```sql
--Tasks 3: Aggregate functions, Having, Order By, GroupBy and Joins

--1. Write a SQL query to List Events and Their Average Ticket Prices.
select event_name, avg(ticket_price) as avg_ticket_price from event group by
  event_name;
```

	event_name	avg_ticket_pric
1	Bollywood Concert	1600.000000
2	Carnatic Music Night	1200.000000
3	Coldplay	1400.000000
4	Comedy Show	800.000000
5	Cricket Test Match	3000.000000
6	Drama Play	2400.000000
7	Hockey Tournament	1200.000000
8	IPL Match	2000.000000
9	Kabaddi League	1000.000000
10	Tamil Movie Premiere	600.000000

```sql
--2. Write a SQL query to Calculate the Total Revenue Generated by Events.
select e.event_name, sum(b.total_cost) as total_revenue from booking b join event e on
   b.event_id = e.event_id group by e.event_name;
```

	event_name	total_revenue
1	Bollywood Concert	320.00
2	Carnatic Music Night	120.00
3	Coldplay	280.00
4	Comedy Show	120.00
5	Cricket Test Match	750.00
6	Drama Play	240.00
7	Hockey Tournament	60.00
8	IPL Match	200.00
9	Kabaddi League	150.00
10	Tamil Movie Premiere	30.00

```sql
--3. Write a SQL query to find the event with the highest ticket sales.
select top 1 e.event_name, sum(b.num_tickets) as total_tickets_sold from booking b
  join event e on b.event_id = e.event_id
group by e.event_name  order by total_tickets_sold desc;
```

	event_name	total_tickets_sold
1	Cricket Test Match	5

```sql
--4. Write a SQL query to Calculate the Total Number of Tickets Sold for Each
  Event.
select e.event_name, sum(b.num_tickets) as total_tickets_sold from booking b join
  event e on b.event_id = e.event_id group by e.event_name;
```

	event_name	total_tickets_sold
1	Bollywood Concert	4
2	Carnatic Music Night	2
3	Coldplay	4
4	Comedy Show	3
5	Cricket Test Match	5
6	Drama Play	2
7	Hockey Tournament	1
8	IPL Match	2
9	Kabaddi League	3
10	Tamil Movie Premiere	1

```sql
--5. Write a SQL query to Find Events with No Ticket Sales.
select e.event_name from event e left join booking b on e.event_id = b.event_id
  where b.event_id is null;
```

event_name

```sql
--6. Write a SQL query to Find the User Who Has Booked the Most Tickets.
select top 1 c.customer_name, sum(b.num_tickets) as total_tickets from booking b
  join customer c on b.customer_id = c.customer_id
group by c.customer_name order by total_tickets desc;
```

	customer_name	total_tickets
1	Neha	5

```sql
--7. Write a SQL query to List Events and the total number of tickets sold for each
   month.
select month(e.event_date) as event_month, year(e.event_date) as event_year,
  e.event_name, sum(b.num_tickets) as total_tickets
from booking b join event e on b.event_id = e.event_id
group by month(e.event_date), year(e.event_date), e.event_name
order by event_year, event_month;
```

	event_month	event_year	event_name	total_tickets
1	4	2025	IPL Match	2
2	5	2025	Bollywood Concert	4
3	6	2025	Tamil Movie Premiere	1
4	7	2025	Kabaddi League	3
5	8	2025	Carnatic Music Night	2
6	9	2025	Cricket Test Match	5
7	10	2025	Drama Play	2
8	11	2025	Coldplay	4
9	12	2025	Hockey Tournament	1
10	1	2026	Comedy Show	3

```sql
--8. Write a SQL query to calculate the average Ticket Price for Events in Each
  Venue.
select v.venue_name, avg(e.ticket_price) as avg_ticket_price from event e join
  venue v on e.venue_id = v.venue_id group by v.venue_name;
```

	venue_name	avg_ticket_price
1	Bangalore Palace	1600.000000
2	DY Patil Stadium	1400.000000
3	Eden Gardens	3000.000000
4	EKA Arena	1000.000000
5	Habitat Centre	800.000000
6	IMAX Theatre	2400.000000
7	Music Academy	1200.000000
8	National Stadium	1200.000000
9	Sathyam Cinemas	600.000000
10	Wankhede Stadium	2000.000000

```sql
--9. Write a SQL query to calculate the total Number of Tickets Sold for Each Event
   Type.
select e.event_type, sum(b.num_tickets) as total_tickets_sold from booking b join
  event e on b.event_id = e.event_id group by e.event_type;
```

	event_type	total_tickets_sold
1	concert	10
2	movie	6
3	sports	11

```sql
--10. Write a SQL query to calculate the total Revenue Generated by Events in Each Year.

select year(e.event_date) as event_year, sum(b.total_cost) as total_revenue from
booking b join event e on b.event_id = e.event_id
 group by year(e.event_date) order by event_year;
```

	event_year	total_revenue
1	2025	2150.00
2	2026	120.00

```sql
--11. Write a SQL query to list users who have booked tickets for multiple events.

select c.customer_name, count(distinct b.event_id) as total_events_booked from booking
  b join customer c on b.customer_id = c.customer_id group by c.customer_name having
  count(distinct b.event_id) > 1;
```

customer_name	total_events_booked

```sql
--12. Write a SQL query to calculate the Total Revenue Generated by Events for Each
   User.
select c.customer_name, sum(b.total_cost) as total_revenue from booking b join
  customer c on b.customer_id = c.customer_id
group by c.customer_name order by total_revenue desc;
```

	customer_name	total_revenue
1	Neha	750.00
2	Priya	320.00
3	Kavita	280.00
4	Rohan	240.00
5	Amit	200.00
6	Sita	150.00
7	Vikram	120.00
8	Divya	120.00
9	Arjun	60.00
10	Rahul	30.00

```sql
--13. Write a SQL query to calculate the Average Ticket Price for Events in Each
  Category and Venue.
select e.event_type, v.venue_name, avg(e.ticket_price) as avg_ticket_price
from event  e join venue v on e.venue_id = v.venue_id
group by  e.event_type,  v.venue_name;
```

	event_type	venue_name	avg_ticket_price
1	concert	Bangalore Palace	1600.000000
2	concert	DY Patil Stadium	1400.000000
3	sports	Eden Gardens	3000.000000
4	sports	EKA Arena	1000.000000
5	movie	Habitat Centre	800.000000
6	movie	IMAX Theatre	2400.000000
7	concert	Music Academy	1200.000000
8	sports	National Stadium	1200.000000
9	movie	Sathyam Cinemas	600.000000
10	sports	Wankhede Stadium	2000.000000

```sql
--14. Write a SQL query to list Users and the Total Number of Tickets They've
  Purchased in the Last 30 Days.
select  c.customer_name,  sum(b.num_tickets)  as  total_tickets
from booking b join customer c on b.customer_id = c.customer_id
where b.booking_date  >= dateadd(day, -30, getdate())
group by  c.customer_name;
```

	customer_name	total_tickets
1	Amit	2
2	Arjun	1
3	Divya	3
4	Kavita	4
5	Neha	5
6	Priya	4
7	Rahul	1
8	Rohan	2
9	Sita	3
10	Vikram	2