543210987	Jaipur	1960-04-04	SRN004
Edit Copy Delete	5	Bhaskar Reddy	Father	5432109876	Hyderabad	1955-05-05	SRN005
Edit Copy Delete	6	Aaradhya Nair	Sister	4321098765	Bangalore	1994-06-06	SRN006
Edit Copy Delete	7	Sakshi Rao	Sister	3210987654	Chennai	2000-07-07	SRN007
Edit Copy Delete	8	Sanjay Desai	Brother	2109876543	Pune	1992-08-08	SRN008
Edit Copy Delete	9	Ishita Rawat	Aunt	1098765432	Kolkata	1980-09-09	SRN009
Edit Copy Delete	10	Sana Verma	Sister	9876543210	Lucknow	1994-10-10	SRN010
Edit Copy Delete	12	Nithesh Singh	Brother	2345678901	Mumbai	1997-10-12	SRN002
Edit Copy Delete	13	Nagesh Sharma	Father	955633214	Delhi	1960-02-02	SRN001
Edit Copy Delete	14	Naresh Sharma	Brother	7752234236	Delhi	1985-08-20	SRN001
Edit Copy Delete	15	Niyati Singh	Sister	8765432189	Mumbai	1998-02-02	SRN002

OUTPUT:

Showing rows 0 - 0 (1 total, Query took 0.0019 seconds.)

```
SELECT name ,srn,room_no,semester FROM (dependent AS D RIGHT OUTER JOIN student AS S ON S.srn = D.srn_student) WHERE D.dname LIKE "Sana Verma"
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

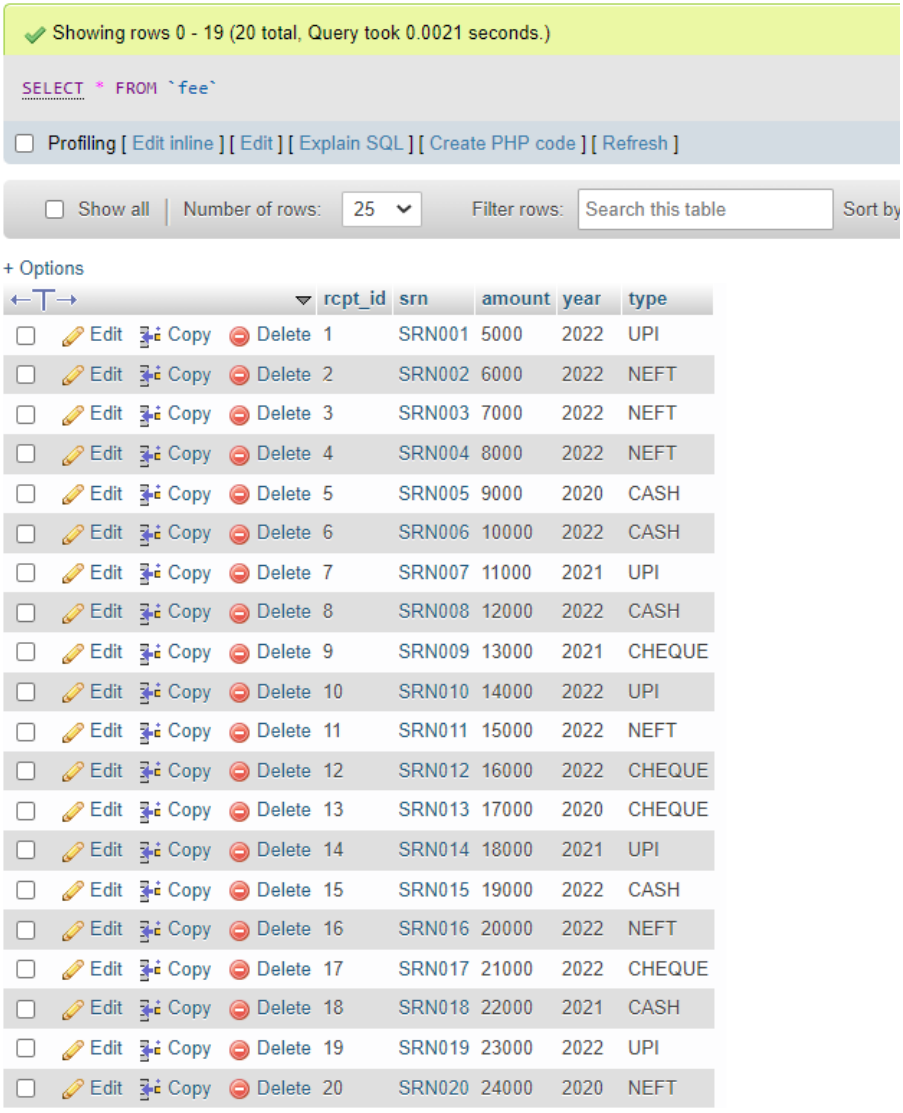
Show all | Number of rows: 25 Filter rows: Search this table

+ Options

name	srn	room_no	semester
Aanya Verma	SRN010	210	3

10) Get the details of the student who has last paid the fees in 2021.

SELECT name, srn, semester FROM (student NATURAL JOIN fee) WHERE fee.year=2021;



Showing rows 0 - 19 (20 total, Query took 0.0021 seconds.)

```
SELECT * FROM `fee`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by

+ Options

	rcpt_id	srn	amount	year	type
Edit Copy Delete	1	SRN001	5000	2022	UPI
Edit Copy Delete	2	SRN002	6000	2022	NEFT
Edit Copy Delete	3	SRN003	7000	2022	NEFT
Edit Copy Delete	4	SRN004	8000	2022	NEFT
Edit Copy Delete	5	SRN005	9000	2020	CASH
Edit Copy Delete	6	SRN006	10000	2022	CASH
Edit Copy Delete	7	SRN007	11000	2021	UPI
Edit Copy Delete	8	SRN008	12000	2022	CASH
Edit Copy Delete	9	SRN009	13000	2021	CHEQUE
Edit Copy Delete	10	SRN010	14000	2022	UPI
Edit Copy Delete	11	SRN011	15000	2022	NEFT
Edit Copy Delete	12	SRN012	16000	2022	CHEQUE
Edit Copy Delete	13	SRN013	17000	2020	CHEQUE
Edit Copy Delete	14	SRN014	18000	2021	UPI
Edit Copy Delete	15	SRN015	19000	2022	CASH
Edit Copy Delete	16	SRN016	20000	2022	NEFT
Edit Copy Delete	17	SRN017	21000	2022	CHEQUE
Edit Copy Delete	18	SRN018	22000	2021	CASH
Edit Copy Delete	19	SRN019	23000	2022	UPI
Edit Copy Delete	20	SRN020	24000	2020	NEFT

