

-- 1. List all members

```
SELECT * FROM member;
```

-- 2. Find how many members joined in July (any year)

```
SELECT COUNT(*) AS july_members  
FROM membership  
WHERE EXTRACT(MONTH FROM startdate) = 7;
```

-- 3. Find how many members are present in July (based on attendance)

```
SELECT COUNT(*) AS july_present_members  
FROM booking  
WHERE attendanceStatus = 'Present'  
AND EXTRACT(MONTH FROM bookingdate) = 7;
```

-- 4. Show all trainers and their specializations

```
SELECT name, specialization  
FROM trainer;
```

-- 5. List trainers who are available on '2025-07-01'

```
SELECT t.name, t.specialization, ta.starttime, ta.endtime  
FROM trainer t  
JOIN traineravailability ta ON t.trainerid = ta.trainerid  
WHERE ta.availabdate = '2025-07-01';
```

-- 6. Members with their chosen plan

```
SELECT m.name AS member_name, p.planname, p.price  
FROM membership ms  
JOIN member m ON ms.memberid = m.memberid  
JOIN plan p ON ms.planid = p.planid;
```

-- 7. Find members whose membership will expire in July

```
SELECT m.name, ms.enddate  
FROM membership ms  
JOIN member m ON ms.memberid = m.memberid  
WHERE EXTRACT(MONTH FROM ms.enddate) = 7;
```

-- 8. List classes scheduled in July with trainer names

```
SELECT c.classname, c.scheduleDate, t.name AS trainer_name  
FROM class c  
JOIN trainer t ON c.trainerid = t.trainerid  
WHERE EXTRACT(MONTH FROM c.scheduleDate) = 7;
```

-- 9. Find attendance status of each member in July

```
SELECT m.name, b.bookingdate, b.attendancestatus  
FROM booking b  
JOIN member m ON b.memberid = m.memberid  
WHERE EXTRACT(MONTH FROM b.bookingdate) = 7;
```

```
-- 10. Find classes that are fully booked (bookings = capacity)
SELECT c.classname, c.scheduleDate, COUNT(b.bookingid) AS total_bookings,
c.capacity
FROM class c
JOIN booking b ON c.classid = b.classid
GROUP BY c.classid
HAVING COUNT(b.bookingid) >= c.capacity;
```

```
-- 11. Total revenue collected in July
SELECT SUM(amountpaid) AS total_revenue
FROM payment
WHERE EXTRACT(MONTH FROM paymentdate) = 7;
```

```
-- 12. Revenue collected per plan type
SELECT p.planname, SUM(pay.amountpaid) AS revenue
FROM payment pay
JOIN membership ms ON pay.membershipid = ms.membershipid
JOIN plan p ON ms.planid = p.planid
GROUP BY p.planname
ORDER BY revenue DESC;
```

```
-- 13. Find members with no bookings
SELECT m.name
FROM member m
LEFT JOIN booking b ON m.memberid = b.memberid
WHERE b.memberid IS NULL;
```

```
-- 14. Find trainers who have not been assigned any class
SELECT t.name
FROM trainer t
LEFT JOIN class c ON t.trainerid = c.trainerid
WHERE c.trainerid IS NULL;
```

```
-- 15. Find the most popular trainer (highest number of classes)
SELECT t.name, COUNT(c.classid) AS total_classes
FROM trainer t
JOIN class c ON t.trainerid = c.trainerid
GROUP BY t.name
ORDER BY total_classes DESC
LIMIT 1;
```

```
-- 16. Find the most attended member (highest presence in bookings)
SELECT m.name, COUNT(*) AS total_present
FROM booking b
JOIN member m ON b.memberid = m.memberid
WHERE b.attendancestatus = 'Present'
```

```
GROUP BY m.name  
ORDER BY total_present DESC  
LIMIT 1;
```

```
-- 17. Find members paying more than 10,000 in a single payment  
SELECT m.name, p.amountpaid  
FROM payment p  
JOIN membership ms ON p.membershipid = ms.membershipid  
JOIN member m ON ms.memberid = m.memberid  
WHERE p.amountpaid > 10000;
```

```
-- 18. Find members enrolled in Premium Plans  
SELECT m.name, pl.planname  
FROM membership ms  
JOIN member m ON ms.memberid = m.memberid  
JOIN plan pl ON ms.planid = pl.planid  
WHERE pl.planname LIKE '%Premium%';
```

```
-- 19. Attendance summary (Present/Absent/Pending count in July)  
SELECT attendancestatus, COUNT(*) AS total  
FROM booking  
WHERE EXTRACT(MONTH FROM bookingdate) = 7  
GROUP BY attendancestatus;
```

```
-- 20. Show members with upcoming classes within next 7 days  
SELECT m.name, c.classname, c.scheduledate  
FROM booking b  
JOIN member m ON b.memberid = m.memberid  
JOIN class c ON b.classid = c.classid  
WHERE c.scheduledate BETWEEN CURRENT_DATE AND CURRENT_DATE +  
INTERVAL '7 days';
```