

# CRIME MANAGEMENT

## QUESTIONS:

1. Select all open incidents.

```
SELECT * FROM Crime WHERE Status = 'Open';
```

```
56 • SELECT * FROM Crime WHERE Status = 'Open';
```

Result Grid						
Filter Rows:						
Edit: Export/Import: Wrap Cell Content:						
	CrimeID	IncidentType	IncidentDate	Location	Description	Status
▶	1	Robbery	2023-09-15	123 Main St, Cityville	Armed robbery at a convenience store	Open
▶	4	Assault	2023-09-25	101 Pine St, Hamletville	Physical altercation outside a bar	Open
•	NULL	NULL	NULL	NULL	NULL	NULL

2. Find the total number of incidents.

```
SELECT COUNT(*) AS TotalIncidents FROM Crime;
```

```
57 • SELECT COUNT(*) AS TotalIncidents FROM Crime;
```

Result Grid	
	TotalIncidents
▶	6

3. List all unique incident types.

```
SELECT DISTINCT IncidentType FROM Crime;
```

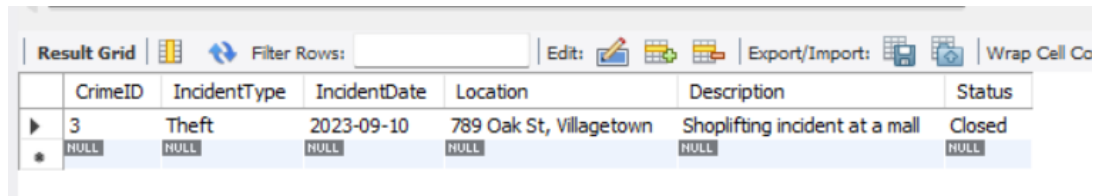
```
58 • SELECT DISTINCT IncidentType FROM Crime;
```

Result Grid	
	IncidentType
▶	Robbery
	Homicide
	Theft
	Assault
	Burglary
	Vandalism

4. Retrieve incidents that occurred between '2023-09-01' and '2023-09-10'.

```
SELECT * FROM Crime
WHERE IncidentDate BETWEEN '2023-09-01' AND '2023-09-10';
```

```
59 • SELECT * FROM Crime
60 WHERE IncidentDate BETWEEN '2023-09-01' AND '2023-09-10';
```



The screenshot shows a database query result grid with the following columns: CrimeID, IncidentType, IncidentDate, Location, Description, and Status. The first row contains the data for a theft incident on 2023-09-10 at 789 Oak St, Villagetown. The second row is a placeholder with NULL values.

	CrimeID	IncidentType	IncidentDate	Location	Description	Status
▶	3	Theft	2023-09-10	789 Oak St, Villagetown	Shoplifting incident at a mall	Closed
*	NULL	NULL	NULL	NULL	NULL	NULL

5. List persons involved in incidents in descending order of age.

```
select VictimId, CrimeID, Name, Age from Victim order by Age desc;
```

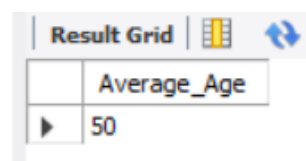


The screenshot shows a database query result grid with the following columns: VictimId, CrimeID, Name, and Age. The results are ordered by age in descending order.

	VictimId	CrimeID	Name	Age
▶	3	3	Alice Johnson	75
	6	6	David Garcia	57
	5	5	Emily Jones	47
	1	1	John Doe	45
	2	2	Jane Smith	45
	4	4	Michael Brown	33

6. Find the average age of persons involved in incidents.

```
select round(avg(Age)) as Average_Age from Victim;
```



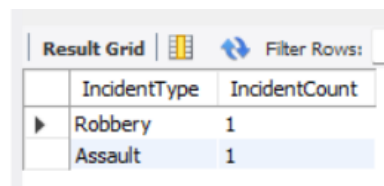
The screenshot shows a database query result grid with the following columns: Average\_Age. The result is 50.