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 21 (22 total, Query took 0.0011 seconds.)

```
SELECT * FROM `student`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	room_no	srn	name	semester	phone	address	unit_no	dob
Edit Copy Delete	101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01
Edit Copy Delete	302	SRN002	Aarushi Singh	3	8765432109	Mumbai	1	1999-02-02
Edit Copy Delete	303	SRN003	Aashna Patel	1	7654321098	Ahmedabad	2	2001-03-03
Edit Copy Delete	204	SRN004	Anjali Gupta	4	6543210987	Jaipur	3	1998-04-04
Edit Copy Delete	5	SRN005	Akshara Reddy	2	5432109876	Hyderabad	2	2000-05-05
Edit Copy Delete	106	SRN006	Anjana Nair	3	4321098765	Bangalore	1	1999-06-06
Edit Copy Delete	107	SRN007	Aditi Rao	1	3210987654	Chennai	3	2001-07-07
Edit Copy Delete	108	SRN008	Aarohi Desai	4	2109876543	Pune	2	1998-08-08
Edit Copy Delete	209	SRN009	Alisha Rawat	2	1098765432	Kolkata	2	2000-09-09
Edit Copy Delete	210	SRN010	Aanya Verma	3	9876543210	Lucknow	3	1999-10-10
Edit Copy Delete	311	SRN011	Bhavya Sharma	1	1234567890	Delhi	4	2001-11-11
Edit Copy Delete	2	SRN012	Bhumika Singh	2	2345678901	Mumbai	4	2000-12-12
Edit Copy Delete	123	SRN013	Bhavana Patel	3	3456789012	Ahmedabad	4	1999-01-13
Edit Copy Delete	214	SRN014	Bhavika Gupta	4	4567890123	Jaipur	2	1998-02-14
Edit Copy Delete	203	SRN015	Chetna Reddy	1	5678901234	Hyderabad	1	2001-03-15
Edit Copy Delete	206	SRN016	Chhavi Nair	2	6789012345	Bangalore	3	2000-04-16
Edit Copy Delete	7	SRN017	Chitra Rao	3	7890123456	Chennai	4	1999-05-17
Edit Copy Delete	108	SRN018	Charu Desai	4	8901234567	Pune	2	1998-06-18
Edit Copy Delete	109	SRN019	Dhriti Rawat	1	9012345678	Kolkata	1	2001-07-19
Edit Copy Delete	303	SRN020	Deepti Verma	3	1122334455	Allahabad	3	1999-08-20
Edit Copy Delete	15	SRN023	Dev	2	124563215	Hassan	1	1999-02-23
Edit Copy Delete	132	SRN_220	Ritu	4	12345678	hubbli	3	2002-02-02

OUTPUT:

Showing rows 0 - 3 (4 total, Query took 0.0013 seconds.)

```
SELECT name, srn, semester FROM (student NATURAL JOIN fee ) WHERE fee.year=2021;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

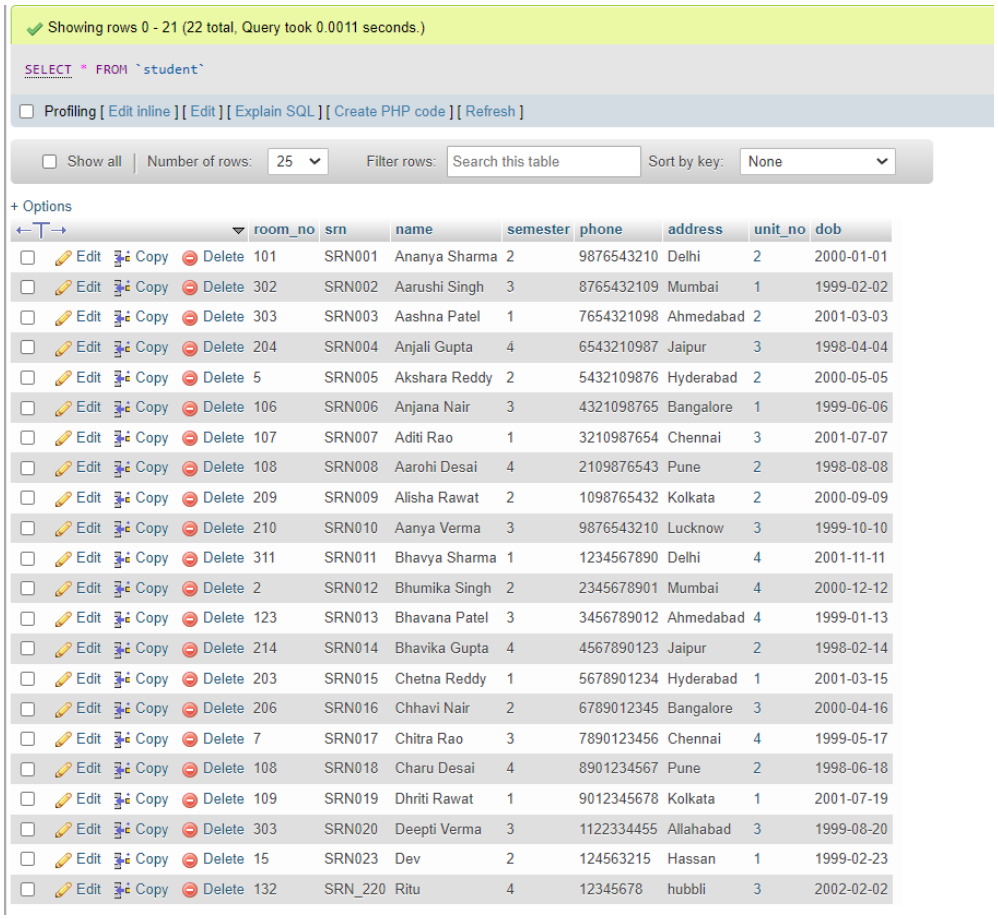
+ Options

name	srn	semester
Aditi Rao	SRN007	1
Alisha Rawat	SRN009	2
Bhavika Gupta	SRN014	4
Charu Desai	SRN018	4

11) Write a Function to calculate age of each student

```
DELIMITER $$
CREATE FUNCTION calc_age(dob date)
RETURNS int
DETERMINISTIC
BEGIN
DECLARE result int;
(SELECT DATE_FORMAT(FROM_DAYS(DATEDIFF(NOW(),dob)), '%Y')+0 as age) into result;
return result;
END;
$$
```

```
SELECT name, srn, calc_age(dob) AS age FROM student;
```



