

# **GANESH CHATURTHI FESTIVAL MANAGEMENT AND ANALYSIS SYSTEM WITH SQL**



*Presented by: Nitish Kumar*

# THE DATABASE CONTAINS THE FOLLOWING TABLES:

- \***PARTICIPANTS**
- \***EVENTS**
- \***IDOLS**
- \***DONATIONS**
- \***REGISTRATION**
- \***FEEDBACK**

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## Participants Table:

ParticipantID	Name	Age	ContactNumber	Address	Email
1	Amit Patel	28	555-555-5555	789 Oak St, City	<a href="mailto:amit.patel@email.com">amit.patel@email.com</a>
2	Priya Sharma	32	777-777-7777	101 Maple St, City	<a href="mailto:priya.sharma@email.com">priya.sharma@email.com</a>
3	Rahul Singh	29	444-444-4444	321 Pine St, City	<a href="mailto:rahul.singh@email.com">rahul.singh@email.com</a>
4	Deepika Reddy	27	666-666-6666	555 Cedar St, City	<a href="mailto:deepika.reddy@email.com">deepika.reddy@email.com</a>
5	Sanjay Verma	35	333-333-3333	222 Birch St, City	<a href="mailto:sanjay.verma@email.com">sanjay.verma@email.com</a>
6	Meera Kapoor	31	888-888-8888	999 Spruce St, City	<a href="mailto:meera.kapoor@email.com">meera.kapoor@email.com</a>
7	Rajesh Kumar	30	222-222-2222	777 Fir St, City	<a href="mailto:rajesh.kumar@email.com">rajesh.kumar@email.com</a>

8	Neha Mishra	26	999-999-9999	456 Redwood St, City	<a href="mailto:neha.mishra@email.com">neha.mishra@email.com</a>
9	Vikram Singh	33	111-111-1111	123 Sequoia St, City	<a href="mailto:vikram.singh@email.com">vikram.singh@email.com</a>
10	Pooja Gupta	29	777-888-9999	789 Cedar St, City	<a href="mailto:pooja.gupta@email.com">pooja.gupta@email.com</a>

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### Events Table:

EventID	EventName	EventDate	Location	OrganizerID
1	Ganesh Chaturthi Puja	2023-09-10	Community Hall	1
2	Ganesh Procession	2023-09-15	Main Street	2
3	Ganesh Visarjan Ceremony	2023-09-20	Riverside Ghat	3
4	Ganesh Idol Decoration Contest	2023-09-12	Local Park	4
5	Ganesh Cultural Night	2023-09-17	Town Square	5
6	Ganesh Art and Craft Exhibition	2023-09-13	Community Center	6
7	Ganesh Chaturthi Food Festival	2023-09-14	City Park	7
8	Ganesh Chaturthi Musical Concert	2023-09-18	Open Amphitheater	8
9	Ganesh Chaturthi Storytelling Workshop	2023-09-11	Local Library	9
10	Ganesh Chaturthi Charity Drive	2023-09-16	Various Locations	10

## Idols Table:

IdolID	IdolName	Height	Weight	Material	Price
1	Ganesh Idol 1	2.5	10.5	Clay	100.00
2	Ganesh Idol 2	3.0	12.0	Plaster of Paris	75.00
3	Ganesh Idol 3	2.0	8.0	Marble	250.00
4	Ganesh Idol 4	2.8	11.5	Wood	120.00
5	Ganesh Idol 5	2.2	9.0	Brass	180.00
6	Ganesh Idol 6	2.6	10.0	Bronze	200.00
7	Ganesh Idol 7	3.2	14.0	Stone	300.00
8	Ganesh Idol 8	2.4	9.5	Copper	160.00
9	Ganesh Idol 9	2.7	11.0	Terracotta	90.00
10	Ganesh Idol 10	2.3	9.8	Aluminum	140.00

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## Donations Table:

