Name: Krish Bharat Porwal

Registration Number: 231080910

Questions=

1. Get all the employees of a specific hostel.

```
SELECT * FROM Employees WHERE hostel_id = 'SAB';
```

Employees (8r × 8c)

#	employee_id	name	gender	phone_number	hostel_id	salary	date_of_join	date_of_leave
1	SAB21203653	VIRENDRA VYAS	M	6280350523	SAB	600,000.0	2016-09-28	2022-10-05
2	SAB21204651	BAJRANG SALGAR	M	4118189938	SAB	200,000.0	2017-06-17	(NULL)
3	SAB21205468	SANJU MAHARAJ	M	1194292750	SAB	280,000.0	2016-11-28	(NULL)
4	SAB2130034	SHAILESH RATHOD	M	7904228371	SAB	240,000.0	2014-03-04	(NULL)
5	SAB2130214	HERMANT SINGH	M	2963260934	SAB	480,000.0	2017-05-28	(NULL)
6	SAB2130331	MOHANLAL PANDEY	M	5029951442	SAB	360,000.0	2017-06-29	(NULL)
7	SAB2130468	YASHWANT RAO	M	4427900484	SAB	180,000.0	2013-06-29	(NULL)
8	SAB2130469	NILESH PAWAR	M	9383311809	SAB	180,000.0	2015-02-01	2023-02-10

2. Get the total number of rooms in each hostel.

```
SELECT hostel_id, COUNT(*) AS total_rooms
FROM Rooms
GROUP BY hostel_id;
```

Rooms (1r × 2c)

#	hostel_id	total_rooms
1	SAB	37

3. Find out which rooms are currently occupied by students in a specific hostel.

```
SELECT r.*
FROM Rooms r
INNER JOIN Student_room_assignment sra ON r.room_number = sra.room_number AND
r.hostel_id = sra.hostel_id
WHERE r.hostel_id = 'SAB';
```

#	room_number	capacity	hostel_id
1	3	3	SAB
2	3	3	SAB
3	3	3	SAB
4	4	4	SAB
5	4	4	SAB
6	4	4	SAB
7	4	4	SAB
8	5	3	SAB
9	5	3	SAB
10	6	4	SAB
11	6	4	SAB
12	6	4	SAB
13	6	4	SAB

Rooms (113r × 3c)

4. List all the dependents of a specific student.

```
SELECT * FROM Dependents WHERE student_id = 'SAB2300368';
```

Dependents (1r × 5c)

#	student_id	dependent_phone_number	name	age	relation
1	SAB2300368	1990889604	BHARAT PORWAL	48	FATHER

5. Get the total fees paid by a specific student.

```
SELECT student_id, SUM(amount) AS total_paid_fees
FROM Fees
WHERE student_id = 'SAB2300368'
GROUP BY student_id;
```

Fees (1r × 2c)

#	student_id	total_paid_fees
1	SAB2300368	80,000

6. Find out the mode of payment used by each student for their fees.

```sql
SELECT student_id, mode_of_payment
FROM Fees
WHERE student_id = 'SAB2300368';
```

Fees (1r × 2c)

#	student_id	mode_of_payment
1	SAB2300368	NFT

7. Get the number of students in each hostel.

```sql
SELECT hostel_id, COUNT(*) AS total_students
FROM Students
GROUP BY hostel_id;
```

Students (1r × 2c)

#	hostel_id	total_students
1	SAB	113

8. Find the average age of students in a specific hostel.

```sql
SELECT AVG(age) AS average_age
FROM Students
WHERE hostel_id = 'SAB';
```

Students (1r × 1c)

#	average_age
1	19.5044

9. List all the rooms with their capacities in a specific hostel.

```sql
SELECT room_number, capacity
FROM Rooms
WHERE hostel_id = 'SAB';
```

Rooms (37r × 2c)

#	room_number 🔑	capacity
1	1	0
2	2	0
3	3	3
4	4	4
5	5	3
6	6	4
7	7	4
8	8	4
9	9	4
10	10	4
11	11	4
12	12	4
13	13	3
14	14	0

10. Get the total pending fees for each student in a specific hostel.

```sql
SELECT student_id, SUM(pending) AS total_pending_fees
FROM Fees
WHERE student_id IN (SELECT student_id FROM Students WHERE hostel_id = 'SAB')
GROUP BY student_id;
```

Fees (113r × 2c)

#	student_id 🔑	total_pending_fees
1	PUB21100420	0.0
2	PUB22202070	0.0
3	SAB22203002	0.0
4	SAB22203003	0.0
5	SAB22203004	0.0
6	SAB22203012	0.0
7	SAB22203015	0.0
8	SAB22203016	0.0
9	SAB22203017	0.0
10	SAB22203020	0.0
11	SAB22203025	0.0
12	SAB22203026	0.0
13	SAB22203028	0.0
14	SAB22203033	0.0

11. Find the highest-paid employee in each hostel.

```sql
SELECT hostel_id, MAX(salary) AS highest_salary
FROM Employees
GROUP BY hostel_id;
```

Employees (1r × 2c)

#	hostel_id	highest_salary
1	SAB	600,000.0

12. List all the students who have not paid their fees in full.

```sql
SELECT student_id
FROM Fees
WHERE pending > 0;
```

Fees (0r × 1c)

#	student_id

13. Find the total number of dependents for each student.

```sql
SELECT student_id, COUNT(*) AS total_dependents
FROM Dependents
GROUP BY student_id;
```

Dependents (113r × 2c)

#	student_id	total_dependents
1	PUB21100420	1
2	PUB22202070	1
3	SAB22203002	1
4	SAB22203003	1
5	SAB22203004	1
6	SAB22203012	1
7	SAB22203015	1
8	SAB22203016	1
9	SAB22203017	1
10	SAB22203020	1
11	SAB22203025	1
12	SAB22203026	1
13	SAB22203028	1
14	SAB22203033	1

14. Get the details of students who joined after a specific date.

```sql
SELECT *
FROM Students
WHERE date_of_join > '2023-07-11';
```

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id
1	SAB2300368	KRISH BHARAT PORWAL	KOPARGAON	18	BTECH	5867489327	1990889604	2023-08-31	2026-07-10	SAB
2	SAB2300387	AAGAM NILESH JAIN	PALI	19	BFM	4574875736	6416609696	2023-07-17	2027-01-12	SAB

Students (2r × 10c)

15. List all the rooms with the number of students currently assigned to them.

```sql
SELECT r.room_number, r.hostel_id, COUNT(sra.student_id) AS current_students
FROM Rooms r
LEFT JOIN Student_room_assignment sra ON r.room_number = sra.room_number AND
r.hostel_id = sra.hostel_id
GROUP BY r.room_number, r.hostel_id;
```

Rooms (37r × 3c)

#	room_number	hostel_id	current_students
1	1	SAB	0
2	2	SAB	0
3	3	SAB	3
4	4	SAB	4
5	5	SAB	2
6	6	SAB	4
7	7	SAB	4
8	8	SAB	4
9	9	SAB	4
10	10	SAB	4
11	11	SAB	4
12	12	SAB	4
13	13	SAB	3
14	14	SAB	1

16. Find the average salary of employees in each hostel.

```sql
SELECT hostel_id, AVG(salary) AS average_salary
FROM Employees
```

```
GROUP BY hostel_id;
```

#	hostel_id 🔑	average_salary
1	**SAB**	315,000.0

Employees (1r × 2c)

17. Get the total number of dependents of age 69.

```
SELECT COUNT(*) AS total_dependents
FROM Dependents d
JOIN Students s ON d.student_id = s.student_id
WHERE d.age = 69;
```

Dependents (1r × 1c)

#	total_dependents
1	0

18. Find out the total amount of fees collected each month.

```
SELECT MONTH(date) AS month, YEAR(date) AS year, SUM(amount) AS
total_fees_collected
FROM Fees
GROUP BY MONTH(date), YEAR(date);
```

Fees (2r × 3c)

#	month	year	total_fees_collected
1	1	2,024	6,560,000
2	12	2,023	2,480,000

19. List all the students who have pending fees greater than a specific amount.

```
SELECT MONTH(date) AS month, YEAR(date) AS year, SUM(amount) AS
total_fees_collected
FROM Fees
GROUP BY MONTH(date), YEAR(date);
```

#	month	year	total_fees_collected
1	1	2,024	6,560,000
2	12	2,023	2,480,000

Fees (2r × 3c)

20. Find the oldest and youngest student in each hostel.

```sql
SELECT hostel_id, MIN(age) AS youngest_student_age, MAX(age) AS
oldest_student_age
FROM Students
GROUP BY hostel_id;
```