Showing rows 0 - 21 (22 total, Query took 0.0011 seconds.)

```
SELECT * FROM `student`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	room_no	srn	name	semester	phone	address	unit_no	dob
Edit Copy Delete	101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01
Edit Copy Delete	302	SRN002	Aarushi Singh	3	8765432109	Mumbai	1	1999-02-02
Edit Copy Delete	303	SRN003	Aashna Patel	1	7654321098	Ahmedabad	2	2001-03-03
Edit Copy Delete	204	SRN004	Anjali Gupta	4	6543210987	Jaipur	3	1998-04-04
Edit Copy Delete	5	SRN005	Akshara Reddy	2	5432109876	Hyderabad	2	2000-05-05
Edit Copy Delete	106	SRN006	Anjana Nair	3	4321098765	Bangalore	1	1999-06-06
Edit Copy Delete	107	SRN007	Aditi Rao	1	3210987654	Chennai	3	2001-07-07
Edit Copy Delete	108	SRN008	Aarohi Desai	4	2109876543	Pune	2	1998-08-08
Edit Copy Delete	209	SRN009	Alisha Rawat	2	1098765432	Kolkata	2	2000-09-09
Edit Copy Delete	210	SRN010	Aanya Verma	3	9876543210	Lucknow	3	1999-10-10
Edit Copy Delete	311	SRN011	Bhavya Sharma	1	1234567890	Delhi	4	2001-11-11
Edit Copy Delete	2	SRN012	Bhumika Singh	2	2345678901	Mumbai	4	2000-12-12
Edit Copy Delete	123	SRN013	Bhavana Patel	3	3456789012	Ahmedabad	4	1999-01-13
Edit Copy Delete	214	SRN014	Bhavika Gupta	4	4567890123	Jaipur	2	1998-02-14
Edit Copy Delete	203	SRN015	Chetna Reddy	1	5678901234	Hyderabad	1	2001-03-15
Edit Copy Delete	206	SRN016	Chhavi Nair	2	6789012345	Bangalore	3	2000-04-16
Edit Copy Delete	7	SRN017	Chitra Rao	3	7890123456	Chennai	4	1999-05-17
Edit Copy Delete	108	SRN018	Charu Desai	4	8901234567	Pune	2	1998-06-18
Edit Copy Delete	109	SRN019	Dhriti Rawat	1	9012345678	Kolkata	1	2001-07-19
Edit Copy Delete	303	SRN020	Deepti Verma	3	1122334455	Allahabad	3	1999-08-20
Edit Copy Delete	15	SRN023	Dev	2	124563215	Hassan	1	1999-02-23
Edit Copy Delete	132	SRN_220	Ritu	4	12345678	hubbli	3	2002-02-02

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 20 (21 total, Query took 0.0015 seconds.)

```
SELECT name, srn, calc_age(dob) AS age FROM student;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sor

+ Options

		name	srn	age
☐	Edit Copy Delete	Ananya Sharma	SRN001	23
☐	Edit Copy Delete	Aarushi Singh	SRN002	24
☐	Edit Copy Delete	Aashna Patel	SRN003	22
☐	Edit Copy Delete	Anjali Gupta	SRN004	25
☐	Edit Copy Delete	Akshara Reddy	SRN005	22
☐	Edit Copy Delete	Anjana Nair	SRN006	23
☐	Edit Copy Delete	Aditi Rao	SRN007	21
☐	Edit Copy Delete	Aarohi Desai	SRN008	24
☐	Edit Copy Delete	Alisha Rawat	SRN009	22
☐	Edit Copy Delete	Aanya Verma	SRN010	23
☐	Edit Copy Delete	Bhavya Sharma	SRN011	21
☐	Edit Copy Delete	Bhumika Singh	SRN012	22
☐	Edit Copy Delete	Bhavana Patel	SRN013	24
☐	Edit Copy Delete	Bhavika Gupta	SRN014	25
☐	Edit Copy Delete	Chetna Reddy	SRN015	22
☐	Edit Copy Delete	Chhavi Nair	SRN016	23
☐	Edit Copy Delete	Chitra Rao	SRN017	23
☐	Edit Copy Delete	Charu Desai	SRN018	24
☐	Edit Copy Delete	Dhriti Rawat	SRN019	21
☐	Edit Copy Delete	Deepti Verma	SRN020	23
☐	Edit Copy Delete	Dev	SRN023	24

PES UNIVERSITY, BANGALORE

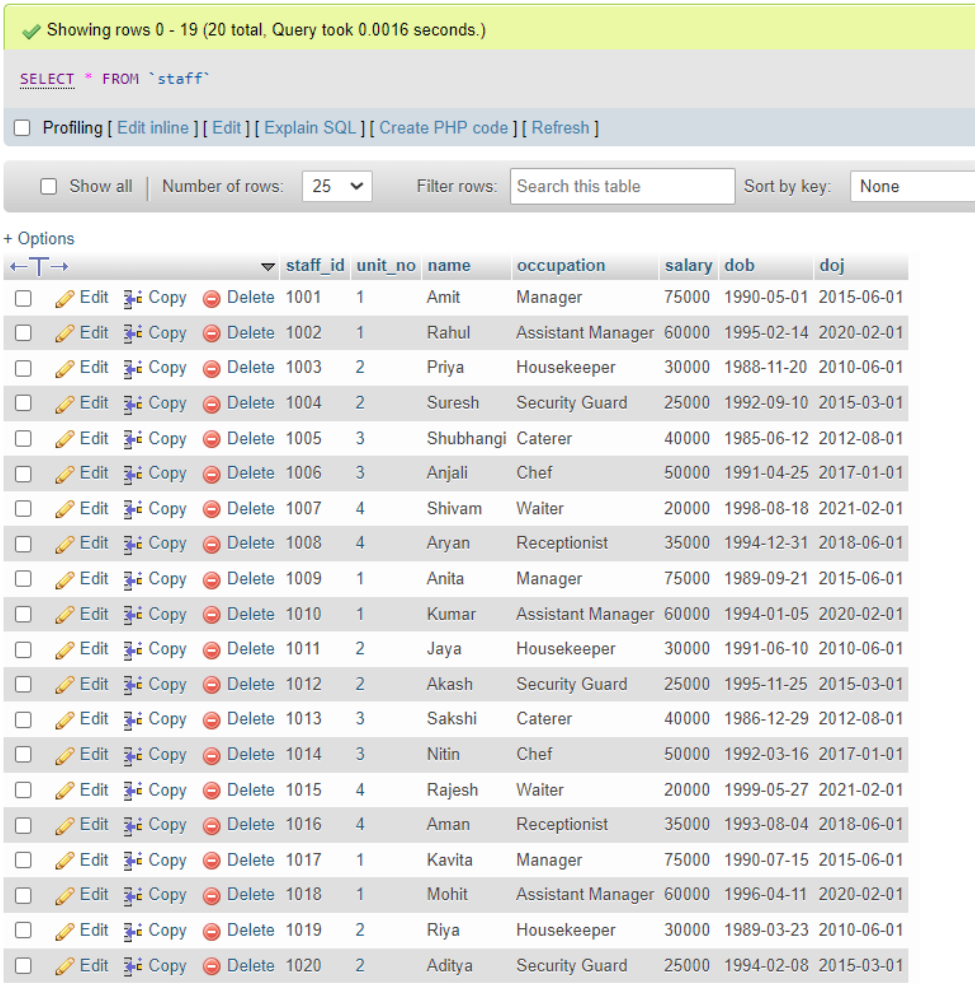
Department of Computer Science and Engineering