	Average_Age
▶	50

7. List incident types and their counts, only for open cases.

```
SELECT IncidentType, COUNT(*) AS IncidentCount
FROM Crime
WHERE Status = 'Open'
GROUP BY IncidentType;
```

```
• SELECT IncidentType, COUNT(*) AS IncidentCount
FROM Crime
WHERE Status = 'Open'
GROUP BY IncidentType;
```

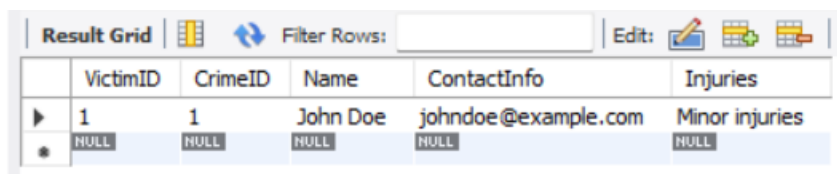


	IncidentType	IncidentCount
▶	Robbery	1
	Assault	1

8. Find persons with names containing 'Doe'.

```
SELECT *
FROM Victim
WHERE Name LIKE '%Doe%';
```

```
• SELECT * FROM Victim WHERE Name LIKE '%Doe%';
```

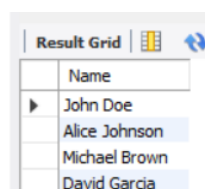


	VictimID	CrimeID	Name	ContactInfo	Injuries
▶	1	1	John Doe	johndoe@example.com	Minor injuries
•	NULL	NULL	NULL	NULL	NULL

9. Retrieve the names of persons involved in open cases and closed cases.

```
SELECT DISTINCT V.Name
FROM Victim V
JOIN Crime C ON V.CrimeID = C.CrimeID
WHERE C.Status IN ('Open', 'Closed');
```

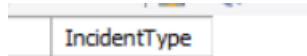
```
• SELECT DISTINCT V.Name
FROM Victim V
JOIN Crime C ON V.CrimeID = C.CrimeID
WHERE C.Status IN ('Open', 'Closed');
```



	Name
▶	John Doe
	Alice Johnson
	Michael Brown
	David Garcia

10. List incident types where there are persons aged 30 or 35 involved.

```
select c.IncidentType FROM Crime c join (SELECT CrimeID FROM Victim WHERE
Age IN (30, 35)
UNION
SELECT CrimeID FROM Suspect WHERE SAge IN (30, 35)) AS incident_ids ON
c.CrimeID = incident_ids.CrimeID;
```

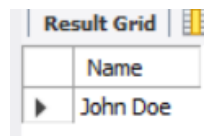


IncidentType
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11. Find persons involved in incidents of the same type as 'Robbery'.

```
SELECT DISTINCT V.Name
FROM Victim V
JOIN Crime C ON V.CrimeID = C.CrimeID
WHERE C.IncidentType = 'Robbery';
```

- ```
SELECT DISTINCT V.Name
FROM Victim V
JOIN Crime C ON V.CrimeID = C.CrimeID
WHERE C.IncidentType = 'Robbery';
```

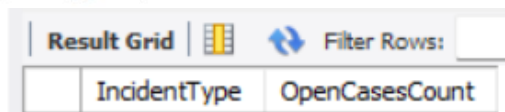


| Name     |
|----------|
| John Doe |

12. List incident types with more than one open case.

```
SELECT IncidentType, COUNT(*) AS OpenCasesCount
FROM Crime
WHERE Status = 'Open'
GROUP BY IncidentType
HAVING COUNT(*) > 1;
```

- ```
SELECT IncidentType, COUNT(*) AS OpenCasesCount FROM Crime WHERE Status = 'Open' GROUP BY IncidentType HAVING COUNT(*) > 1;
```



IncidentType	OpenCasesCount
--------------	----------------

13. List all incidents with suspects whose names also appear as victims in other incidents.

```
SELECT C.*
FROM Crime C
JOIN (
    SELECT S.CrimeID
    FROM Suspect S
    WHERE EXISTS (
        SELECT 1
        FROM Victim V
        WHERE V.CrimeID = S.CrimeID
        AND V.Name = S.Name
    )
) AS Subquery ON C.CrimeID = Subquery.CrimeID;
```

CrimeID	IncidentType	IncidentDate	Location	Description	Status
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14. Retrieve all incidents along with victim and suspect details.

```
SELECT c.*, v.Name AS VictimName, v.ContactInfo AS VictimContactInfo,
v.Injuries AS VictimInjuries,
s.Name AS SuspectName, s.Description AS SuspectDescription,
s.CriminalHistory AS SuspectCriminalHistory
FROM Crime c
LEFT JOIN Victim v ON c.CrimeID = v.CrimeID
LEFT JOIN Suspect s ON c.CrimeID = s.CrimeID;
```

CrimeID	IncidentType	IncidentDate	Location	Description	Status	VictimName	VictimContactInfo	VictimInjuries
1	Robbery	2023-09-15	123 Main St, Cityville	Armed robbery at a convenience store	Open	John Doe	john.doe@example.com	Minor injuries
2	Homicide	2023-09-20	456 Elm St, Townsville	Investigation into a murder case	Under Investigation	Jane Smith	jane.smith@example.com	Deceased
3	Theft	2023-09-10	789 Oak St, Villagetown	Shoplifting incident at a mall	Closed	Alice Johnson	alice.johnson@example.com	None
4	Assault	2023-09-25	101 Pine St, Hamletville	Physical altercation outside a bar	Open	Michael Brown	michael.brown@example.com	Serious injuries
5	Burglary	2023-09-18	202 Maple St, Suburbia	Break-in at a residential home	Under Investigation	Emily Jones	emily.jones@example.com	None
6	Vandalism	2023-09-12	303 Cedar St, Countryside	Damaging public property	Closed	David Garcia	david.garcia@example.com	Minor injuries

15. Find incidents where the suspect is older than any victim.

```
select c.CrimeID, v.Age, s.SAge from Crime c join Victim v on  
c.CrimeID=v.CrimeID join Suspect s on v.crimeID=s.CrimeID where Sage>age;
```

	CrimeID	Age	SAge
▶	1	40	78
	2	37	73
	3	49	50
	4	51	75
	6	29	63

16. Find suspects involved in multiple incidents:

```
SELECT Name, COUNT(DISTINCT CrimeID) AS IncidentCount  
FROM Suspect  
GROUP BY Name  
HAVING COUNT(DISTINCT CrimeID) > 1;
```

Result Grid		Filter R
Name	IncidentCount	

17. List incidents with no suspects involved.

```
SELECT C.*  
FROM Crime C  
LEFT JOIN Suspect S ON C.CrimeID = S.CrimeID  
WHERE S.SuspectID IS NULL;
```

Result Grid		Filter Rows:		Export:		Wrap Cell C
CrimeID	IncidentType	IncidentDate	Location	Description	Status	

18. List all cases where at least one incident is of type 'Homicide' and all other incidents are of type 'Robbery'.

```
SELECT C.*
FROM Crime C
WHERE EXISTS (
    SELECT 1
    FROM Crime
    WHERE CrimeID = C.CrimeID AND IncidentType = 'Homicide'
)
AND NOT EXISTS (
    SELECT 1
    FROM Crime
    WHERE CrimeID = C.CrimeID AND IncidentType != 'Robbery'
);
```

Result Grid

Filter Rows:

Edit:

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	CrimeID	IncidentType	IncidentDate	Location	Description	Status
*	NULL	NULL	NULL	NULL	NULL	NULL

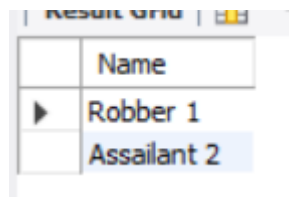
19. Retrieve a list of all incidents and the associated suspects, showing suspects for each incident, or 'No Suspect' if there are none.

```
SELECT C.*, COALESCE(S.Name, 'No Suspect') AS SuspectName
FROM Crime C
LEFT JOIN Suspect S ON C.CrimeID = S.CrimeID;
```

Result Grid							Filter Rows:	Export:	Wrap Cell Content:
CrimeID	IncidentType	IncidentDate	Location	Description	Status	SuspectName			
1	Robbery	2023-09-15	123 Main St, Cityville	Armed robbery at a convenience store	Open	Robber 1			
2	Homicide	2023-09-20	456 Elm St, Townsville	Investigation into a murder case	Under Investigation	Homicide			
3	Theft	2023-09-10	789 Oak St, Villagetown	Shoplifting incident at a mall	Closed	Suspect 1			
4	Assault	2023-09-25	101 Pine St, Hamletville	Physical altercation outside a bar	Open	Assailant 2			
5	Burglary	2023-09-18	202 Maple St, Suburbia	Break-in at a residential home	Under Investigation	Burglar 1			
6	Vandalism	2023-09-12	303 Cedar St, Countryside	Damaging public property	Closed	Vandal 3			

20. List all suspects who have been involved in incidents with incident types 'Robbery' or 'Assault'.

```
SELECT DISTINCT Name
FROM Suspect
WHERE CrimeID IN (
    SELECT CrimeID
    FROM Crime
    WHERE IncidentType IN ('Robbery', 'Assault')
);
```



A screenshot of a database result grid window. The window has a title bar that says "Result Grid". It contains a table with two columns: an unlabeled column on the left and a column labeled "Name" on the right. The table has two rows of data. The first row has a small black triangle icon in the left column and the text "Robber 1" in the "Name" column. The second row has a small black triangle icon in the left column and the text "Assailant 2" in the "Name" column. The second row is highlighted with a light blue background.

	Name
▶	Robber 1
▶	Assailant 2