Students (1r × 3c)

#	hostel_id	youngest_student_age	oldest_student_age
1	SAB	16	27

21. List all the employees who have joined in the last six months.

```sql
SELECT *
FROM Employees
WHERE date_of_join >= DATE_SUB(CURRENT_DATE(), INTERVAL 6 MONTH);
```

Employees (0r × 8c)

#	employee_id	name	gender	phone_number	hostel_id	salary	date_of_join	date_of_leave

22. Find the total number of rooms and total capacity in each hostel.

```sql
SELECT hostel_id, COUNT(*) AS total_rooms, SUM(capacity) AS total_capacity
FROM Rooms
GROUP BY hostel_id;
```

Rooms (1r × 3c)

#	hostel_id	total_rooms	total_capacity
1	SAB	37	120

23. Get the names and ages of all students along with their respective hostels.

```sql
SELECT s.name AS student_name, s.age, h.name AS hostel_name
FROM Students s
JOIN Hostel_Branch h ON s.hostel_id = h.hostel_id;
```

Students (113r × 3c)

#	student_name	age	hostel_name
1	YASH VIJAY KHATOR	23	SMJV Sandhurst Road
2	DAKSH MANOJKUMAR JAIN	20	SMJV Sandhurst Road
3	MOHIT SANJAY BOTRA	19	SMJV Sandhurst Road
4	NAMAN MANOJKUMAR JAIN	19	SMJV Sandhurst Road
5	MANAS RAMESHKUMAR SANKLECHA	20	SMJV Sandhurst Road
6	AKSHAT JAYVANT JAIN	19	SMJV Sandhurst Road
7	DISHANK PRAVIN HARAN	20	SMJV Sandhurst Road
8	MANTHAN RUPESH JAIN	17	SMJV Sandhurst Road
9	KAVYA NARENDRA JAIN	18	SMJV Sandhurst Road
10	VARUN MOHANLAL JAIN	20	SMJV Sandhurst Road
11	RAJ YOGESH SHAH	22	SMJV Sandhurst Road
12	CHAYAN ANIL JAIN	19	SMJV Sandhurst Road
13	PARTH VISHALKUMAR SHAH	17	SMJV Sandhurst Road
14	OM PAVANKUMAR SHETIYA	20	SMJV Sandhurst Road

24. List all the employees who have left their jobs within the last year.

```sql
SELECT *
FROM Employees
WHERE date_of_leave >= DATE_SUB(CURRENT_DATE(), INTERVAL 1 YEAR);
```

Employees (0r × 8c)

#	employee_id	name	gender	phone_number	hostel_id	salary	date_of_join	date_of_leave

25. Find the average age of students in each hostel.

```sql
SELECT hostel_id, AVG(age) AS average_age
FROM Students
GROUP BY hostel_id;
```

Students (1r × 2c)

#	hostel_id	average_age
1	SAB	19.5044

26. Get the details of students who have dependent(s) with a specific relation (e.g., 'parent').

```sql
SELECT s.*, d.*
FROM Students s
JOIN Dependents d ON s.student_id = d.student_id
WHERE d.relation = 'specific_relation';
```

Students (0r × 15c)

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id	student_id	dependent_phone_number	na

27. List all the rooms with their respective capacities and the number of students currently assigned.

```sql
SELECT r.room_number, r.capacity, r.hostel_id, COUNT(sra.student_id) AS
current_students
FROM Rooms r
LEFT JOIN Student_room_assignment sra ON r.room_number = sra.room_number AND
r.hostel_id = sra.hostel_id
GROUP BY r.room_number, r.capacity, r.hostel_id;
```

Rooms (37r × 4c)

#	room_number	capacity	hostel_id	current_students
1	1	0	SAB	0
2	2	0	SAB	0
3	3	3	SAB	3
4	4	4	SAB	4
5	5	3	SAB	2
6	6	4	SAB	4
7	7	4	SAB	4
8	8	4	SAB	4
9	9	4	SAB	4
10	10	4	SAB	4
11	11	4	SAB	4
12	12	4	SAB	4
13	13	3	SAB	3
14	14	0	SAB	1

28. Find the total amount of fees collected from each mode of payment.

```sql
SELECT mode_of_payment, SUM(amount) AS total_fees_collected
FROM Fees
GROUP BY mode_of_payment;
```

Fees (1r × 2c)

#	mode_of_payment	total_fees_collected
1	NFT	9,040,000

29. Get the names and ages of all students who have not yet left their hostels.

```sql
SELECT name, age
FROM Students
WHERE date_of_leave IS NULL;
```

Students (0r × 2c)

#	name	age

30. List all the rooms where the number of currently assigned students exceeds the capacity.

```sql
SELECT r.room_number, r.capacity, r.hostel_id, COUNT(sra.student_id) AS
current_students
FROM Rooms r
LEFT JOIN Student_room_assignment sra ON r.room_number = sra.room_number AND
r.hostel_id = sra.hostel_id
GROUP BY r.room_number, r.capacity, r.hostel_id
HAVING current_students > r.capacity;
```

Rooms (3r × 4c)

#	room_number	capacity	hostel_id	current_students
1	14	0	SAB	1
2	28	4	SAB	5
3	29	4	SAB	6

31. List all employees along with the total number of students they are responsible for managing.

```sql
SELECT e.employee_id, e.name, COUNT(s.student_id) AS total_students_managed
FROM Employees e
LEFT JOIN Students s ON e.hostel_id = s.hostel_id
GROUP BY e.employee_id, e.name;
```

Employees (8r × 3c)

#	employee_id	name	total_students_managed
1	SAB21203653	VIRENDRA VYAS	113
2	SAB21204651	BAJRANG SALGAR	113
3	SAB21205468	SANJU MAHARAJ	113
4	SAB2130034	SHAILESH RATHOD	113
5	SAB2130214	HERMANT SINGH	113
6	SAB2130331	MOHANLAL PANDEY	113
7	SAB2130468	YASHWANT RAO	113
8	SAB2130469	NILESH PAWAR	113

32. Find the hostel with the highest number of pending fees.

```sql
SELECT hostel_id, SUM(pending) AS total_pending_fees
FROM Fees
GROUP BY hostel_id
ORDER BY total_pending_fees DESC
LIMIT 1;
```

hostel_branch (1r × 2c)

#	hostel_id	total_pending_fees
1	ANB	0.0

33. List all the students who joined the hostel before the age of 18.

```sql
SELECT *
FROM Students
WHERE TIMESTAMPDIFF(YEAR, date_of_join, CURRENT_DATE()) < 18;
```

students (12r × 10c)

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id
1	SAB22203016	MANTHAN RUPESH JAIN	NAGOTNA	17	BCA	1387694805	6170934569	2023-05-28	2026-11-08	SAB
2	SAB22203028	PARTH VISHALKUMAR SHAH	SANGLI	17	BBA	5081292842	9524134213	2022-03-17	2027-04-16	SAB
3	SAB22203045	ISH DEEPAK JAIN	CH. SAMBHAJINAGAR	17	BCOM	3938467381	3539824441	2022-08-07	2026-01-31	SAB
4	SAB22203048	DIYANSH NARENDRA JAIN	AKOLA	17	BAF	6729338054	8093033924	2023-03-25	2025-04-25	SAB
5	SAB22203052	HARSH DIVESH PORWAL	PALI	16	BCOM	2205556695	8982663671	2023-01-17	2026-11-05	SAB
6	SAB22203073	YUG MAHESH JAIN	ROHA	17	BTECH	1458062309	9795790420	2022-07-24	2024-02-20	SAB
7	SAB22203076	SHLOK ANUP JAIN	SHAHPUR	17	CA	3823199956	9544628402	2022-07-20	2024-05-21	SAB
8	SAB22203093	NEIL BHAVESH JAIN	ROHA	16	BBI	9770452653	9370052176	2022-02-23	2027-05-12	SAB
9	SAB22203102	PRASHAM ANIL JAIN	THANE	17	COMMERCE	9644440807	4065413693	2022-10-03	2023-09-15	SAB
10	SAB2300355	RISHI RAHUL JAIN	MEWAD	16	BAF	1301383629	3086170460	2023-02-12	2024-06-04	SAB
11	SAB2300357	MAYAN AMITKUMAR JAIN	ROHA	17	BCA	6344586898	4213320442	2022-01-18	2027-02-21	SAB
12	SAB2300390	CHAITYA VIKAS JAIN	MALEGAON	17	COMMERCE	1111439276	2808025547	2022-05-31	2025-03-03	SAB

34. Get the names and ages of all dependents along with the names of their respective students.

```sql
SELECT d.name AS dependent_name, d.age, s.name AS student_name
FROM Dependents d
JOIN Students s ON d.student_id = s.student_id;
```