+ Options

				name	srn	age
☐	Edit	Copy	Delete	Ananya Sharma	SRN001	23
☐	Edit	Copy	Delete	Aarushi Singh	SRN002	24
☐	Edit	Copy	Delete	Aashna Patel	SRN003	22
☐	Edit	Copy	Delete	Anjali Gupta	SRN004	25
☐	Edit	Copy	Delete	Akshara Reddy	SRN005	22
☐	Edit	Copy	Delete	Anjana Nair	SRN006	23
☐	Edit	Copy	Delete	Aditi Rao	SRN007	21
☐	Edit	Copy	Delete	Aarohi Desai	SRN008	24
☐	Edit	Copy	Delete	Alisha Rawat	SRN009	22
☐	Edit	Copy	Delete	Aanya Verma	SRN010	23
☐	Edit	Copy	Delete	Bhavya Sharma	SRN011	21
☐	Edit	Copy	Delete	Bhumika Singh	SRN012	22
☐	Edit	Copy	Delete	Bhavana Patel	SRN013	24
☐	Edit	Copy	Delete	Bhavika Gupta	SRN014	25
☐	Edit	Copy	Delete	Chetna Reddy	SRN015	22
☐	Edit	Copy	Delete	Chhavi Nair	SRN016	23
☐	Edit	Copy	Delete	Chitra Rao	SRN017	23
☐	Edit	Copy	Delete	Charu Desai	SRN018	24
☐	Edit	Copy	Delete	Dhriti Rawat	SRN019	21
☐	Edit	Copy	Delete	Deepti Verma	SRN020	23
☐	Edit	Copy	Delete	Dev	SRN023	24

12) List the managers who have joined in the months of March and June.

```
SELECT staff_id, unit_no,name,occupation FROM staff
WHERE doj LIKE "_-03-01" AND "_-06-01"  UNION
SELECT staff_id, unit_no,name,occupation  FROM staff
WHERE occupation like "Manager";
```



Showing rows 0 - 19 (20 total, Query took 0.0016 seconds.)

```
SELECT * FROM `staff`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

+ Options

	staff_id	unit_no	name	occupation	salary	dob	doj
Edit Copy Delete	1001	1	Amit	Manager	75000	1990-05-01	2015-06-01
Edit Copy Delete	1002	1	Rahul	Assistant Manager	60000	1995-02-14	2020-02-01
Edit Copy Delete	1003	2	Priya	Housekeeper	30000	1988-11-20	2010-06-01
Edit Copy Delete	1004	2	Suresh	Security Guard	25000	1992-09-10	2015-03-01
Edit Copy Delete	1005	3	Shubhangi	Caterer	40000	1985-06-12	2012-08-01
Edit Copy Delete	1006	3	Anjali	Chef	50000	1991-04-25	2017-01-01
Edit Copy Delete	1007	4	Shivam	Waiter	20000	1998-08-18	2021-02-01
Edit Copy Delete	1008	4	Aryan	Receptionist	35000	1994-12-31	2018-06-01
Edit Copy Delete	1009	1	Anita	Manager	75000	1989-09-21	2015-06-01
Edit Copy Delete	1010	1	Kumar	Assistant Manager	60000	1994-01-05	2020-02-01
Edit Copy Delete	1011	2	Jaya	Housekeeper	30000	1991-06-10	2010-06-01
Edit Copy Delete	1012	2	Akash	Security Guard	25000	1995-11-25	2015-03-01
Edit Copy Delete	1013	3	Sakshi	Caterer	40000	1986-12-29	2012-08-01
Edit Copy Delete	1014	3	Nitin	Chef	50000	1992-03-16	2017-01-01
Edit Copy Delete	1015	4	Rajesh	Waiter	20000	1999-05-27	2021-02-01
Edit Copy Delete	1016	4	Aman	Receptionist	35000	1993-08-04	2018-06-01
Edit Copy Delete	1017	1	Kavita	Manager	75000	1990-07-15	2015-06-01
Edit Copy Delete	1018	1	Mohit	Assistant Manager	60000	1996-04-11	2020-02-01
Edit Copy Delete	1019	2	Riya	Housekeeper	30000	1989-03-23	2010-06-01
Edit Copy Delete	1020	2	Aditya	Security Guard	25000	1994-02-08	2015-03-01

OUTPUT:

staff_id	unit_no	name	occupation
1001	1	Amit	Manager
1009	1	Anita	Manager
1017	1	Kavita	Manager

13) Get the details of staff member who works in unit 2 but has not joined in 2010.

```
SELECT staff_id, unit_no,name,occupation FROM staff
WHERE unit_no=2 EXCEPT  (SELECT staff_id, unit_no,name,occupation
FROM staff WHERE doj LIKE "2010-_-_");
```

Showing rows 0 - 19 (20 total, Query took 0.0016 seconds.)

```
SELECT * FROM `staff`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	staff_id	unit_no	name	occupation	salary	dob	doj
Edit Copy Delete	1001	1	Amit	Manager	75000	1990-05-01	2015-06-01
Edit Copy Delete	1002	1	Rahul	Assistant Manager	60000	1995-02-14	2020-02-01
Edit Copy Delete	1003	2	Priya	Housekeeper	30000	1988-11-20	2010-06-01
Edit Copy Delete	1004	2	Suresh	Security Guard	25000	1992-09-10	2015-03-01
Edit Copy Delete	1005	3	Shubhangi	Caterer	40000	1985-06-12	2012-08-01
Edit Copy Delete	1006	3	Anjali	Chef	50000	1991-04-25	2017-01-01
Edit Copy Delete	1007	4	Shivam	Waiter	20000	1998-08-18	2021-02-01
Edit Copy Delete	1008	4	Aryan	Receptionist	35000	1994-12-31	2018-06-01
Edit Copy Delete	1009	1	Anita	Manager	75000	1989-09-21	2015-06-01
Edit Copy Delete	1010	1	Kumar	Assistant Manager	60000	1994-01-05	2020-02-01
Edit Copy Delete	1011	2	Jaya	Housekeeper	30000	1991-06-10	2010-06-01
Edit Copy Delete	1012	2	Akash	Security Guard	25000	1995-11-25	2015-03-01
Edit Copy Delete	1013	3	Sakshi	Caterer	40000	1986-12-29	2012-08-01
Edit Copy Delete	1014	3	Nitin	Chef	50000	1992-03-16	2017-01-01
Edit Copy Delete	1015	4	Rajesh	Waiter	20000	1999-05-27	2021-02-01
Edit Copy Delete	1016	4	Aman	Receptionist	35000	1993-08-04	2018-06-01
Edit Copy Delete	1017	1	Kavita	Manager	75000	1990-07-15	2015-06-01
Edit Copy Delete	1018	1	Mohit	Assistant Manager	60000	1996-04-11	2020-02-01
Edit Copy Delete	1019	2	Riya	Housekeeper	30000	1989-03-23	2010-06-01
Edit Copy Delete	1020	2	Aditya	Security Guard	25000	1994-02-08	2015-03-01