DonationID	DonorID	Amount	DonationDate
1	1	500.00	2023-09-05
2	2	250.00	2023-09-12
3	3	1000.00	2023-09-15
4	4	300.00	2023-09-18
5	5	750.00	2023-09-20
6	6	200.00	2023-09-25
7	7	450.00	2023-09-28
8	8	800.00	2023-09-30
9	9	150.00	2023-10-02
10	10	600.00	2023-10-05

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## Registration Table:

RegistrationID	ParticipantID	EventID	RegistrationDate
1	1	1	2023-09-02
2	2	2	2023-09-10
3	3	3	2023-08-25
4	4	4	2023-08-28
5	5	5	2023-09-01
6	6	6	2023-09-15
7	7	7	2023-09-20
8	8	8	2023-09-22
9	9	9	2023-09-28
10	10	10	2023-10-03

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## Feedback Table:

FeedbackID	ParticipantID	EventID	Rating	Comments
1	1	1	5	Great event!
2	2	2	4	Enjoyed the procession.
3	3	1	4	Beautiful decorations.
4	4	2	3	Crowded but fun.
5	5	1	5	Loved the puja ceremony.
6	6	2	4	Great music during the procession.
7	7	1	3	Wish there were more food stalls.
8	8	2	4	Well-organized event.
9	9	1	5	Will definitely attend next year!
10	10	2	3	Good community spirit.

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# 1. Retrieve the names and contact numbers of all participants?

```
SELECT Name, ContactNumber FROM Participants;
```

# OUTPUT

Name	ContactNumber
Amit Patel	555-555-5555
Priya Sharma	777-777-7777
Rahul Singh	444-444-4444
Deepika Reddy	666-666-6666
Sanjay Verma	333-333-3333
Meera Kapoor	888-888-8888
Rajesh Kumar	222-222-2222
Neha Mishra	999-999-9999
Vikram Singh	111-111-1111
Pooja Gupta	777-888-9999

## 2. Find the total amount donated for the festival?

```
SELECT SUM(Amount) AS TOTAL_AMOUNT FROM Donations;
```

# OUTPUT

```
+-----+  
| TOTAL_AMOUNT |  
+-----+  
|      4300.00 |  
+-----+
```

### 3. List the events organized by participants under the age of 30?

```
SELECT E.EventName, P.Name, P.Age  
FROM Events AS E  
JOIN Participants AS P ON P.ParticipantID = E.OrganizerID  
WHERE P.Age < 30;
```

# OUTPUT

EventName	Name	Age
Ganesh Chaturthi Puja	Amit Patel	28
Ganesh Visarjan Ceremony	Rahul Singh	29
Ganesh Idol Decoration	Deepika Reddy	27
Ganesh Chaturthi Storyt	Vikram Singh	33
Ganesh Chaturthi Charity	Pooja Gupta	29

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# 4. Calculate the average rating for each event along with the event name?

```
SELECT E.EventName, AVG(F.Rating) AS Average_rating  
FROM Events AS E  
JOIN Feedback AS F USING(EventID)  
GROUP BY E.EventName  
ORDER BY AVG(F.Rating) DESC;
```

# OUTPUT

EventName	Average_rating
Ganesh Chaturthi Puja	4.67
Ganesh Cultural Night	3.50
Ganesh Procession	3.50
Ganesh Chaturthi Musical	3.50
Ganesh Art and Craft	3.50
Ganesh Idol Decoration	3.50
Ganesh Chaturthi Charity	3.00
Ganesh Visarjan Ceremony	3.00
Ganesh Chaturthi Food	3.00
Ganesh Chaturthi Storyt	3.00

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# 5. Retrieve the names and details of the idols that cost more than \$150?

```
SELECT * FROM Idols  
WHERE Price > 150;
```

# OUTPUT

IdolID	IdolName	Height	Weight	Material	Price
3	Ganesh Idol 3	2.00	8.00	Marble	250.00
7	Ganesh Idol 7	3.20	14.00	Stone	300.00