Dependents (113r × 3c)

#	dependent_name	age	student_name
1	VIJAY KHATOR	59	YASH VIJAY KHATOR
2	MANOJKUMAR JAIN	35	DAKSH MANOJKUMAR JAIN
3	SANJAY BOTRA	49	MOHIT SANJAY BOTRA
4	MANOJKUMAR JAIN	35	NAMAN MANOJKUMAR JAIN
5	RAMESHKUMAR SANKLECHA	38	MANAS RAMESHKUMAR SANKLECHA
6	JAYVANT JAIN	49	AKSHAT JAYVANT JAIN
7	PRAVIN HARAN	44	DISHANK PRAVIN HARAN
8	RUPESH JAIN	41	MANTHAN RUPESH JAIN
9	NARENDRA JAIN	43	KAVYA NARENDRA JAIN
10	MOHANLAL JAIN	61	VARUN MOHANLAL JAIN
11	YOGESH SHAH	47	RAJ YOGESH SHAH
12	ANIL JAIN	63	CHAYAN ANIL JAIN
13	VISHALKUMAR SHAH	62	PARTH VISHALKUMAR SHAH
14	PAVANKUMAR SHETIYA	50	OM PAVANKUMAR SHETIYA

35. Find the average salary of employees in each hostel branch.

```sql
SELECT hostel_id, AVG(salary) AS average_salary
FROM Employees
```

```
GROUP BY hostel_id;
```


#	hostel_id	average_salary
1	SAB	315,000.0

Employees (1r × 2c)

36. List all the students who haven't paid any fees yet.

```
SELECT s.*
FROM Students s
LEFT JOIN Fees f ON s.student_id = f.student_id
WHERE f.student_id IS NULL;
```

Students (0r × 10c)

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id

37. Get the names and addresses of students along with the names of their hostels, ordered by hostel name.

```
SELECT s.name AS student_name, s.address AS student_address, h.name AS
hostel_name, h.address AS hostel_address
FROM Students s
JOIN Hostel_Branch h ON s.hostel_id = h.hostel_id
ORDER BY hostel_name;
```

Students (113r × 4c)

#	student_name	student_address	hostel_name	hostel_address
1	YASH VIJAY KHATOR	BHIWANDI	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
2	DAKSH MANOJKUMAR JAIN	RATLAM	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
3	MOHIT SANJAY BOTRA	NAGPUR	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
4	NAMAN MANOJKUMAR JAIN	CHENNAI	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
5	MANAS RAMESHKUMAR SANKLECHA	BHIWANDI	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
6	AKSHAT JAYVANT JAIN	JODHPUR	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
7	DISHANK PRAVIN HARAN	JAIPUR	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
8	MANTHAN RUPESH JAIN	NAGOTNA	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
9	KAVYA NARENDRA JAIN	AKOLA	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
10	VARUN MOHANLAL JAIN	OOTY	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
11	RAJ YOGESH SHAH	PUNE	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
12	CHAYAN ANIL JAIN	BHIWANDI	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
13	PARTH VISHALKUMAR SHAH	SANGLI	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…
14	OM PAVANKUMAR SHETIYA	OOTY	SMJV Sandhurst Road	99/101, Keshavaji Nayak Rd, Chinch…

38. Find the total number of employees in each gender category (male/female).

```
SELECT gender, COUNT(*) AS total_employees
FROM Employees
```

```
GROUP BY gender;
```


Employees (1r × 2c)

#	gender	total_employees
1	M	8

39. List all the rooms that are currently vacant (not assigned to any student).

```
SELECT *
FROM Rooms r
LEFT JOIN Student_room_assignment sra ON r.room_number = sra.room_number AND
r.hostel_id = sra.hostel_id
WHERE sra.student_id IS NULL;
```

Rooms (4r × 6c)

#	room_number	capacity	hostel_id	student_id	hostel_id	room_number
1	1	0	SAB	(NULL)	(NULL)	(NULL)
2	2	0	SAB	(NULL)	(NULL)	(NULL)
3	25	1	SAB	(NULL)	(NULL)	(NULL)
4	26	0	SAB	(NULL)	(NULL)	(NULL)

40. Get the names and ages of students who have paid the highest amount of fees in each hostel.

```
SELECT s.name AS student_name, s.age, f.hostel_id, MAX(f.amount) AS
highest_fee_paid
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
GROUP BY f.hostel_id;
```

Students (1r × 4c)

#	student_name	age	hostel_id	highest_fee_paid
1	YASH VIJAY KHATOR	23	SAB	80,000

41. List all the hostels along with the total number of rooms and the average capacity of those rooms.

```
SELECT hb.hostel_id, hb.name, COUNT(r.room_number) AS total_rooms,
AVG(r.capacity) AS average_capacity
FROM Hostel_Branch hb
LEFT JOIN Rooms r ON hb.hostel_id = r.hostel_id
GROUP BY hb.hostel_id, hb.name;
```

Hostel_Branch (3r × 4c)

#	hostel_id	hostel_name	total_rooms	average_capacity
1	ANB	SMJV Andheri	0	(NULL)
2	PUB	SMJV Pune	0	(NULL)
3	SAB	SMJV Sandhurst Road	37	3.2432

42. Find the total amount of pending fees for each mode of payment.

```
SELECT mode_of_payment, SUM(pending) AS total_pending_fees
FROM Fees
GROUP BY mode_of_payment;
```

Fees (1r × 2c)

#	mode_of_payment	total_pending_fees
1	NFT	0.0

43. List all the students who have joined the hostel in the current year.

```
SELECT *
FROM Students
WHERE YEAR(date_of_join) = YEAR(CURRENT_DATE());
```

Students (0r × 10c)

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id

44. Get the names of the students along with the count of their dependents.

```
SELECT s.name AS student_name, COUNT(d.student_id) AS dependent_count
FROM Students s
LEFT JOIN Dependents d ON s.student_id = d.student_id
GROUP BY s.name;
```

#	student_name	dependent_count
1	AAGAM AMIT CHHAJED	1
2	AAGAM NILESH JAIN	1
3	ABHISHEK SACHIN GANDHI	1
4	AKSHAT JAYVANT JAIN	1
5	AKSHAT MOHAN GANDHI	1
6	AKSHAT MUKESH DOSHI	1
7	AKSHAT RANJIT JAIN	1
8	AKSHAT VINOD LUNIA	1
9	ARIHANT MAHENDRA KOTECHA	1
10	ARYAN VISHAL KOTHARI	1
11	ATHARVA ASHISH SISODIYA	1
12	AVI AMIT SHAH	1
13	AYUSH JAYESH JAIN	1
14	AYUSH SANDEEP LUNIA	1

Students (113r × 2c)

45. Find the employee with the highest salary in each hostel.

```
SELECT e.employee_id, e.name AS employee_name, e.salary, e.hostel_id
FROM Employees e
JOIN (
    SELECT hostel_id, MAX(salary) AS max_salary
    FROM Employees
    GROUP BY hostel_id
) AS max_sal ON e.hostel_id = max_sal.hostel_id AND e.salary =
max_sal.max_salary;
```

Employees (1r × 4c)

#	employee_id	employee_name	salary	hostel_id
1	SAB21203653	VIRENDRA VYAS	600,000.0	SAB

46. List all the students who are paying their fees through cash.

```
SELECT s.*
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
WHERE f.mode_of_payment = 'cash';
```

Students (0r × 10c)

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id

47. Get the names of all the rooms along with their respective hostels.

```sql
SELECT r.room_number, r.capacity, hb.name AS hostel_name
FROM Rooms r
JOIN Hostel_Branch hb ON r.hostel_id = hb.hostel_id;
```

Rooms (37r × 3c)

#	room_number 🔑	capacity	hostel_name
1	1	0	SMJV Sandhurst Road
2	2	0	SMJV Sandhurst Road
3	3	3	SMJV Sandhurst Road
4	4	4	SMJV Sandhurst Road
5	5	3	SMJV Sandhurst Road
6	6	4	SMJV Sandhurst Road
7	7	4	SMJV Sandhurst Road
8	8	4	SMJV Sandhurst Road
9	9	4	SMJV Sandhurst Road
10	10	4	SMJV Sandhurst Road
11	11	4	SMJV Sandhurst Road
12	12	4	SMJV Sandhurst Road
13	13	3	SMJV Sandhurst Road
14	14	0	SMJV Sandhurst Road

48. Find the total number of male and female students in each hostel branch.

```sql
SELECT hb.name AS hostel_name, s.gender, COUNT(s.student_id) AS total_students
FROM Hostel_Branch hb
JOIN Students s ON hb.hostel_id = s.hostel_id
GROUP BY hb.name, s.gender;
```

