Project 3 - Results

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Users

```sql
-- Find names of reporters whose potholes have been repaired
SELECT r.reporter_name FROM Reporter as r
    JOIN PropertyDamageReport as pdr ON r.reporter_id = pdr.reporter_id
    JOIN Pothole as p ON p.pothole_id = pdr.pothole_id
    JOIN WorkOrder as wo ON wo.pothole_id = p.pothole_id
WHERE wo.pothole_status = 'REPAIRED';
```

Data Output | Messages | Notifications

	reporter_name character varying (255)
1	Jane Smith
2	Michael Brown
3	Jessica Taylor

Pothole Reports

```sql
-- Find the number of potholes per district
SELECT district, COUNT(*) AS pothole_count
FROM Pothole
GROUP BY district;
```

Data Output | Messages | Notifications

	district character varying (255)	pothole_count bigint
1	District 1	4
2	District 5	4
3	District 4	4
4	District 3	4
5	District 2	4

Work Orders

```
1 SELECT * FROM WorkOrder AS wo WHERE wo.pothole_id
2     IN (SELECT p.pothole_id FROM Pothole AS p
3             WHERE wo.cost > 300);
```

Data Output | Messages | Notifications

	workorder_id [PK] integer	pothole_id integer	crew_id integer	pothole_status epotstat	cost double precision
1	1	1	1	IN_PROGRESS	500
2	2	2	2	REPAIRED	1200
3	4	4	4	IN_PROGRESS	700
4	5	5	5	REPAIRED	1100
5	7	7	7	IN_PROGRESS	650
6	8	8	8	REPAIRED	1400
7	10	10	10	IN_PROGRESS	800
8	11	11	11	REPAIRED	900
9	12	12	12	NOT_REPAIRED	450
10	13	13	13	IN_PROGRESS	750
11	14	14	14	REPAIRED	1300
12	15	15	15	NOT_REPAIRED	350
13	16	16	16	IN_PROGRESS	950
14	17	17	17	REPAIRED	1250
15	18	18	18	NOT_REPAIRED	400
16	19	19	19	IN_PROGRESS	1050
17	20	20	20	REPAIRED	1150

```sql
-- -- Find total cost of work orders by district
SELECT p.district, SUM(w.cost) AS total_cost
FROM WorkOrder w
JOIN Pothole p ON w.pothole_id = p.pothole_id
GROUP BY p.district;
```

Data Output | Messages | Notifications

	district character varying (255)	total_cost double precision
1	District 1	2600
2	District 5	3400
3	District 4	3250
4	District 3	2850
5	District 2	3550

Property Damage

```sql
-- -- Identify the most common damage type caused by potholes
SELECT damage_type, COUNT(*) AS damage_count
FROM PropertyDamageReport
GROUP BY damage_type;
```

Data Output | Messages | Notifications

	damage_type edamage	damage_count bigint
1	PERSONAL	3
2	VEHICLE	4
3	PROPERTY	3

Work Crews

```sql
-- Find crews whose pothole status is not 'REPAIRED'
SELECT c.crew_name, wo.pothole_status FROM Crew AS c
    JOIN WorkOrder AS wo ON c.crew_id = wo.crew_id
WHERE wo.pothole_status != 'REPAIRED';
```

Data Output | Messages | Notifications

	crew_name character varying (255)	pothole_status epotstat
1	Alpha Team	IN_PROGRESS
2	Gamma Crew	NOT_REPAIRED
3	Delta Force	IN_PROGRESS
4	Zeta Taskforce	NOT_REPAIRED
5	Eta Group	IN_PROGRESS
6	Rapid Repair	NOT_REPAIRED
7	Pothole Pros	IN_PROGRESS
8	Road Rescuers	NOT_REPAIRED
9	Urban Menders	IN_PROGRESS
10	City Fixers	NOT_REPAIRED
11	Metro Patching	IN_PROGRESS
12	Express Repair	NOT_REPAIRED
13	Bridge Builders	IN_PROGRESS

Work Equipment

```sql
-- Get the cost of repairs by equipment type (per hour)
SELECT e.equipment_category, SUM(e.equipment_cost_per_hr) AS total_cost
FROM RentedEquipment r
JOIN Equipment e ON r.equipment_id = e.equipment_id
GROUP BY e.equipment_category;
```

Data Output | Messages | Notifications

	equipment_category eequipment_category	total_cost numeric
1	HAND_TOOL	200.00
2	VEHICLE	625.00
3	HEAVY_MACHINERY	1120.00

```sql
-- Find the average rental cost per equipment type
SELECT equipment_category, AVG(equipment_cost_per_hr)
AS avg_rental_cost FROM Equipment
GROUP BY equipment_category;
```

Data Output | Messages | Notifications

	equipment_category eequipment_category	avg_rental_cost numeric
1	HAND_TOOL	33.3333333333333333
2	VEHICLE	104.1666666666666667
3	HEAVY_MACHINERY	140.0000000000000000