OUTPUT:

Showing rows 0 - 5 (6 total, Query took 0.0030 seconds.)

```
SELECT staff_id, unit_no,name,occupation FROM staff WHERE unit_no=2 EXCEPT (SELECT staff_id, unit_no,name,occupation FROM staff WHERE doj LIKE "2010-_-_");
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

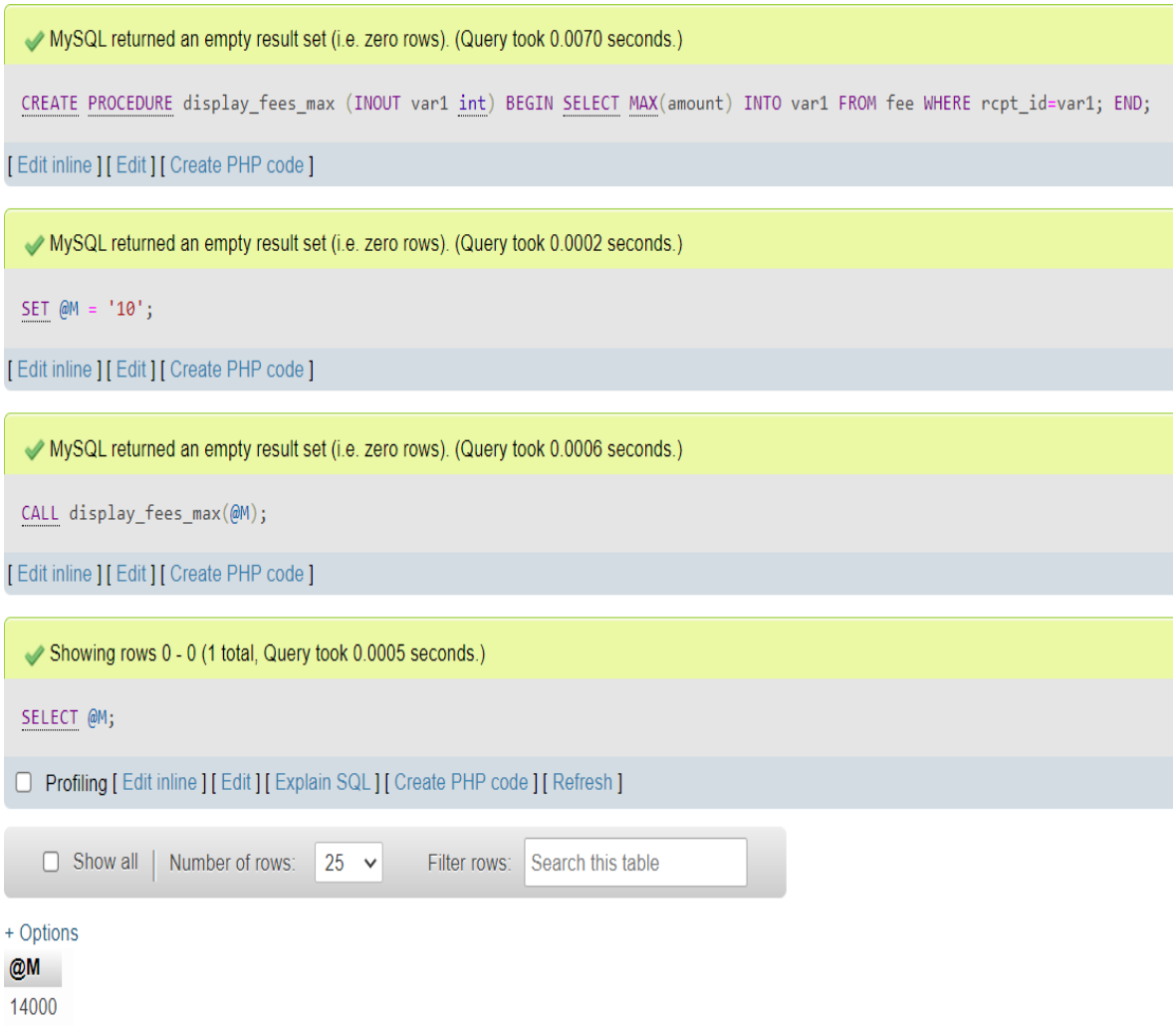
Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

staff_id	unit_no	name	occupation
1003	2	Priya	Housekeeper
1004	2	Suresh	Security Guard
1011	2	Jaya	Housekeeper
1012	2	Akash	Security Guard
1019	2	Riya	Housekeeper
1020	2	Aditya	Security Guard

14) Write a procedure to display the maximum fees paid by a student

```
DELIMITER &&
CREATE PROCEDURE display_fees_max (INOUT var1 int)
BEGIN
 SELECT MAX(amount) INTO var1 FROM fee WHERE rcpt_id=var1;
END &&
DELIMITER ;
SET @M = '10';
CALL display_fees_max(@M);
SELECT @M;
```



PES UNIVERSITY, BANGALORE
Department of Computer Science and Engineering

```
SELECT * FROM `fee`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

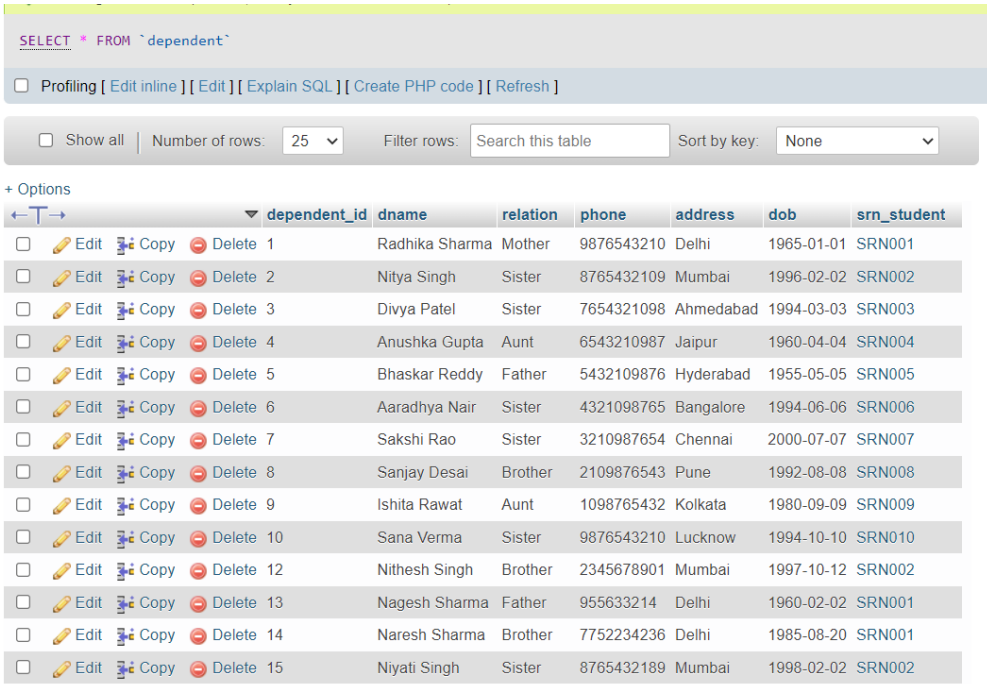
	rcpt_id	srn	amount	year	type
Edit Copy Delete	1	SRN001	5000	2022	UPI
Edit Copy Delete	2	SRN002	6000	2022	NEFT
Edit Copy Delete	3	SRN003	7000	2022	NEFT
Edit Copy Delete	4	SRN004	8000	2022	NEFT
Edit Copy Delete	5	SRN005	9000	2020	CASH
Edit Copy Delete	6	SRN006	10000	2022	CASH
Edit Copy Delete	7	SRN007	11000	2021	UPI
Edit Copy Delete	8	SRN008	12000	2022	CASH
Edit Copy Delete	9	SRN009	13000	2021	CHEQUE
Edit Copy Delete	10	SRN010	14000	2022	UPI
Edit Copy Delete	11	SRN011	15000	2022	NEFT
Edit Copy Delete	12	SRN012	16000	2022	CHEQUE
Edit Copy Delete	13	SRN013	17000	2020	CHEQUE
Edit Copy Delete	14	SRN014	18000	2021	UPI
Edit Copy Delete	15	SRN015	19000	2022	CASH
Edit Copy Delete	16	SRN016	20000	2022	NEFT
Edit Copy Delete	17	SRN017	21000	2022	CHEQUE
Edit Copy Delete	18	SRN018	22000	2021	CASH
Edit Copy Delete	19	SRN019	23000	2022	UPI
Edit Copy Delete	20	SRN020	24000	2020	NEFT

