CODING CHALLENGE SQL

Name : Srinath N S S

Create database Coding\_Challenge;

Use Coding\_Challenge

--Creating Tables

CREATE TABLE Crime (

CrimeID INT PRIMARY KEY,

IncidentType VARCHAR(255),

IncidentDate DATE,

Location VARCHAR(255),

Description TEXT,

Status VARCHAR(20)

);

CREATE TABLE Victim (

VictimID INT PRIMARY KEY,

CrimeID INT,

Name VARCHAR(255),

ContactInfo VARCHAR(255),

Injuries VARCHAR(255),

FOREIGN KEY (CrimeID) REFERENCES Crime(CrimeID)

);

CREATE TABLE Suspect (

SuspectID INT PRIMARY KEY,

CrimeID INT,

Name VARCHAR(255),

Description TEXT,

CriminalHistory TEXT,

FOREIGN KEY (CrimeID) REFERENCES Crime(CrimeID)

);

--Inserting values

INSERT INTO Crime (CrimeID, IncidentType, IncidentDate, Location, Description, Status)

VALUES

(1, 'Robbery', '2023-09-15', 'Main Street', 'Armed robbery at a convenience store', 'Open'),

(2, 'Homicide', '2023-09-20', 'Townsville', 'Investigation into a murder case', 'Under

Investigation'),

(3, 'Theft', '2023-09-10', 'Oak St Villagetown', 'Shoplifting incident at a mall', 'Closed'),

(4, 'Assault', '2023-09-20', 'Pine Street Village', 'Assault at a bar', 'Closed'),

(5, 'Burglary', '2023-08-05', 'Ludacris Street', 'Breaking Residential property', 'Closed'),

(6, 'Vandalism', '2023-07-25', 'Rantman Village', 'Damaging Public Property', 'Closed'),

(7, 'Cyber\_crime', '2023-09-01', 'Cybercity', 'Leaking Private Images', 'Under Investigation'),

(8, 'Human Trafficking', '2023-05-21', 'Gift Ciyt', 'Exporting Human organs to other countries', 'Closed'),

(9, 'Domestic Abuse', '2023-09-18', 'Phase 1 Gotham', 'Domestic abuse caused by spouses', 'Open');

INSERT INTO Victim (VictimID, CrimeID, Name, ContactInfo, Injuries)

VALUES

(1, 1, 'John Smith', 'johnsmith@gmail.com', 'Minor injuries'),

(2, 2, 'Jane Smith', 'janesmith@gmail.com', 'Deceased'),

(3, 3, 'Alice Johnson', 'alicejohnson@gmail.com', 'None'),

(4, 4, 'Mila Kunis', 'mila@gmail.com', 'Trauma'),

(5, 5, 'Emma Watson', 'emma@gmail.com', 'Property damage'),

(6, 6, 'Emma Stone', 'stone@gmail.com', 'Property damage'),

(7, 7, 'Quinta Brenson', 'quinta@gmail.com', 'None'),

(8, 8, 'Lisa Ann Walter', 'lisa@gmail.com', 'None'),

(9, 9, 'Kamala Harris', 'kamala@gmail.com', 'Minor injuries');

INSERT INTO Suspect (SuspectID, CrimeID, Name, Description, CriminalHistory)

VALUES

(1, 1, 'Robber 1', 'Armed and masked robber', 'Previous robbery convictions'),

(2, 2, 'Unknown', 'Investigation ongoing', NULL),

(3, 3, 'Suspect 1', 'Shoplifting suspect', 'Prior shoplifting arrests'),

(4, 4, 'Unknown', 'Physical attack due vengance', 'No Prior criminal record'),

(5, 5, 'Burglar 1', 'Joker Shaped Mask burglar seen at the scene', 'Burglary charges'),

(6, 6, 'Suspect 2', 'Credit card fraud', 'Prior fraud investigation'),

(7, 7, 'Vandalizer 1', 'Park Properties Damaged', 'No Prior vandalism convictions'),

(8, 8, 'Dealer 1', 'Organ trafficking network', 'Previous Offenses'),

(9, 9, 'Abuser 1', 'Abusing and harrasment', 'No Prior Convictions'),

(10, 4, 'Unknown', 'Another Suspect who attacked due vengance', 'No Prior criminal record'),

(11, 9, 'Emma Stone', 'Suspect in Place', 'No Prior criminal record');

alter table Suspect

add Age int;

alter table Victim

add Age int;

UPDATE Victim

SET Age = 32 Where VictimID =9

Select \* From Crime

Select \* From Victim

Select \* From Suspect

-- Queries

--Question 1 Select all open incidents.

Select \* From crime where Status='Open';

--Question 2 Find the total number of incidents.

Select Count(\*) as Tot\_Incident From Crime;

--Question 3 List all unique incident types.

Select distinct IncidentType from Crime

--Question 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'

--Question 5

Select v.Name,c.\*,v.Age from Crime c join Victim v

on c.CrimeID=v.CrimeID

order by v.Age

--Question 6

Select avg(Age) AS Age

from(Select Age from Victim union select Age from Suspect)as AllPersons;

--Question 7

Select IncidentType,count(\*) as No\_of\_Incident from Crime

where status='open'

group by IncidentType

--Question 8 Find persons with names containing 'Doe'.

Select \* From Victim where Name like '%Doe%'

--Question 9

Select v.Name,v.ContactInfo from Victim v

join Crime c

on v.CrimeID=c.CrimeID

where c.Status='Open'

--Question 10

select c.IncidentType from Crime c

join Victim v on c.CrimeID = v.CrimeID

WHERE v.age=30 or v.age=35;

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

Select v.Name , v.ContactInfo from Victim v

join Crime c on v.CrimeID=c.CrimeID

where c.IncidentType='Robbery';

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

select IncidentType from Crime where Status='Open'

group by IncidentType having count(\*)>1

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

Select v.Name,c.CrimeID, c.IncidentType, c.IncidentDate, c.Location, c.Description, c.Status from Crime c

join Suspect s on c.CrimeID = s.CrimeID

join Victim v on s.Name = v.Name

--Question 14 Retrieve all incidents along with victim and suspect details.

select c.\*,v.\*,s.\* from Crime c

left join Victim v on c.CrimeID=v.CrimeID

left join Suspect s on c.CrimeID=s.CrimeID;

--Question 15 Age

SELECT c.\* from Crime c

join Suspect s on c.CrimeID = s.CrimeID

join Victim v on c.CrimeID = v.CrimeID

WHERE s.Age >

(SELECT Age from Victim where CrimeID = c.CrimeID);

--Question 16 Find suspects involved in multiple incidents:

select s.Name,count(s.CrimeID) as Incidents from Suspect s

group by s.Name

having count(s.CrimeID)>1;

--Question 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;

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

select cr1.\* from Crime cr1

join Crime cr2 on cr1.CrimeID = cr2.CrimeID

where cr1.IncidentType = 'Homicide' AND cr2.IncidentType = 'Robbery';

--Question 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.IncidentType, c.IncidentDate, c.Location, s.Name from Crime c

left join Suspect s on c.CrimeID = s.CrimeID

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

select s.\* from Suspect s join Crime c on s.CrimeID = c.CrimeID

where c.IncidentType='Robbery' OR c.IncidentType='Assault';