## 6. Calculate the total amount donated by each participant?

```
SELECT P.Name, SUM(D.Amount) AS TOTAL_AMOUNT  
FROM Donations AS D  
JOIN Participants AS P ON D.DonorID = P.ParticipantID  
GROUP BY P.Name  
ORDER BY SUM(D.Amount) DESC;
```

# OUTPUT

Name	TOTAL_AMOUNT
Neha Mishra	800.00
Sanjay Verma	750.00
Rahul Singh	1000.00
Amit Patel	500.00
Deepika Reddy	300.00
Pooja Gupta	600.00
Rajesh Kumar	450.00
Vikram Singh	150.00
Priya Sharma	250.00
Meera Kapoor	200.00

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# 7. Find the event with the most registrations?

```
SELECT E.EventID, E.EventName  
FROM Events AS E  
JOIN Registration AS R USING(EventID)  
GROUP BY E.EventID, E.EventName  
HAVING MAX(R.RegistrationID)  
LIMIT 1;
```

# OUTPUT

```
+-----+-----+
| EventID | EventName           |
+-----+-----+
| 1       | Ganesh Chaturthi Puja |
+-----+-----+
```

## 8. List the top 3 idols by weight?

```
SELECT IdolID, IdolName, MAX(Weight) AS Weight  
FROM Idols  
GROUP BY IdolID, IdolName  
ORDER BY MAX(Weight) DESC  
LIMIT 3;
```

# OUTPUT

IdolID	IdolName	Weight
7	Ganesh Idol 7	14.00
2	Ganesh Idol 2	12.00
4	Ganesh Idol 4	11.50

# 9. Find the youngest and oldest participants?

```
WITH RankAge AS
(
    SELECT Name, Age,
           ROW_NUMBER() OVER(ORDER BY Age ASC) AS Youngest_Rank,
           ROW_NUMBER() OVER(ORDER BY Age DESC) AS Oldest_Rank
    FROM Participants
)
SELECT Youngest.Name AS Youngest_Participant, Youngest.Age AS Young_Age,
       Oldest.Name AS Oldest_Participant, Oldest.Age AS Old_Age
  FROM RankAge AS Youngest
 JOIN RankAge AS Oldest
ON Youngest.Youngest_Rank = 1 AND Oldest.Oldest_Rank = 1;
```

# OUTPUT

Youngest_Participant	Young_Age	Oldest_Participant	Old_Age	
Deepika Reddy	27	Sanjay Verma	35	

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# 10. Find the events that had the highest and lowest average ratings based on feedback?

```
WITH EventAverageRatings AS
(
    SELECT e.EventName, AVG(f.Rating) AS Average_Rating
    FROM Events AS e
    JOIN Feedback AS f USING(EventID)
    GROUP BY e.EventName
)
SELECT HighRated.EventName AS Highest_Rated_Event,
       HighRated.Average_Rating AS Highest_Average_Rating,
       LowRated.EventName AS Lowest_Rated_Event,
       LowRated.Average_Rating AS Lowest_Average_Rating
FROM
(
    SELECT EventName,
           Average_Rating,
           DENSE_RANK() OVER(ORDER BY Average_Rating DESC) AS Highest_Rank
    FROM EventAverageRatings
) AS HighRated
```

```
INNER JOIN

(
    SELECT EventName,
           Average_Rating,
           DENSE_RANK() OVER(ORDER BY Average_Rating ASC) AS Lowest_Rank
    FROM EventAverageRatings
) AS LowRated

ON Highest_Rank = 1 AND Lowest_Rank = 1;
```

# OUTPUT

Highest_Rated_Event	Highest_Average_Rating	Lowest_Rated_Event	Lowest_Average_Rating
Ganesh Chaturthi Puja	4.3333	Ganesh Chaturthi Food Festival	3.3333

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# 11. Calculate the difference in days between the event date and the registration date for each registration?

```
SELECT EventID,  
       EventDate,  
       RegistrationDate,  
       DATEDIFF(EventDate,  
                RegistrationDate) AS Date_Difference  
  FROM Events  
 JOIN Registration USING(EventID)  
 ORDER BY EventID;
```