15) Create a trigger warning if a student has more than two dependents

```
DELIMITER $$
CREATE TRIGGER guardian_count
BEFORE INSERT
ON dependent
FOR EACH ROW
BEGIN
DECLARE error_msg VARCHAR(500);
DECLARE result int;
(select count(*) from dependent where dependent.srn_student = NEW.srn_student) into result;
IF (result > 2)
THEN
SET error_msg = 'Cannot have more than two guardian';
SIGNAL SQLSTATE '45000'
SET MESSAGE_TEXT = error_msg;
END IF;
END $$
```

```
INSERT INTO dependent
VALUES
(15, 'Niyati Singh', 'Sister', 8765432189, 'Mumbai', '1998-02-02', 'SRN002');

INSERT INTO dependent
VALUES
(16, 'Naresh Singh', 'Brother', 8765432189, 'Mumbai', '1985-06-02', 'SRN002');
```



```
SELECT * FROM `dependent`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	dependent_id	dname	relation	phone	address	dob	srn_student
Edit Copy Delete	1	Radhika Sharma	Mother	9876543210	Delhi	1965-01-01	SRN001
Edit Copy Delete	2	Nitya Singh	Sister	8765432109	Mumbai	1996-02-02	SRN002
Edit Copy Delete	3	Divya Patel	Sister	7654321098	Ahmedabad	1994-03-03	SRN003
Edit Copy Delete	4	Anushka Gupta	Aunt	6543210987	Jaipur	1960-04-04	SRN004
Edit Copy Delete	5	Bhaskar Reddy	Father	5432109876	Hyderabad	1955-05-05	SRN005
Edit Copy Delete	6	Aaradhya Nair	Sister	4321098765	Bangalore	1994-06-06	SRN006
Edit Copy Delete	7	Sakshi Rao	Sister	3210987654	Chennai	2000-07-07	SRN007
Edit Copy Delete	8	Sanjay Desai	Brother	2109876543	Pune	1992-08-08	SRN008
Edit Copy Delete	9	Ishita Rawat	Aunt	1098765432	Kolkata	1980-09-09	SRN009
Edit Copy Delete	10	Sana Verma	Sister	9876543210	Lucknow	1994-10-10	SRN010
Edit Copy Delete	12	Nithesh Singh	Brother	2345678901	Mumbai	1997-10-12	SRN002
Edit Copy Delete	13	Nagesh Sharma	Father	955633214	Delhi	1960-02-02	SRN001
Edit Copy Delete	14	Naresh Sharma	Brother	7752234236	Delhi	1985-08-20	SRN001
Edit Copy Delete	15	Niyati Singh	Sister	8765432189	Mumbai	1998-02-02	SRN002

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 21 (22 total, Query took 0.0011 seconds.)

```
SELECT * FROM `student`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	room_no	srn	name	semester	phone	address	unit_no	dob
Edit Copy Delete	101	SRN001	Ananya Sharma	2	9876543210	Delhi	2	2000-01-01
Edit Copy Delete	302	SRN002	Aarushi Singh	3	8765432109	Mumbai	1	1999-02-02
Edit Copy Delete	303	SRN003	Aashna Patel	1	7654321098	Ahmedabad	2	2001-03-03
Edit Copy Delete	204	SRN004	Anjali Gupta	4	6543210987	Jaipur	3	1998-04-04
Edit Copy Delete	5	SRN005	Akshara Reddy	2	5432109876	Hyderabad	2	2000-05-05
Edit Copy Delete	106	SRN006	Anjana Nair	3	4321098765	Bangalore	1	1999-06-06
Edit Copy Delete	107	SRN007	Aditi Rao	1	3210987654	Chennai	3	2001-07-07
Edit Copy Delete	108	SRN008	Aarohi Desai	4	2109876543	Pune	2	1998-08-08
Edit Copy Delete	209	SRN009	Alisha Rawat	2	1098765432	Kolkata	2	2000-09-09
Edit Copy Delete	210	SRN010	Aanya Verma	3	9876543210	Lucknow	3	1999-10-10
Edit Copy Delete	311	SRN011	Bhavya Sharma	1	1234567890	Delhi	4	2001-11-11
Edit Copy Delete	2	SRN012	Bhumika Singh	2	2345678901	Mumbai	4	2000-12-12
Edit Copy Delete	123	SRN013	Bhavana Patel	3	3456789012	Ahmedabad	4	1999-01-13
Edit Copy Delete	214	SRN014	Bhavika Gupta	4	4567890123	Jaipur	2	1998-02-14
Edit Copy Delete	203	SRN015	Chetna Reddy	1	5678901234	Hyderabad	1	2001-03-15
Edit Copy Delete	206	SRN016	Chhavi Nair	2	6789012345	Bangalore	3	2000-04-16
Edit Copy Delete	7	SRN017	Chitra Rao	3	7890123456	Chennai	4	1999-05-17
Edit Copy Delete	108	SRN018	Charu Desai	4	8901234567	Pune	2	1998-06-18
Edit Copy Delete	109	SRN019	Dhriti Rawat	1	9012345678	Kolkata	1	2001-07-19
Edit Copy Delete	303	SRN020	Deepti Verma	3	1122334455	Allahabad	3	1999-08-20
Edit Copy Delete	15	SRN023	Dev	2	124563215	Hassan	1	1999-02-23
Edit Copy Delete	132	SRN_220	Ritu	4	12345678	hubbli	3	2002-02-02

