

## DBMS: LAB 8

### NESTED AND CORRELATED QUERIES

#### University Fest Management System

- .....
- **Abuthwahir H M**
  - **PES1UG22CS022**
- .....

```
mysql> prompt PES1UG22CS022--> ;
PROMPT set to 'PES1UG22CS022--> '
PES1UG22CS022--> show databases;
+-----+
| Database |
+-----+
| fest_database |
| information_schema |
| lab6 |
| learning |
| mysql |
| performance_schema |
| sys |
| uni_fest |
| unifest |
| university_fest |
+-----+
10 rows in set (0.00 sec)

PES1UG22CS022--> use fest_database;
```

#### TASK 1:

##### Question 1:

Selecting the cafenames of the cafes which have distinct items greater than the average of distinct items from all the cafes

cafename
case A
café C

##### Question 2:

This selects the cafename and gender exclusivity if the a cafe is visted by only females it is selected as 'Only female' else if only male visitors it is marked as 'Only male' else if both genders visit a café

Café_name	Gender_exclusively
Café A	Both Genders
Café B	Only female
Café C	Only male

The given query returns the café name and Gender\_exclusivity

Question 3:

Name
Sarah

The given query gives the name who visited the café which serves all food items they ordered.

**TASK 2:****Question 1:**

```
PES1UG22CS022--> SELECT item_name, CASE WHEN TIME(timestamp) < '12:00:00' THEN 'Morning' WHEN TIME(timestamp) BETWEEN '12:00:00' AND '15:00:00' THEN 'Afternoon' ELSE 'Evening' END AS time_of_day, SUM(quantity) AS quantity FROM purchased GROUP BY item_name, time_of_day ORDER BY item_name;
```

item_name	time_of_day	quantity
Bacon-Wrapped Shrimp	Evening	2
BBQ Chicken Sandwich	Afternoon	2
BBQ Chicken Sandwich	Evening	1
Caprese Salad	Afternoon	3
Chicken Noodle Soup	Afternoon	8
Chicken Noodle Soup	Morning	2
Classic Caesar Salad	Afternoon	3
Classic Caesar Salad	Morning	5
Fish Tacos	Afternoon	9
Fish Tacos	Evening	6
Fish Tacos	Morning	9
Grilled Steak	Afternoon	2
Grilled Steak	Morning	4
Margherita Pizza	Afternoon	2
Margherita Pizza	Morning	2
Mushroom Risotto	Afternoon	6
Mushroom Risotto	Evening	1
Mutton Stroganoff	Afternoon	2
Shrimp Scampi	Afternoon	3
Shrimp Scampi	Evening	2
Shrimp Scampi	Morning	3
Spinach and Feta Omelette	Afternoon	1
Spinach and Feta Omelette	Morning	2
Vegetable Pad Thai	Afternoon	3
Vegetable Stir-Fry	Afternoon	4
Vegetable Stir-Fry	Evening	5
Vegetable Stir-Fry	Morning	2
Veggie Wrap	Afternoon	3
Veggie Wrap	Morning	7

29 rows in set (0.00 sec)

PES1UG22CS022--> |

**Question 2:**

```
PES1UG22CS022--> SELECT event_id, event_name, dept_with_max_students_enrolled
-> FROM (
-> SELECT e.event_id, e.event_name,
-> (SELECT department FROM participant p
-> INNER JOIN registration r ON p.SRN = r.SRN
-> WHERE r.event_id = e.event_id
-> GROUP BY department
-> ORDER BY COUNT(*) DESC LIMIT 1)
-> AS dept_with_max_students_enrolled
-> FROM event e
-> ) AS subquery
-> WHERE dept_with_max_students_enrolled != 'Computer Science';
```

event_id	event_name	dept_with_max_students_enrolled
E1	Adventure Trek	Electrical
E22	Sound and Lighting	Chemical
E5	Code Jam	Civil
E9	Drama Play	Civil

4 rows in set (0.09 sec)