# OUTPUT

EventID	EventDate	RegistrationDate	Date_Difference
1	2023-09-10	2023-09-02	8
2	2023-09-15	2023-09-10	5
3	2023-09-20	2023-08-25	26
4	2023-09-12	2023-08-28	15
5	2023-09-17	2023-09-01	16
6	2023-09-13	2023-09-15	-2
7	2023-09-14	2023-09-20	-6
8	2023-09-18	2023-09-22	-4
9	2023-09-11	2023-09-28	-17
10	2023-09-16	2023-10-03	-17

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## 12. Calculate the total number of donations made in each month of the year?

```
WITH MonthlyDonations AS
(
    SELECT MONTH(DonationDate) AS Donation_Month,
           COUNT(DonationID) AS Total_Donations
    FROM Donations
   GROUP BY Donation_Month
)
SELECT Donation_Month,
       Total_Donations
  FROM MonthlyDonations;
```

# OUTPUT

Donation_Month	Total_Donations
8	2
9	8
10	1

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# 13. Calculate the total number of registrations for each event and rank them?

```
WITH EventRegistrationCount AS
(
    SELECT COUNT(R.RegistrationID) AS TOTAL_REGISTRATIONS,
        E.EventName AS EVENTS
    FROM Registration AS R
    JOIN Events AS E USING(EventID)
    GROUP BY E.EventName
)

SELECT EVENTS,
    TOTAL_REGISTRATIONS,
    RANK() OVER(ORDER BY TOTAL_REGISTRATIONS DESC) AS RANKING
FROM EventRegistrationCount;
```

# OUTPUT

EVENTS	TOTAL_REGISTRATIONS	RANKING
Ganesh Procession	2	1
Ganesh Chaturthi Charity Drive	2	1
Ganesh Chaturthi Food Festival	2	1
Ganesh Chaturthi Puja	2	1
Ganesh Cultural Night	2	1
Ganesh Visarjan Ceremony	1	6
Ganesh Chaturthi Musical Concert	1	6
Ganesh Chaturthi Storytelling Workshop	1	6
Ganesh Idol Decoration Contest	1	6
Ganesh Art and Craft Exhibition	1	6

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# 14. Retrieve the previous and next participants (based on participant ID) for each participant?

```
SELECT  
    ParticipantID,  
    Name,  
    LAG(ParticipantID) OVER (ORDER BY ParticipantID) AS Previous_Participant,  
    LEAD(ParticipantID) OVER (ORDER BY ParticipantID) AS Next_Participant  
FROM Participants;
```

# OUTPUT

ParticipantID	Name	Previous_Participant	Next_Participant
1	Amit Patel	NULL	2
2	Priya Sharma	1	3
3	Rahul Singh	2	4
4	Deepika Reddy	3	5
5	Sanjay Verma	4	6
6	Meera Kapoor	5	7
7	Rajesh Kumar	6	8
8	Neha Mishra	7	9
9	Vikram Singh	8	10
10	Pooja Gupta	9	NULL

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15. Find the participants who registered for events and provide their contact numbers along with a flag indicating whether their contact number contains the area code "555." ?

```
WITH ContactsWithAreaCode AS
(
    SELECT Name AS Participants_Name,
           ContactNumber,
           CASE
               WHEN ContactNumber LIKE "%555%" THEN "YES"
               ELSE "NO"
           END AS HasAreaCode555
    FROM Participants
    JOIN Registration USING(ParticipantID)
)
SELECT Participants_Name,
       ContactNumber,
       HasAreaCode555
FROM ContactsWithAreaCode;
```

# OUTPUT

Participants_Name	ContactNumber	HasAreaCode555
Amit Patel	555-555-5555	YES
Priya Sharma	777-777-7777	NO
Rahul Singh	444-444-4444	NO
Deepika Reddy	666-666-6666	NO
Sanjay Verma	333-333-3333	NO
Meera Kapoor	888-888-8888	NO
Rajesh Kumar	222-222-2222	NO

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# THANK YOU!

Please feel free to share your feedback in  
comments

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