Error

SQL query: Copy

```
INSERT INTO dependent
VALUES
(16, 'Naresh Singh', 'Brother', 8765432189, 'Mumbai', '1985-06-02', 'SRN002');
```

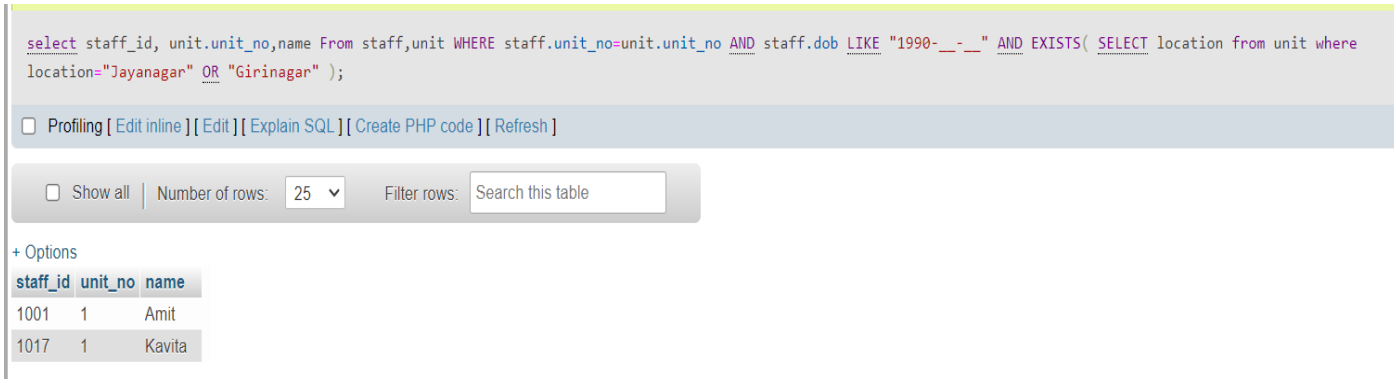
MySQL said:

```
#1644 - Cannot have more than two guardian
```

16) Display details of staff who are born in 1990 and work in Jayanagar or Girinagar.

```
select staff_id, unit.unit_no,name From staff,unit
WHERE staff.unit_no=unit.unit_no AND staff.dob LIKE "1990-__-__"
AND EXISTS(SELECT location from unit where location="Jayanagar" OR "Girinagar");
```

OUTPUT:



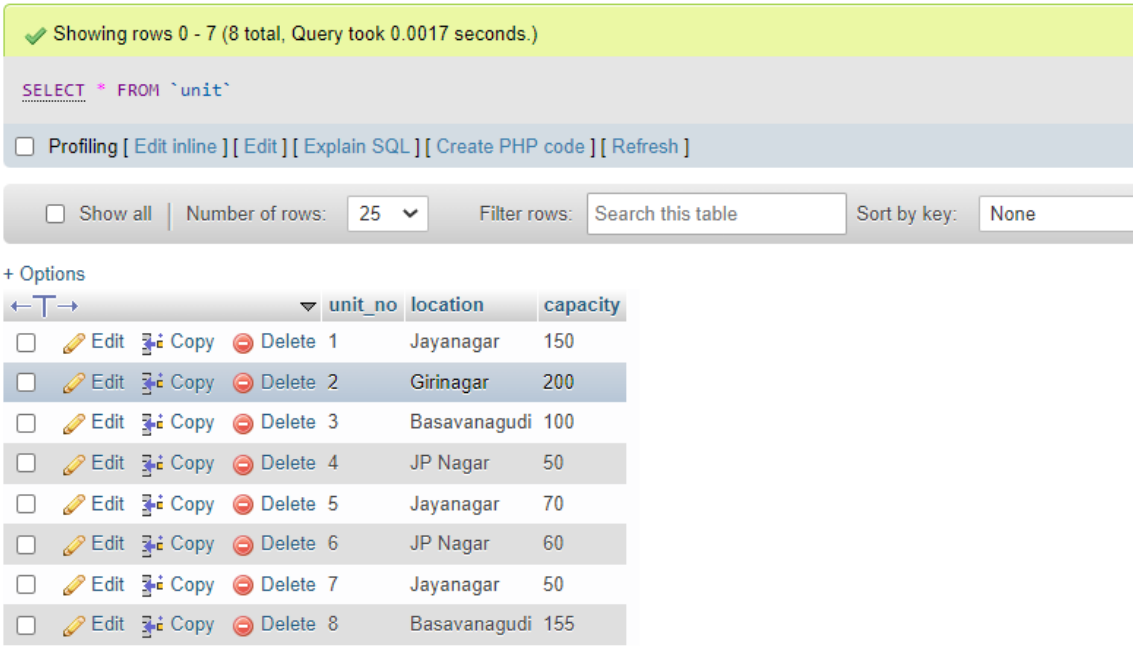
```
select staff_id, unit.unit_no,name From staff,unit WHERE staff.unit_no=unit.unit_no AND staff.dob LIKE "1990-__-__" AND EXISTS( SELECT location from unit where
location="Jayanagar" OR "Girinagar" );
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

+ Options

staff_id	unit_no	name
1001	1	Amit
1017	1	Kavita



Showing rows 0 - 7 (8 total, Query took 0.0017 seconds.)

```
SELECT * FROM `unit`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	unit_no	location	capacity
Edit Copy Delete	1	Jayanagar	150
Edit Copy Delete	2	Girinagar	200
Edit Copy Delete	3	Basavanagudi	100
Edit Copy Delete	4	JP Nagar	50
Edit Copy Delete	5	Jayanagar	70
Edit Copy Delete	6	JP Nagar	60
Edit Copy Delete	7	Jayanagar	50
Edit Copy Delete	8	Basavanagudi	155