**Question 3:**

```

16 rows in set (0.04 sec)

PES1UG22CS022--> SELECT DISTINCT e.event_id, e.event_name FROM event e WHERE NOT EXISTS (SELECT * FROM event_conduction ec WHERE (ec.date_of_con
duction IN (SELECT date_of_conduction FROM event_conduction WHERE event_id = 'E1')) AND NOT EXISTS (SELECT * FROM event_conduction ec2 WHERE e.e
vent_id = ec2.event_id AND ec.date_of_conduction = ec2.date_of_conduction));
+-----+-----+
| event_id | event_name |
+-----+-----+
| E1       | Adventure Trek |
| E6       | Robot Wars    |
+-----+-----+
2 rows in set (0.04 sec)

PES1UG22CS022--> |

```

**Question 4:**

```

PES1UG22CS022--> SELECT DISTINCT e.event_id, e.event_name FROM event e WHERE NOT EXISTS (SELECT * FROM event_conduction ec WHERE (ec.date_of_con
duction IN (SELECT date_of_conduction FROM event_conduction WHERE event_id = 'E1')) AND NOT EXISTS (SELECT * FROM event_conduction ec2 WHERE e.e
vent_id = ec2.event_id AND ec.date_of_conduction = ec2.date_of_conduction));
+-----+-----+
| event_id | event_name |
+-----+-----+
| E1       | Adventure Trek |
| E6       | Robot Wars    |
+-----+-----+
2 rows in set (0.04 sec)

PES1UG22CS022--> SELECT stall_id, name
-> FROM stall s
-> WHERE NOT EXISTS (
-> (SELECT name
-> FROM item
-> WHERE name LIKE '%Chicken%')
-> EXCEPT
-> (SELECT item_name
-> FROM stall_items si
-> WHERE s.stall_id = si.stall_id)
-> );
+-----+-----+
| stall_id | name |
+-----+-----+
| S8       | BiteStreet |
| S4       | Culinary Haven |
| S9       | FlavorCraft |
+-----+-----+
3 rows in set (0.07 sec)

PES1UG22CS022--> |

```

## Database Management System

### Question 5:

```
PES1UG22CS022--> SELECT e.event_name, CASE WHEN MAX(participant_count) > 1 THEN 'Group event' ELSE 'Individual event' END AS type_of_event, MAX(participant_count) AS max_participants, MIN(participant_count) AS min_participants FROM event e JOIN (SELECT event_id, registration_id, COUNT(*) AS participant_count FROM registration GROUP BY event_id, registration_id) AS event_participants ON e.event_id = event_participants.event_id GROUP BY e.event_name ORDER BY MAX(participant_count) DESC, MIN(participant_count);
```

event_name	type_of_event	max_participants	min_participants
Drama Play	Group event	3	1
Music Concert	Group event	2	1
Hackathon	Group event	2	1
Sound and Lighting	Group event	2	1
Code Jam	Group event	2	1
Tech Expo	Group event	2	1
Adventure Trek	Group event	2	2
Escape Room Challenge	Group event	2	2
Art Workshop	Individual event	1	1
Film Screening	Individual event	1	1
Traditional Dance wars	Individual event	1	1
Singing Contest	Individual event	1	1
Fashion Exhibition	Individual event	1	1
Poetry Slam	Individual event	1	1
Quiz Competition	Individual event	1	1
Tech Talk	Individual event	1	1
Web Design Contest	Individual event	1	1
Paintball Tournament	Individual event	1	1
Stage Setup	Individual event	1	1
Event Coordination	Individual event	1	1
Volunteer Management	Individual event	1	1
Baking Competition	Individual event	1	1
Food Tasting	Individual event	1	1
Cooking Workshop	Individual event	1	1
Short Film Screening	Individual event	1	1
Literary Debate	Individual event	1	1
Writing Competition	Individual event	1	1
Poetry Recitation	Individual event	1	1
Photography Contest	Individual event	1	1
Robot Wars	Individual event	1	1
Gaming Tournament	Individual event	1	1

31 rows in set (0.01 sec)

```
PES1UG22CS022--> |
```