Hostel_Branch (1r × 2c)

#	hostel_name	total_students
1	SMJV Sandhurst Road	113

49. List all the employees who have joined the hostel in the past year.

```sql
SELECT *
FROM Employees
WHERE YEAR(date_of_join) = YEAR(CURRENT_DATE()) - 1;
```

#	employee_id 🔑	name	gender	phone_number	hostel_id 🔑	salary	date_of_join	date_of_leave

Employees (0r × 8c)

50. Find the average age of students in each hostel branch.

```sql
SELECT hb.name AS hostel_name, AVG(s.age) AS average_age
FROM Hostel_Branch hb
JOIN Students s ON hb.hostel_id = s.hostel_id
GROUP BY hb.name;
```

Hostel_Branch (1r × 2c)

#	hostel_name	average_age
1	SMJV Sandhurst Road	19.5044

51. List all the students who have not paid any fees yet.

```sql
SELECT s.*
FROM Students s
LEFT JOIN Fees f ON s.student_id = f.student_id
WHERE f.student_id IS NULL;
```

Students (0r × 10c)

#	student_id 🔑	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id 🔑

52. Find the total number of students staying in each room.

```sql
SELECT rsa.room_number, COUNT(rsa.student_id) AS total_students
FROM Student_room_assignment rsa
GROUP BY rsa.room_number;
```

Student_room_assignment (33r × 2c)

#	room_number 🔑	total_students
1	3	3
2	4	4
3	5	2
4	6	4
5	7	4
6	8	4
7	9	4
8	10	4
9	11	4
10	12	4
11	13	3
12	14	1
13	15	3
14	16	3

53. Retrieve the names of all employees along with the total number of students they are responsible for in their respective hostels.

```
SELECT e.name AS employee_name, e.hostel_id, COUNT(s.student_id) AS
total_students_managed
FROM Employees e
LEFT JOIN Students s ON e.hostel_id = s.hostel_id
GROUP BY e.name, e.hostel_id;
```

Employees (8r × 3c)

#	employee_name	hostel_id	total_students_managed
1	BAJRANG SALGAR	SAB	113
2	HERMANT SINGH	SAB	113
3	MOHANLAL PANDEY	SAB	113
4	NILESH PAWAR	SAB	113
5	SANJU MAHARAJ	SAB	113
6	SHAILESH RATHOD	SAB	113
7	VIRENDRA VYAS	SAB	113
8	YASHWANT RAO	SAB	113

54. List all the students who have dependent(s) and their respective dependents' names and ages.

```sql
SELECT s.student_id, s.name AS student_name, d.name AS dependent_name, d.age
AS dependent_age
FROM Students s
JOIN Dependents d ON s.student_id = d.student_id;
```

Students (113r × 4c)

#	student_id	student_name	dependent_name	dependent_age
1	PUB21100420	YASH VIJAY KHATOR	VIJAY KHATOR	59
2	PUB22202070	DAKSH MANOJKUMAR JAIN	MANOJKUMAR JAIN	35
3	SAB22203002	MOHIT SANJAY BOTRA	SANJAY BOTRA	49
4	SAB22203003	NAMAN MANOJKUMAR JAIN	MANOJKUMAR JAIN	35
5	SAB22203004	MANAS RAMESHKUMAR SANKLECHA	RAMESHKUMAR SANKLECHA	38
6	SAB22203012	AKSHAT JAYVANT JAIN	JAYVANT JAIN	49
7	SAB22203015	DISHANK PRAVIN HARAN	PRAVIN HARAN	44
8	SAB22203016	MANTHAN RUPESH JAIN	RUPESH JAIN	41
9	SAB22203017	KAVYA NARENDRA JAIN	NARENDRA JAIN	43
10	SAB22203020	VARUN MOHANLAL JAIN	MOHANLAL JAIN	61
11	SAB22203025	RAJ YOGESH SHAH	YOGESH SHAH	47
12	SAB22203026	CHAYAN ANIL JAIN	ANIL JAIN	63
13	SAB22203028	PARTH VISHALKUMAR SHAH	VISHALKUMAR SHAH	62
14	SAB22203033	OM PAVANKUMAR SHETIYA	PAVANKUMAR SHETIYA	50

55. Find the total number of employees in each hostel branch.

```sql
SELECT hb.name AS hostel_name, COUNT(e.employee_id) AS total_employees
FROM Hostel_Branch hb
LEFT JOIN Employees e ON hb.hostel_id = e.hostel_id
GROUP BY hb.name;
```

Hostel_Branch (3r × 2c)

#	hostel_name	total_employees
1	SMJV Andheri	0
2	SMJV Pune	0
3	SMJV Sandhurst Road	8

56. Retrieve the names of all the students who are staying in the hostel and have not yet left.

```sql
SELECT *
FROM Students
WHERE date_of_leave IS NULL;
```

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id

57. Get the names of students who have paid the highest amount of fees.

```sql
SELECT s.name AS student_name, f.amount
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
WHERE f.amount = (SELECT MAX(amount) FROM Fees);
```

Students (113r × 2c)

#	student_name	amount
1	YASH VIJAY KHATOR	80,000
2	DAKSH MANOJKUMAR JAIN	80,000
3	MOHIT SANJAY BOTRA	80,000
4	NAMAN MANOJKUMAR JAIN	80,000
5	MANAS RAMESHKUMAR SANKLECHA	80,000
6	AKSHAT JAYVANT JAIN	80,000
7	DISHANK PRAVIN HARAN	80,000
8	MANTHAN RUPESH JAIN	80,000
9	KAVYA NARENDRA JAIN	80,000
10	VARUN MOHANLAL JAIN	80,000
11	RAJ YOGESH SHAH	80,000
12	CHAYAN ANIL JAIN	80,000
13	PARTH VISHALKUMAR SHAH	80,000
14	OM PAVANKUMAR SHETIYA	80,000

58. List all the rooms along with the count of students staying in each room.

```sql
SELECT r.room_number, COUNT(rsa.student_id) AS total_students
FROM Rooms r
LEFT JOIN Student_room_assignment rsa ON r.room_number = rsa.room_number
GROUP BY r.room_number;
```

#	room_number	🔑 total_students
1	1	0
2	2	0
3	3	3
4	4	4
5	5	2
6	6	4
7	7	4
8	8	4
9	9	4
10	10	4
11	11	4
12	12	4
13	13	3
14	14	1

Rooms (37r × 2c)

59. Find the names of students who are staying in rooms with a capacity greater than 3.

```
SELECT s.*
FROM Students s
JOIN Student_room_assignment rsa ON s.student_id = rsa.student_id
JOIN Rooms r ON rsa.room_number = r.room_number
WHERE r.capacity > 3;
```

Students (88r × 10c)

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave
1	SAB2300387	AAGAM NILESH JAIN	PALI	19	BFM	4574875736	6416609696	2023-07-17	2027-01-12
2	SAB2300361	AYUSH VIJAYKUMAR JAIN	BANGALORE	20	BFM	4344275441	2087073965	2021-09-11	2026-05-30
3	SAB2300369	DEVAM RAJESH OSWAL	BIJAPUR	19	BCOM	7152531779	2571922077	2022-02-07	2024-07-17
4	SAB2300331	KUNAL JAYANTI KANKARIYA	SURAT	20	BSC	3634625152	6050892207	2022-03-03	2024-06-02
5	SAB2300348	ABHISHEK SACHIN GANDHI	SHAHPUR	19	BAF	4538600955	2681111293	2022-09-16	2024-09-25
6	SAB2300390	CHAITYA VIKAS JAIN	MALEGAON	17	COMMERCE	1111439276	2808025547	2022-05-31	2025-03-03
7	SAB22203095	HARSH SAGAR DOSHI	NASHIK	20	BFM	2675411994	2439787105	2022-06-15	2024-06-04
8	SAB2300345	KRIYANG MUKESH JAIN	VAPI	19	BBA	9464299359	2759724326	2022-11-09	2023-12-09
9	SAB22203004	MANAS RAMESHKUMAR SANKLECHA	BHIWANDI	20	CFA	8020778628	4564065509	2022-10-22	2024-01-15
10	SAB22203003	NAMAN MANOJKUMAR JAIN	CHENNAI	19	BMM	6376970462	9037417829	2023-03-03	2024-07-02
11	SAB2300356	SIDDHARTH DHARMVEER NAHATA	RAIPUR	20	BBI	8503109086	5593598964	2023-03-24	2026-09-22
12	SAB2300394	YUG VIKRAM JAIN	MALEGAON	18	COMMERCE	4634997436	5750066324	2022-12-31	2023-08-18
13	SAB2300378	DARSHAN AJIT RAIGANDHI	MALEGAON	20	BTECH	3929811878	1453109832	2023-03-27	2023-08-20