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

Showing rows 0 - 19 (20 total, Query took 0.0016 seconds.)

```
SELECT * FROM `staff`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	staff_id	unit_no	name	occupation	salary	dob	doj
Edit Copy Delete	1001	1	Amit	Manager	75000	1990-05-01	2015-06-01
Edit Copy Delete	1002	1	Rahul	Assistant Manager	60000	1995-02-14	2020-02-01
Edit Copy Delete	1003	2	Priya	Housekeeper	30000	1988-11-20	2010-06-01
Edit Copy Delete	1004	2	Suresh	Security Guard	25000	1992-09-10	2015-03-01
Edit Copy Delete	1005	3	Shubhangi	Caterer	40000	1985-06-12	2012-08-01
Edit Copy Delete	1006	3	Anjali	Chef	50000	1991-04-25	2017-01-01
Edit Copy Delete	1007	4	Shivam	Waiter	20000	1998-08-18	2021-02-01
Edit Copy Delete	1008	4	Aryan	Receptionist	35000	1994-12-31	2018-06-01
Edit Copy Delete	1009	1	Anita	Manager	75000	1989-09-21	2015-06-01
Edit Copy Delete	1010	1	Kumar	Assistant Manager	60000	1994-01-05	2020-02-01
Edit Copy Delete	1011	2	Jaya	Housekeeper	30000	1991-06-10	2010-06-01
Edit Copy Delete	1012	2	Akash	Security Guard	25000	1995-11-25	2015-03-01
Edit Copy Delete	1013	3	Sakshi	Caterer	40000	1986-12-29	2012-08-01
Edit Copy Delete	1014	3	Nitin	Chef	50000	1992-03-16	2017-01-01
Edit Copy Delete	1015	4	Rajesh	Waiter	20000	1999-05-27	2021-02-01
Edit Copy Delete	1016	4	Aman	Receptionist	35000	1993-08-04	2018-06-01
Edit Copy Delete	1017	1	Kavita	Manager	75000	1990-07-15	2015-06-01
Edit Copy Delete	1018	1	Mohit	Assistant Manager	60000	1996-04-11	2020-02-01
Edit Copy Delete	1019	2	Riya	Housekeeper	30000	1989-03-23	2010-06-01
Edit Copy Delete	1020	2	Aditya	Security Guard	25000	1994-02-08	2015-03-01

17) Display details of staff who are born in 1993 and do not work in Jayanagar or Girinagar.

```
select staff_id, unit.unit_no,name From staff,unit
WHERE staff.unit_no=unit.unit_no AND staff.dob LIKE "1993-__-__"
AND NOT EXISTS( SELECT location from unit where location="Jayanagar" OR "Girinagar");
```

PES UNIVERSITY, BANGALORE

Department of Computer Science and Engineering

```
SELECT * FROM `unit`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

+ Options

	unit_no	location	capacity
Edit Copy Delete	1	Jayanagar	150
Edit Copy Delete	2	Girinagar	200
Edit Copy Delete	3	Basavanagudi	100
Edit Copy Delete	4	JP Nagar	50
Edit Copy Delete	5	Jayanagar	70
Edit Copy Delete	6	JP Nagar	60
Edit Copy Delete	7	Jayanagar	50
Edit Copy Delete	8	Basavanagudi	155

```
SELECT * FROM `staff`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

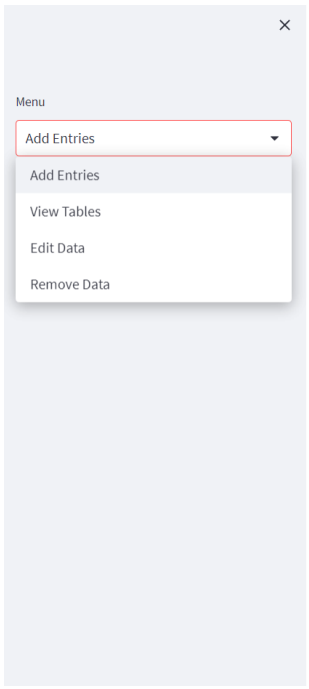
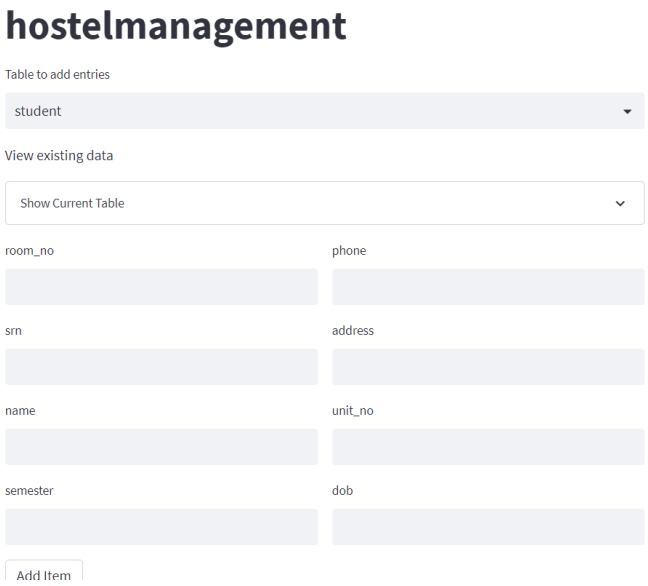
+ Options

	staff_id	unit_no	name	occupation	salary	dob	doj
Edit Copy Delete	1001	1	Amit	Manager	75000	1990-05-01	2015-06-01
Edit Copy Delete	1002	1	Rahul	Assistant Manager	60000	1995-02-14	2020-02-01
Edit Copy Delete	1003	2	Priya	Housekeeper	30000	1988-11-20	2010-06-01
Edit Copy Delete	1004	2	Suresh	Security Guard	25000	1992-09-10	2015-03-01
Edit Copy Delete	1005	3	Shubhangi	Caterer	40000	1985-06-12	2012-08-01
Edit Copy Delete	1006	3	Anjali	Chef	50000	1991-04-25	2017-01-01
Edit Copy Delete	1007	4	Shivam	Waiter	20000	1998-08-18	2021-02-01
Edit Copy Delete	1008	4	Aryan	Receptionist	35000	1994-12-31	2018-06-01
Edit Copy Delete	1009	1	Anita	Manager	75000	1989-09-21	2015-06-01
Edit Copy Delete	1010	1	Kumar	Assistant Manager	60000	1994-01-05	2020-02-01
Edit Copy Delete	1011	2	Jaya	Housekeeper	30000	1991-06-10	2010-06-01
Edit Copy Delete	1012	2	Akash	Security Guard	25000	1995-11-25	2015-03-01
Edit Copy Delete	1013	3	Sakshi	Caterer	40000	1986-12-29	2012-08-01
Edit Copy Delete	1014	3	Nitin	Chef	50000	1992-03-16	2017-01-01
Edit Copy Delete	1015	4	Rajesh	Waiter	20000	1999-05-27	2021-02-01
Edit Copy Delete	1016	4	Aman	Receptionist	35000	1993-08-04	2018-06-01
Edit Copy Delete	1017	1	Kavita	Manager	75000	1990-07-15	2015-06-01
Edit Copy Delete	1018	1	Mohit	Assistant Manager	60000	1996-04-11	2020-02-01
Edit Copy Delete	1019	2	Riya	Housekeeper	30000	1989-03-23	2010-06-01
Edit Copy Delete	1020	2	Aditya	Security Guard	25000	1994-02-08	2015-03-01

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0048 seconds.)

```
select staff_id, unit.unit_no,name From staff,unit WHERE staff.unit_no=unit.unit_no AND staff.dob LIKE "1993-__-__" AND NOT EXISTS( SELECT location from unit where location="Jayanagar" OR "Girinagar" );
```

+ Options

staff_id	unit_no	name
1016	4	Aman

Streamlit window: