**Hexaware Assessment - 1 (Coding Challenge 3)**

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1. Select all open incidents.

select \* from crime where status = 'open';

1. Find the total number of incidents.

select count(\*) from crime;

1. List all unique incident types.

select distinct IncidentType from crime;

1. 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';

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

select v.name, v.age from victim v order by v.age desc;

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

select avg(v.age) from victim v;

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

select IncidentType, count(\*) from crime where status = 'open' group by IncidentType;

1. Find persons with names containing 'Doe'.

select \* from victim where name like '%doe%';

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

select distinct v.name

from victim v

inner join crime c

on v.CrimeID = c.CrimeID

where c.status in ('open', 'closed');

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

select distinct c.IncidentType

from crime c

inner join victim v

on c.CrimeID = v.CrimeID

where v.age in (30, 35);

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

select v.name from victim v join crime c on v.crimeid = c.crimeid where c.incidenttype = 'robbery';

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

select incidenttype from crime

where status = 'open'

group by incidenttype

having count(\*) > 1;

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

select distinct c.\*, s.\*

from suspect s

join crime c on s.crimeid = c.crimeid

join victim v on s.name = v.name;

1. Retrieve all incidents along with victim and suspect details.

select c.\*, v.name, s.name

from crime c

left join victim v on c.crimeid = v.crimeid

left join suspect s on c.crimeid = s.crimeid;

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

select c.\*, s.name from crime c

join suspect s on c.crimeid = s.crimeid

where s.age > (select max(v.age) from victim v where v.crimeid = c.crimeid);

1. Find suspects involved in multiple incidents

select s.name, count(\*) from suspect s

group by s.name

having count(\*) > 1;

1. List incidents with no suspects involved.

select c.\* from crime c

join suspect s on c.crimeid = s.crimeid

where s.name = 'Unknown';

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

select \* from crime

where incidenttype = 'homicide'

or (incidenttype = 'robbery'

and not exists ( select 1 from crime where incidenttype not in ('homicide', 'robbery')));

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

select c.crimeid, c.incidenttype, if(s.name is null, 'Unknown', s.name) as suspect from crime c

left join suspect s

on c.crimeid = s.crimeid

where s.name is null or s.name != 'Unknown';

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

select distinct s.name from suspect s

join crime c on s.crimeid = c.crimeid

where c.incidenttype in ('robbery', 'assault');

**SCREENSHOTS:**