60. Get the names of all the dependents along with their respective student's name and hostel ID.

```sql
SELECT d.*, s.name AS student_name, s.hostel_id
FROM Dependents d
JOIN Students s ON d.student_id = s.student_id;
```

Dependents (113r × 7c)

#	student_id	dependent_phone_number	name	age	relation	student_name	hostel_id
1	PUB21100420	7446380546	VIJAY KHATOR	59	FATHER	YASH VIJAY KHATOR	SAB
2	PUB22202070	6234025566	MANOJKUMAR JAIN	35	FATHER	DAKSH MANOJKUMAR JAIN	SAB
3	SAB22203002	5710208104	SANJAY BOTRA	49	FATHER	MOHIT SANJAY BOTRA	SAB
4	SAB22203003	9037417829	MANOJKUMAR JAIN	35	FATHER	NAMAN MANOJKUMAR JAIN	SAB
5	SAB22203004	4564065509	RAMESHKUMAR SANKLECHA	38	FATHER	MANAS RAMESHKUMAR SANKLECHA	SAB
6	SAB22203012	6341978051	JAYVANT JAIN	49	FATHER	AKSHAT JAYVANT JAIN	SAB
7	SAB22203015	7560370773	PRAVIN HARAN	44	FATHER	DISHANK PRAVIN HARAN	SAB
8	SAB22203016	6170934569	RUPESH JAIN	41	FATHER	MANTHAN RUPESH JAIN	SAB
9	SAB22203017	2577958071	NARENDRA JAIN	43	FATHER	KAVYA NARENDRA JAIN	SAB
10	SAB22203020	9472019070	MOHANLAL JAIN	61	FATHER	VARUN MOHANLAL JAIN	SAB
11	SAB22203025	1302589357	YOGESH SHAH	47	FATHER	RAJ YOGESH SHAH	SAB
12	SAB22203026	9546792927	ANIL JAIN	63	FATHER	CHAYAN ANIL JAIN	SAB
13	SAB22203028	9524134213	VISHALKUMAR SHAH	62	FATHER	PARTH VISHALKUMAR SHAH	SAB
14	SAB22203033	8028056189	PAVANKUMAR SHETIYA	50	FATHER	OM PAVANKUMAR SHETIYA	SAB

61. List all students who are currently staying in a room with a capacity equal to 3.

```sql
SELECT s.*
FROM Students s
JOIN Student_room_assignment rsa ON s.student_id = rsa.student_id
JOIN Rooms r ON rsa.room_number = r.room_number
WHERE r.capacity = 3;
```

Students (24r × 10c)

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_
1	SAB2300349	AAGAM AMIT CHHAJED	INDORE	18	BAF	5214137572	9012782755	2021-10-22	2026-11-20	SAB
2	SAB22203049	AYUSH JAYESH JAIN	JODHPUR	20	CA	6238186246	6574603747	2023-04-12	2026-12-15	SAB
3	SAB22203094	JAINAM AMIT GOLECHA	RAIPUR	18	COMMERCE	5728541625	8201367388	2023-03-26	2024-08-17	SAB
4	SAB2300386	AKSHAT MUKESH DOSHI	UDAIPUR	19	BVOC	8193739921	4053719927	2022-01-22	2025-07-29	SAB
5	SAB2300332	JEETH AJITH GULECHA	CHENNAI	19	BBA	4210046783	2922091181	2022-02-08	2024-02-23	SAB
6	SAB22203012	AKSHAT JAYVANT JAIN	JODHPUR	19	BTECH	7931532782	6341978051	2023-01-08	2026-12-18	SAB
7	SAB22203106	DAMAN AMIT OSWAL	BIJAPUR	21	BAF	8570522394	3643482237	2021-07-14	2024-02-27	SAB
8	SAB2300344	GAURAV NARENDRA JAIN	NAGOTNA	20	BTECH	1915500075	3833978329	2021-12-17	2025-08-02	SAB
9	SAB22203016	MANTHAN RUPESH JAIN	NAGOTNA	17	BCA	1387694805	6170934569	2023-05-28	2026-11-08	SAB
10	SAB2300357	MAYAN AMITKUMAR JAIN	ROHA	17	BCA	6344586898	4213320442	2022-01-18	2027-02-21	SAB
11	SAB22203103	SAIYAM ANIL BAFNA	CH. SAMBHAJINAGAR	20	BBI	9206060948	6077298397	2023-01-24	2024-02-20	SAB
12	SAB2300354	DAKSH PINKESH JAIN	CHENNAI	19	BBI	5871998241	1369227868	2022-10-09	2025-08-03	SAB
13	SAB22203015	DISHANK PRAVIN HARAN	JAIPUR	20	BMM	4623178280	7560370773	2022-01-21	2027-05-22	SAB

62. Find the total number of rooms in each hostel branch.

```sql
SELECT hb.name AS hostel_name, COUNT(r.room_number) AS total_rooms
FROM Hostel_Branch hb
LEFT JOIN Rooms r ON hb.hostel_id = r.hostel_id
GROUP BY hb.name;
```

Hostel_Branch (3r × 2c)

#	hostel_name	total_rooms
1	SMJV Andheri	0
2	SMJV Pune	0
3	SMJV Sandhurst Road	37

63. Retrieve the names of employees who have joined after a specific date (e.g., '2015-01-01').

```
SELECT *
FROM Employees
WHERE date_of_join > '2015-01-01';
```

Employees (6r × 8c)

#	employee_id	name	gender	phone_number	hostel_id	salary	date_of_join	date_of_leave
1	SAB21203653	VIRENDRA VYAS	M	6280350523	SAB	600,000.0	2016-09-28	2022-10-05
2	SAB21204651	BAJRANG SALGAR	M	4118189938	SAB	200,000.0	2017-06-17	(NULL)
3	SAB21205468	SANJU MAHARAJ	M	1194292750	SAB	280,000.0	2016-11-28	(NULL)
4	SAB2130214	HERMANT SINGH	M	2963260934	SAB	480,000.0	2017-05-28	(NULL)
5	SAB2130331	MOHANLAL PANDEY	M	5029951442	SAB	360,000.0	2017-06-29	(NULL)
6	SAB2130469	NILESH PAWAR	M	9383311809	SAB	180,000.0	2015-02-01	2023-02-10

64. List all students along with the total amount of fees they have paid.

```
SELECT s.name AS student_name, SUM(f.amount) AS total_fees_paid
FROM Students s
LEFT JOIN Fees f ON s.student_id = f.student_id
GROUP BY s.name;
```

Students (113r × 2c)

#	student_name	total_fees_paid
1	AAGAM AMIT CHHAJED	80,000
2	AAGAM NILESH JAIN	80,000
3	ABHISHEK SACHIN GANDHI	80,000
4	AKSHAT JAYVANT JAIN	80,000
5	AKSHAT MOHAN GANDHI	80,000
6	AKSHAT MUKESH DOSHI	80,000
7	AKSHAT RANJIT JAIN	80,000
8	AKSHAT VINOD LUNIA	80,000
9	ARIHANT MAHENDRA KOTECHA	80,000
10	ARYAN VISHAL KOTHARI	80,000
11	ATHARVA ASHISH SISODIYA	80,000
12	AVI AMIT SHAH	80,000
13	AYUSH JAYESH JAIN	80,000
14	AYUSH SANDEEP LUNIA	80,000

65. Find the names of all students who are not assigned to any room.

```sql
SELECT s.*
FROM Students s
LEFT JOIN Student_room_assignment rsa ON s.student_id = rsa.student_id
WHERE rsa.room_number IS NULL;
```

Students (0r × 10c)									
#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave	hostel_id

66. Retrieve the names of all students along with the names and ages of their dependents (if any).

```sql
SELECT s.name AS student_name, d.name AS dependent_name, d.age AS
dependent_age
FROM Students s
LEFT JOIN Dependents d ON s.student_id = d.student_id;
```

Students (113r × 3c)		
#	student_name	dependent_name	dependent_age
1	YASH VIJAY KHATOR	VIJAY KHATOR	59
2	DAKSH MANOJKUMAR JAIN	MANOJKUMAR JAIN	35
3	MOHIT SANJAY BOTRA	SANJAY BOTRA	49
4	NAMAN MANOJKUMAR JAIN	MANOJKUMAR JAIN	35
5	MANAS RAMESHKUMAR SANKLECHA	RAMESHKUMAR SANKLECHA	38
6	AKSHAT JAYVANT JAIN	JAYVANT JAIN	49
7	DISHANK PRAVIN HARAN	PRAVIN HARAN	44
8	MANTHAN RUPESH JAIN	RUPESH JAIN	41
9	KAVYA NARENDRA JAIN	NARENDRA JAIN	43
10	VARUN MOHANLAL JAIN	MOHANLAL JAIN	61
11	RAJ YOGESH SHAH	YOGESH SHAH	47
12	CHAYAN ANIL JAIN	ANIL JAIN	63
13	PARTH VISHALKUMAR SHAH	VISHALKUMAR SHAH	62
14	OM PAVANKUMAR SHETIYA	PAVANKUMAR SHETIYA	50

67. List all rooms that are fully occupied (i.e., where the number of students equals the room capacity).

```sql
SELECT r.room_number
FROM Rooms r
JOIN (
    SELECT room_number, COUNT(student_id) AS occupied_count
    FROM Student_room_assignment
    GROUP BY room_number
```

```
) AS occupied ON r.room_number = occupied.room_number
WHERE r.capacity = occupied.occupied_count;
```

Rooms (22r × 1c)

#	room_number 🔑
1	3
2	4
3	6
4	7
5	8
6	9
7	10
8	11
9	12
10	13
11	16
12	17
13	18
14	20

Found rows: 113   Warnings: 0   Duratio

68. Get the names of students along with their course who have pending fees.

```
SELECT s.name AS student_name, s.course, f.pending
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
WHERE f.pending > 0;
```

Students (0r × 3c)

#	student_name	course	pending

69. Retrieve the names of all employees and the total number of years they have been working in the hostel (based on the date of joining).

```
SELECT name AS employee_name, TIMESTAMPDIFF(YEAR, date_of_join, CURDATE()) AS
years_worked
FROM Employees;
```

Employees (8r × 2c)

#	employee_name	years_worked
1	VIRENDRA VYAS	7
2	BAJRANG SALGAR	6
3	SANJU MAHARAJ	7
4	SHAILESH RATHOD	10
5	HERMANT SINGH	6
6	MOHANLAL PANDEY	6
7	YASHWANT RAO	10
8	NILESH PAWAR	9

70. List all students who are staying in a specific hostel branch (e.g., hostel_id = "SAB").

```
SELECT *
FROM Students
WHERE hostel_id = "SAB";
```

Students (113r × 10c)

#	student_id	name	address	age	course	student_phone_number	dependent_phone_number	date_of_join	date_of_leave
1	PUB21100420	YASH VIJAY KHATOR	BHIWANDI	23	BCOM	8677255591	7446380546	2022-06-17	2025-07-14
2	PUB22202070	DAKSH MANOJKUMAR JAIN	RATLAM	20	CFA	1981284522	6234025566	2022-11-21	2023-08-09
3	SAB22203002	MOHIT SANJAY BOTRA	NAGPUR	19	BFM	6794237750	5710208104	2022-09-18	2026-04-13
4	SAB22203003	NAMAN MANOJKUMAR JAIN	CHENNAI	19	BMM	6376970462	9037417829	2023-03-03	2024-07-02
5	SAB22203004	MANAS RAMESHKUMAR SANKLECHA	BHIWANDI	20	CFA	8020778628	4564065509	2022-10-22	2024-01-15
6	SAB22203012	AKSHAT JAYVANT JAIN	JODHPUR	19	BTECH	7931532782	6341978051	2023-01-08	2026-12-18
7	SAB22203015	DISHANK PRAVIN HARAN	JAIPUR	20	BMM	4623178280	7560370773	2022-01-21	2027-05-22
8	SAB22203016	MANTHAN RUPESH JAIN	NAGOTNA	17	BCA	1387694805	6170934569	2023-05-28	2026-11-08
9	SAB22203017	KAVYA NARENDRA JAIN	AKOLA	18	BBA	1106043586	2577958071	2023-03-06	2025-10-15
10	SAB22203020	VARUN MOHANLAL JAIN	OOTY	20	BAF	4155038378	9472019070	2023-02-09	2026-05-09
11	SAB22203025	RAJ YOGESH SHAH	PUNE	22	BCOM	2626140250	1302589357	2022-09-11	2025-07-03
12	SAB22203026	CHAYAN ANIL JAIN	BHIWANDI	19	BBA	2775598877	9546792927	2022-02-25	2025-04-07
13	SAB22203028	PARTH VISHALKUMAR SHAH	SANGLI	17	BBA	5081292842	9524134213	2022-03-17	2027-04-16

71. Find the average salary of employees in each hostel branch.

```
SELECT hostel_id, AVG(salary) AS average_salary
FROM Employees
GROUP BY hostel_id;
```

Employees (1r × 2c)

#	hostel_id	average_salary
1	SAB	315,000.0

72. Retrieve the names of students along with the total amount of pending fees they have.

```sql
SELECT s.name AS student_name, SUM(f.pending) AS total_pending_fees
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
GROUP BY s.name;
```

Students (113r × 2c)

#	student_name	total_pending_fees
1	AAGAM AMIT CHHAJED	0.0
2	AAGAM NILESH JAIN	0.0
3	ABHISHEK SACHIN GANDHI	0.0
4	AKSHAT JAYVANT JAIN	0.0
5	AKSHAT MOHAN GANDHI	0.0
6	AKSHAT MUKESH DOSHI	0.0
7	AKSHAT RANJIT JAIN	0.0
8	AKSHAT VINOD LUNIA	0.0
9	ARIHANT MAHENDRA KOTECHA	0.0
10	ARYAN VISHAL KOTHARI	0.0
11	ATHARVA ASHISH SISODIYA	0.0
12	AVI AMIT SHAH	0.0
13	AYUSH JAYESH JAIN	0.0
14	AYUSH SANDEEP LUNIA	0.0

73. List all rooms that are currently empty (i.e., not assigned to any student).

```sql
SELECT room_number
FROM Rooms
WHERE room_number NOT IN (SELECT room_number FROM Student_room_assignment);
```

Rooms (4r × 1c)

#	room_number
1	1
2	2
3	25
4	26

74. Get the names of employees who have left the hostel after a specific date (e.g., '2023-01-01').

```
SELECT *
FROM Employees
WHERE date_of_leave > '2023-01-01';
```

#	employee_id	name	gender	phone_number	hostel_id	salary	date_of_join	date_of_leave
1	SAB2130469	NILESH PAWAR	M	9383311809	SAB	180,000.0	2015-02-01	2023-02-10

Employees (1r × 8c)

75. Retrieve the names of students along with the number of dependents they have.

```
SELECT s.name AS student_name, COUNT(d.student_id) AS num_dependents
FROM Students s
LEFT JOIN Dependents d ON s.student_id = d.student_id
GROUP BY s.name;
```

Students (113r × 2c)

#	student_name	num_dependents
1	AAGAM AMIT CHHAJED	1
2	AAGAM NILESH JAIN	1
3	ABHISHEK SACHIN GANDHI	1
4	AKSHAT JAYVANT JAIN	1
5	AKSHAT MOHAN GANDHI	1
6	AKSHAT MUKESH DOSHI	1
7	AKSHAT RANJIT JAIN	1
8	AKSHAT VINOD LUNIA	1
9	ARIHANT MAHENDRA KOTECHA	1
10	ARYAN VISHAL KOTHARI	1
11	ATHARVA ASHISH SISODIYA	1
12	AVI AMIT SHAH	1
13	AYUSH JAYESH JAIN	1
14	AYUSH SANDEEP LUNIA	1

76. List all students who have not paid any fees yet.

```
SELECT s.name AS student_name
FROM Students s
```

```
LEFT JOIN Fees f ON s.student_id = f.student_id
WHERE f.student_id IS NULL;
```

Students (0r × 1c)

#	student_name

77. Find the total number of employees in each hostel branch.

```
SELECT hostel_id, COUNT(*) AS total_employees
FROM Employees
GROUP BY hostel_id;
```

Employees (1r × 2c)

#	hostel_id	total_employees
1	SAB	8

78. Retrieve the names of students along with the number of rooms they are assigned to.

```
SELECT s.name AS student_name, COUNT(r.room_number) AS num_rooms_assigned
FROM Students s
LEFT JOIN Student_room_assignment rsa ON s.student_id = rsa.student_id
LEFT JOIN Rooms r ON rsa.room_number = r.room_number
GROUP BY s.name;
```

Students (113r × 2c)

#	student_name	num_rooms_assigned
1	AAGAM AMIT CHHAJED	1
2	AAGAM NILESH JAIN	1
3	ABHISHEK SACHIN GANDHI	1
4	AKSHAT JAYVANT JAIN	1
5	AKSHAT MOHAN GANDHI	1
6	AKSHAT MUKESH DOSHI	1
7	AKSHAT RANJIT JAIN	1
8	AKSHAT VINOD LUNIA	1
9	ARIHANT MAHENDRA KOTECHA	1
10	ARYAN VISHAL KOTHARI	1
11	ATHARVA ASHISH SISODIYA	1
12	AVI AMIT SHAH	1
13	AYUSH JAYESH JAIN	1
14	AYUSH SANDEEP LUNIA	1

79. List all dependents along with the names of their corresponding students.

```sql
SELECT d.*, s.name AS student_name
FROM Dependents d
JOIN Students s ON d.student_id = s.student_id;
```

Dependents (113r × 6c)

#	student_id	dependent_phone_number	name	age	relation	student_name
1	PUB21100420	7446380546	VIJAY KHATOR	59	FATHER	YASH VIJAY KHATOR
2	PUB22202070	6234025566	MANOJKUMAR JAIN	35	FATHER	DAKSH MANOJKUMAR JAIN
3	SAB22203002	5710208104	SANJAY BOTRA	49	FATHER	MOHIT SANJAY BOTRA
4	SAB22203003	9037417829	MANOJKUMAR JAIN	35	FATHER	NAMAN MANOJKUMAR JAIN
5	SAB22203004	4564065509	RAMESHKUMAR SANKLECHA	38	FATHER	MANAS RAMESHKUMAR SANKLECHA
6	SAB22203012	6341978051	JAYVANT JAIN	49	FATHER	AKSHAT JAYVANT JAIN
7	SAB22203015	7560370773	PRAVIN HARAN	44	FATHER	DISHANK PRAVIN HARAN
8	SAB22203016	6170934569	RUPESH JAIN	41	FATHER	MANTHAN RUPESH JAIN
9	SAB22203017	2577958071	NARENDRA JAIN	43	FATHER	KAVYA NARENDRA JAIN
10	SAB22203020	9472019070	MOHANLAL JAIN	61	FATHER	VARUN MOHANLAL JAIN
11	SAB22203025	1302589357	YOGESH SHAH	47	FATHER	RAJ YOGESH SHAH
12	SAB22203026	9546792927	ANIL JAIN	63	FATHER	CHAYAN ANIL JAIN
13	SAB22203028	9524134213	VISHALKUMAR SHAH	62	FATHER	PARTH VISHALKUMAR SHAH
14	SAB22203033	8028056189	PAVANKUMAR SHETIYA	50	FATHER	OM PAVANKUMAR SHETIYA

80. Retrieve the names of students along with the total amount of fees they have paid till date.

```sql
SELECT s.name AS student_name, SUM(f.paid_till_date) AS total_fees_paid
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
GROUP BY s.name;
```

Students (113r × 2c)

#	student_name	total_fees_paid
1	AAGAM AMIT CHHAJED	20,240,122
2	AAGAM NILESH JAIN	20,240,123
3	ABHISHEK SACHIN GANDHI	20,240,114
4	AKSHAT JAYVANT JAIN	20,240,115
5	AKSHAT MOHAN GANDHI	20,240,108
6	AKSHAT MUKESH DOSHI	20,240,117
7	AKSHAT RANJIT JAIN	20,240,126
8	AKSHAT VINOD LUNIA	20,240,113
9	ARIHANT MAHENDRA KOTECHA	20,240,121
10	ARYAN VISHAL KOTHARI	20,240,106
11	ATHARVA ASHISH SISODIYA	20,240,106
12	AVI AMIT SHAH	20,240,110
13	AYUSH JAYESH JAIN	20,231,225
14	AYUSH SANDEEP LUNIA	20,231,223

81. Find the average age of students in each hostel branch.

```sql
SELECT hostel_id, AVG(age) AS average_age
FROM Students
GROUP BY hostel_id;
```

Students (1r × 2c)

#	hostel_id	average_age
1	SAB	19.5044

82. Retrieve the names of students who have joined the hostel after a specific date (e.g., '2023-01-01').

```sql
SELECT name
FROM Students
WHERE date_of_join > '2023-01-01';
```

Students (35r × 1c)

#	name
1	NAMAN MANOJKUMAR JAIN
2	AKSHAT JAYVANT JAIN
3	MANTHAN RUPESH JAIN
4	KAVYA NARENDRA JAIN
5	VARUN MOHANLAL JAIN
6	OM PAVANKUMAR SHETIYA
7	KRISH AMIT SHAH
8	DIYANSH NARENDRA JAIN
9	AYUSH JAYESH JAIN
10	AKSHAT RANJIT JAIN
11	HARSH DIVESH PORWAL
12	YASH MAHENDRA JAIN
13	JAINAM AMIT GOLECHA
14	SHREYANS PRITAM BORA

83. List all rooms along with their capacities and the number of students currently assigned to each room.

```sql
SELECT r.room_number, r.capacity, COUNT(sra.student_id) AS
num_students_assigned
FROM Rooms r
LEFT JOIN Student_room_assignment sra ON r.room_number = sra.room_number
GROUP BY r.room_number;
```

Rooms (37r × 3c)

#	room_number	capacity	num_students_assigned
1	1	0	0
2	2	0	0
3	3	3	3
4	4	4	4
5	5	3	2
6	6	4	4
7	7	4	4
8	8	4	4
9	9	4	4
10	10	4	4
11	11	4	4
12	12	4	4
13	13	3	3
14	14	0	1

84. Retrieve the names of employees along with their genders and the hostel branch they are assigned to.

```sql
SELECT e.name AS employee_name, e.gender, h.name AS hostel_branch
FROM Employees e
JOIN Hostel_Branch h ON e.hostel_id = h.hostel_id;
```

Employees (8r × 3c)

#	employee_name	gender	hostel_branch
1	VIRENDRA VYAS	M	SMJV Sandhurst Road
2	BAJRANG SALGAR	M	SMJV Sandhurst Road
3	SANJU MAHARAJ	M	SMJV Sandhurst Road
4	SHAILESH RATHOD	M	SMJV Sandhurst Road
5	HERMANT SINGH	M	SMJV Sandhurst Road
6	MOHANLAL PANDEY	M	SMJV Sandhurst Road
7	YASHWANT RAO	M	SMJV Sandhurst Road
8	NILESH PAWAR	M	SMJV Sandhurst Road

85. List all students who have dependent(s) and their respective dependent(s) names.

```sql
SELECT s.name AS student_name, d.name AS dependent_name
FROM Students s
JOIN Dependents d ON s.student_id = d.student_id;
```

Students (113r × 2c)

#	student_name	dependent_name
1	YASH VIJAY KHATOR	VIJAY KHATOR
2	DAKSH MANOJKUMAR JAIN	MANOJKUMAR JAIN
3	MOHIT SANJAY BOTRA	SANJAY BOTRA
4	NAMAN MANOJKUMAR JAIN	MANOJKUMAR JAIN
5	MANAS RAMESHKUMAR SANKLECHA	RAMESHKUMAR SANKLECHA
6	AKSHAT JAYVANT JAIN	JAYVANT JAIN
7	DISHANK PRAVIN HARAN	PRAVIN HARAN
8	MANTHAN RUPESH JAIN	RUPESH JAIN
9	KAVYA NARENDRA JAIN	NARENDRA JAIN
10	VARUN MOHANLAL JAIN	MOHANLAL JAIN
11	RAJ YOGESH SHAH	YOGESH SHAH
12	CHAYAN ANIL JAIN	ANIL JAIN
13	PARTH VISHALKUMAR SHAH	VISHALKUMAR SHAH
14	OM PAVANKUMAR SHETIYA	PAVANKUMAR SHETIYA

86. Find the total number of rooms in each hostel branch.

```sql
SELECT h.name AS hostel_branch, COUNT(*) AS total_rooms
FROM Hostel_Branch h
```

```
JOIN Rooms r ON h.hostel_id = r.hostel_id
GROUP BY h.name;
```

Hostel_Branch (1r × 2c)

#	hostel_branch	total_rooms
1	SMJV Sandhurst Road	37

87. Retrieve the names of students along with the total amount of fees they have paid in a specific month (e.g., January 2023).

```
SELECT s.name AS student_name, SUM(f.amount) AS total_fees_paid
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
WHERE EXTRACT(MONTH FROM f.date) = 1 AND EXTRACT(YEAR FROM f.date) = 2023
GROUP BY s.name;
```

Students (0r × 2c)

#	student_name	total_fees_paid

88. List all employees who joined the hostel in a specific year (e.g., 2018) and are still working.

```
SELECT *
FROM Employees
WHERE EXTRACT(YEAR FROM date_of_join) = 2018 AND date_of_leave IS NULL;
```

Employees (0r × 8c)

#	employee_id	name	gender	phone_number	hostel_id	salary	date_of_join	date_of_leave

89. Find the names of students who have paid their fees using a specific mode of payment (e.g., 'Credit Card').

```
SELECT s.name AS student_name
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
WHERE f.mode_of_payment = 'Credit Card';
```

#	student_name

90. Retrieve the names of students who have left the hostel along with their departure dates.

```sql
SELECT name AS student_name, date_of_leave
FROM Students
WHERE date_of_leave IS NOT NULL;
```

Students (113r × 2c)

#	student_name	date_of_leave
1	YASH VIJAY KHATOR	2025-07-14
2	DAKSH MANOJKUMAR JAIN	2023-08-09
3	MOHIT SANJAY BOTRA	2026-04-13
4	NAMAN MANOJKUMAR JAIN	2024-07-02
5	MANAS RAMESHKUMAR SANKLECHA	2024-01-15
6	AKSHAT JAYVANT JAIN	2026-12-18
7	DISHANK PRAVIN HARAN	2027-05-22
8	MANTHAN RUPESH JAIN	2026-11-08
9	KAVYA NARENDRA JAIN	2025-10-15
10	VARUN MOHANLAL JAIN	2026-05-09
11	RAJ YOGESH SHAH	2025-07-03
12	CHAYAN ANIL JAIN	2025-04-07
13	PARTH VISHALKUMAR SHAH	2027-04-16
14	OM PAVANKUMAR SHETIYA	2026-07-14

91. Find the total number of students in each course residing in each hostel branch.

```sql
SELECT hostel_id, course, COUNT(*) AS num_students
FROM Students
```

```
GROUP BY hostel_id, course;
```

Students (17r × 3c)

#	hostel_id	course	num_students
1	SAB	BAF	19
2	SAB	BBA	16
3	SAB	BBI	13
4	SAB	BCA	5
5	SAB	BCOM	11
6	SAB	BFM	13
7	SAB	BLS	1
8	SAB	BMM	7
9	SAB	BMS	2
10	SAB	BSC	1
11	SAB	BTECH	8
12	SAB	BVOC	1
13	SAB	CA	5
14	SAB	CFA	3

92. Retrieve the names of students along with the total amount of pending fees they have.

```
SELECT s.name AS student_name, SUM(f.pending) AS total_pending_fees
FROM Students s
JOIN Fees f ON s.student_id = f.student_id
GROUP BY s.name;
```

Students (113r × 2c)

#	student_name	total_pending_fees
1	AAGAM AMIT CHHAJED	0.0
2	AAGAM NILESH JAIN	0.0
3	ABHISHEK SACHIN GANDHI	0.0
4	AKSHAT JAYVANT JAIN	0.0
5	AKSHAT MOHAN GANDHI	0.0
6	AKSHAT MUKESH DOSHI	0.0
7	AKSHAT RANJIT JAIN	0.0
8	AKSHAT VINOD LUNIA	0.0
9	ARIHANT MAHENDRA KOTECHA	0.0
10	ARYAN VISHAL KOTHARI	0.0
11	ATHARVA ASHISH SISODIYA	0.0
12	AVI AMIT SHAH	0.0
13	AYUSH JAYESH JAIN	0.0
14	AYUSH SANDEEP LUNIA	0.0

93. List all rooms along with the number of students assigned to each room, ordered by the number of students in descending order.

```sql
SELECT r.room_number, COUNT(sra.student_id) AS num_students_assigned
FROM Rooms r
LEFT JOIN Student_room_assignment sra ON r.room_number = sra.room_number
GROUP BY r.room_number
ORDER BY num_students_assigned DESC;
```

Rooms (37r × 2c)

#	room_number	num_students_assigned
1	29	6
2	28	5
3	4	4
4	20	4
5	21	4
6	6	4
7	7	4
8	8	4
9	9	4
10	10	4
11	11	4
12	12	4
13	30	4
14	31	4

94. Find the names of students who are assigned to rooms in a specific hostel branch (e.g., 'SAB').

```sql
SELECT s.name AS student_name
FROM Students s
JOIN Student_room_assignment sra ON s.student_id = sra.student_id
JOIN Hostel_Branch h ON sra.hostel_id = h.hostel_id
WHERE h.name = 'SAB';
```

Students (0r × 1c)
student_name

95. Retrieve the names of employees who have left the hostel along with their departure dates.

```sql
SELECT name AS employee_name, date_of_leave
FROM Employees
WHERE date_of_leave IS NOT NULL;
```

Employees (2r × 2c)

#	employee_name	date_of_leave
1	VIRENDRA VYAS	2022-10-05
2	NILESH PAWAR	2023-02-10

96. List all students who have dependent(s) older than 18 years.

```sql
SELECT s.name AS student_name
FROM Students s
JOIN Dependents d ON s.student_id = d.student_id
WHERE d.age > 18;
```

Students (113r × 1c)

#	student_name
1	YASH VIJAY KHATOR
2	DAKSH MANOJKUMAR JAIN
3	MOHIT SANJAY BOTRA
4	NAMAN MANOJKUMAR JAIN
5	MANAS RAMESHKUMAR SANKLECHA
6	AKSHAT JAYVANT JAIN
7	DISHANK PRAVIN HARAN
8	MANTHAN RUPESH JAIN
9	KAVYA NARENDRA JAIN
10	VARUN MOHANLAL JAIN
11	RAJ YOGESH SHAH
12	CHAYAN ANIL JAIN
13	PARTH VISHALKUMAR SHAH
14	OM PAVANKUMAR SHETIYA

97. Find the total amount of fees collected in each mode of payment.

```sql
SELECT mode_of_payment, SUM(amount) AS total_amount_collected
FROM Fees
GROUP BY mode_of_payment;
```

Fees (1r × 2c)

#	mode_of_payment	total_amount_collected
1	NFT	9,040,000

98. Retrieve the names of employees who have the highest salary in each hostel branch.

```sql
SELECT h.name AS hostel_branch, e.name AS employee_name, e.salary
FROM Employees e
JOIN Hostel_Branch h ON e.hostel_id = h.hostel_id
WHERE (e.hostel_id, e.salary) IN (
    SELECT hostel_id, MAX(salary)
    FROM Employees
    GROUP BY hostel_id
);
```

Employees (1r × 3c)

#	hostel_branch	employee_name	salary
1	SMJV Sandhurst Road	VIRENDRA VYAS	600,000.0

99. List all rooms along with the number of students assigned to each room and the hostel branch they belong to.

```sql
SELECT r.room_number, COUNT(sra.student_id) AS num_students_assigned, h.name
AS hostel_branch
FROM Rooms r
LEFT JOIN Student_room_assignment sra ON r.room_number = sra.room_number
JOIN Hostel_Branch h ON r.hostel_id = h.hostel_id
GROUP BY r.room_number, h.name;
```

Rooms (37r × 3c)

#	room_number	num_students_assigned	hostel_branch
1	1	0	SMJV Sandhurst Road
2	2	0	SMJV Sandhurst Road
3	3	3	SMJV Sandhurst Road
4	4	4	SMJV Sandhurst Road
5	5	2	SMJV Sandhurst Road
6	6	4	SMJV Sandhurst Road
7	7	4	SMJV Sandhurst Road
8	8	4	SMJV Sandhurst Road
9	9	4	SMJV Sandhurst Road
10	10	4	SMJV Sandhurst Road
11	11	4	SMJV Sandhurst Road
12	12	4	SMJV Sandhurst Road
13	13	3	SMJV Sandhurst Road
14	14	1	SMJV Sandhurst Road

100. Retrieve the names of students who have paid their fees in full (i.e., pending amount is 0).

```
SELECT s.name AS student_name FROM Students s JOIN Fees f ON s.student_id =
f.student_id WHERE f.pending = 0;
```

Students (113r × 1c)

#	student_name
1	YASH VIJAY KHATOR
2	DAKSH MANOJKUMAR JAIN
3	MOHIT SANJAY BOTRA
4	NAMAN MANOJKUMAR JAIN
5	MANAS RAMESHKUMAR SANKLECHA
6	AKSHAT JAYVANT JAIN
7	DISHANK PRAVIN HARAN
8	MANTHAN RUPESH JAIN
9	KAVYA NARENDRA JAIN
10	VARUN MOHANLAL JAIN
11	RAJ YOGESH SHAH
12	CHAYAN ANIL JAIN
13	PARTH VISHALKUMAR SHAH
14	OM PAVANKUMAR SHETIYA