# Crime Record management system

## 

## PROBLEM STATEMENT

A database management system , to maintain records of criminals and the crimes committed by them along with victim ,FIR , criminal details.

A petitioner can lodge many FIRs but they should not be of the same crime . He will have to provide details about his name , contact , address , gender and age while filing an FIR.

Many FIRs can be filed against one accused or one victim , but for different crimes.

Multiple victims or accused can not have the same FIR. Accused and victim details may or may not be known at the time of lodging a complaint.

FIR should include lodging date , time and place and also the incident date , time and place.

Victim’s details include name , age , gender, contact and address.

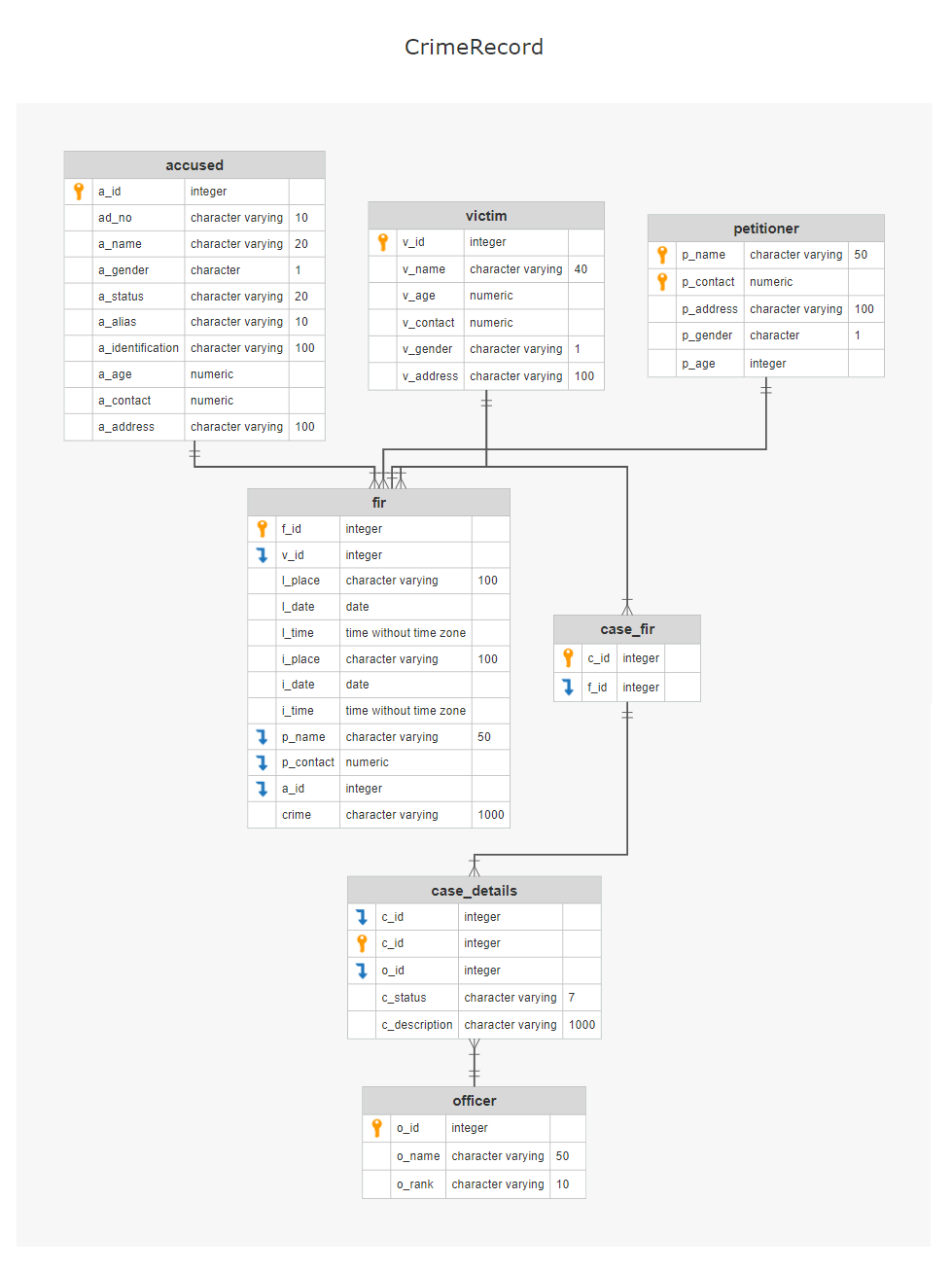
Accused details include name , UIN , gender m age , contact , address , status , alias , Identification.

One officer is assigned a case.

One officer can handle many cases.

## IDENTIFYING ENTITIES AND ATTRIBUTES

1. Petitioner { **Name** , Address , **Contact** , Age**,**Gender }
2. Officer {**O.Id** , OName , Rank }
3. Case {**C.Id** , Status , Description}
4. Accused { Name , **A\_id,**Ad\_no , Gender , Age , Contact , Address , Status , Alias , Identification}
5. FIR { **FIR.ID** , L\_Date ,L\_Time ,L\_Place,i\_Date,i\_Time,i\_Place }
6. Victim {**V\_id** , Name, Age , Gender ,Contact , Address}



## 

## DATA

Accused :

|  |  |  |
| --- | --- | --- |
| Name | Gender | Ad\_no |
| Andy Reyes | M | 7557576415 |
| Lester Higgins | M | 0945598818 |
| Bradford Gomez | M | 6400149025 |
| Micheal Jennings | M | 5270320077 |
| Bert Mitchell | M | 9534401788 |
| Minato Ellis | M | 6273139826 |
| Roosevelt Morgan | M | 4054967129 |
| Donald Woods | M | 3995706435 |
| Bena Kim | F | 4064893837 |
| Italia Robin | F | 7625789093 |
| Shalom Cross | F | 1916729587 |
| Christie Fox | F | 2941229216 |
| Denice Ritchie | F | 0817674655 |
| Eber Fields | M | 8527292704 |
| Luther Bailey | M | 1841693034 |
| Crystal Elliott | F | 8134954762 |
| Shawna Welch | F | 1397127847 |

Places:

|  |
| --- |
| Grand Creek |
| Fort Gisattbra |
| Northern Sma |
| Glarayal |
| Santa Sher |
| Mawat |
| Mount Kinze |
| Royal Elk Port |

Officers:

|  |  |  |
| --- | --- | --- |
| Officer ID | Name | Rank |
| 100 | Vixen Ray |  |
| 101 | Evan Mant |  |
| 102 | Ori Cruise |  |
| 103 | Croy Felt |  |
| 104 | Leon Grim |  |
| 105 | Elnora Lopez |  |
| 106 | Jameson S |  |
| 107 | Akira Wader |  |
| 108 | Akella |  |

Victims :

|  |  |  |
| --- | --- | --- |
| Name | Contact | Gender |
| Layla Rin | 5751028504 | F |
| Tianna Diam | 5733303487 | F |
| Alberta Cris | 6520589994 | F |
| Angela Fen | 4904031515 | F |
| Robin Sert | 5611403194 | M |
| Alexander Dunn | 1049040106 | M |
| Robin Horton | 1030850352 | M |
| Andrew Sutton | 4024852249 | M |
| Tracy Dawson | 1381308517 | M |
| Derrick Ramsey | 3701197982 | M |
| Andre Henry | 3801197982 | M |
| Edna Cross | 5611887694 | F |
| April Robinson | 8704121515 | F |
| Amy Lopez | 4434674315 | F |
| Nora Park | 4911511532 | F |
| Shawn Mcgee | 5644140124 | M |

## SQL QUERIES

Sequence

### OFFICER

#### DDL

CREATE TABLE public.officer

(

o\_id integer NOT NULL DEFAULT nextval('officer\_id'::regclass),

o\_name character varying(50) COLLATE pg\_catalog."default",

o\_rank character varying(10) COLLATE pg\_catalog."default",

CONSTRAINT officer\_pkey PRIMARY KEY (o\_id)

)

#### DML

Insert into officer(o\_name,o\_rank) values

('Vixen Ray','DGP'),

('Evan Mant','DCP'),

('Ori Cruise','DGP'),

('Croy Felt','DCP'),

('Leon Grim','ASP'),

('Elnora Lopez','ASP'),

('Jameson S','ASP'),

('Akira Wader','DCP'),

('Akella','DCP');

CREATE SEQUENCE public.officer\_id

INCREMENT 1

START 100

MINVALUE 100

MAXVALUE 300

CACHE 1;

### ACCUSED

#### DDL

CREATE TABLE public.accused

(

a\_id integer NOT NULL DEFAULT nextval('accused\_id'::regclass),

ad\_no character varying(10) COLLATE pg\_catalog."default",

a\_name character varying(20) COLLATE pg\_catalog."default",

a\_gender character(1) COLLATE pg\_catalog."default",

a\_status varchar(20),

a\_alias character varying(10) COLLATE pg\_catalog."default",

a\_identification character varying(100) COLLATE pg\_catalog."default",

a\_age numeric(2,0),

a\_contact numeric(10,0),

a\_address character varying(100) COLLATE pg\_catalog."default",

CONSTRAINT accused\_pkey PRIMARY KEY (a\_id),

CONSTRAINT accused\_ad\_no\_check CHECK (ad\_no::text ~ '^[0-9]\*$'::text),

CONSTRAINT accused\_a\_gender\_check CHECK (a\_gender = ANY (ARRAY['M'::bpchar, 'F'::bpchar, 'm'::bpchar, 'f'::bpchar])),

CONSTRAINT accused\_a\_status\_check CHECK (a\_status::text = ANY (ARRAY['Bailed'::character varying, 'Released'::character varying, 'Arrested'::character varying, 'Escaped'::character varying]::text[])))

#### DML

INSERT INTO public.accused(ad\_no, a\_name, a\_gender, a\_alias, a\_status, a\_identification, a\_age,a\_contact,a\_address)VALUES

('7557576415', 'Andy Reyes', 'M', 'Andy', 'Arrested', 'Mole on the chin', '34',NULL,'12th Street ,Popy Gram'),

('0945598818', 'Lester Higgins', 'M', 'Lester', 'Arrested', 'Scar on the face', '31',1113456789,'87th Lane, Pacific'),

('6400149025', 'Bradford Gomez', 'M', 'Brad', 'Bailed', 'Mole on stomach', '24',3567780983,'109th Lane,Mawat'),

('5270320077', 'Micheal Jennings', 'M', 'Jenning', 'Dead', 'Blue eyes', '26',4443986771,NULL),

('9534401788', 'Bert Mitchell', 'M', 'Bert', 'Bailed', 'Bald', '45',NULL,NULL),

('6273139826', 'Minato Ellis', 'M', 'Ellis', 'Arrested', 'Ear missing', '63',6661029102,'Christian Ro , 12th lane ,Grand Creek'),

('4054967129', 'Roosevelt Morgan', 'M', 'Morgan', 'Arrested', 'Lip ring', '19',9912029901,'34th Street , Comer ,Glarayal'),

('3995706435', 'Donald Woods', 'M', 'Donald', 'Dead', 'Orange face', '28',NULL,NULL),

('4064893837', 'Bena Kim', 'F', 'Kim', 'Arrested', '6 fingers on left hand', '39',9901234323,NULL),

('3995712935', 'Frost Bing', 'F', 'Frost', 'Dead', 'Eye patch', '32',7878909872,NULL),

('3078706435', 'Damon Bill', 'M', 'Billerin', 'Bailed', 'Curly hair', '25',NULL,'Mason Billen , 38th street , Portiol');

CREATE SEQUENCE public.accused\_id

INCREMENT 1

START 10000

MINVALUE 10000

MAXVALUE 30000

CACHE 1;

### VICTIM

#### DDL

CREATE TABLE public.victim

(

v\_id integer NOT NULL DEFAULT nextval('victim\_id'::regclass),

v\_name character varying(40) COLLATE pg\_catalog."default",

v\_age numeric(2,0),

v\_contact numeric(10,0),

v\_gender character varying(1) COLLATE pg\_catalog."default",

v\_address character varying(100) COLLATE pg\_catalog."default",

CONSTRAINT victim\_pkey PRIMARY KEY (v\_id),

CONSTRAINT victim\_v\_gender\_check CHECK (v\_gender::text = ANY (ARRAY['M'::character varying, 'F'::character varying, 'm'::character varying, 'f'::character varying]::text[]))

)

#### 

#### DML

INSERT INTO public.victim(

v\_name, v\_age, v\_contact, v\_gender, v\_address)VALUES

('Layla Rin', '35','5751028504', 'F', '23rd street , RIN ,Grand Creek'),

('Tianna Diam', '23','5733303487', 'F', '12th street , MADY , Glarayal'),

('Alberta Cris', '25','6520589994', 'F', '8th street , Santa Sher'),

('Angela Fen', '41','4904031515', 'F', '9th street Mount Kinze'),

('Robin Sert', '23','5611403194', 'M', '234,Royal Elk Port'),

('Alexander Dunn', '26','1049040106', 'M', 'Northern Sma'),

('Robin Horton', '46','1030850352', 'M', '16,Mount Kinze'),

('Andrew Sutton', '48','4024852249', 'M', 'Fort Gisattbra'),

('Tracy Dawson', '51','1381308517', 'M', '216,Royal Elk Port'),

('Derrick Ramsey', '14','3701197982', 'M', '180,Mount Kinze'),

('Andre Henry', '17','3801197982', 'M', 'Fort Gisattbra'),

('Edna Cross', '39','5611887694', 'F', '38th street , Santa Sher'),

('April Robinson', '35','8704121515', 'F', 'Mawat');

CREATE SEQUENCE public.victim\_id

INCREMENT 1

START 1000

MINVALUE 1000

MAXVALUE 3000

CACHE 1;

### PETITIONER

#### DDL

CREATE TABLE public.petitioner

(

p\_name character varying(50) COLLATE pg\_catalog."default",

p\_contact numeric(10,0),

p\_address character varying(100) COLLATE pg\_catalog."default",

p\_gender character(1) COLLATE pg\_catalog."default",

p\_age integer,

CONSTRAINT petitioner\_pkey PRIMARY KEY (p\_name ,p\_contact),

CONSTRAINT petitioner\_p\_gender\_check CHECK (p\_gender = ANY (ARRAY['M'::bpchar, 'F'::bpchar, 'm'::bpchar, 'f'::bpchar]))

)

#### DML

INSERT INTO public.petitioner(

p\_name, p\_contact, p\_address, p\_gender, p\_age)VALUES

('Lon Prince', 8903284489, '90th Lane , Lon , Fort Gisattbra', 'M', 45),

('Oswaldo Swann', 8896521456, '28th Lane ,House 6 Glarayal', 'M', 23),

('Theo Shackelford', 1145236789, 'Mayden street ,Santa Sher', 'M', 39),

('Benton Ratliff', 2563478965, 'Fort 23 , Royal Elk Port', 'M', 46),

('Rico Birch', 1204563104, 'Campsite 12 , Grand Creek', 'M', 29),

('Cassandra Miller', 4120365897, 'Wayden street , Mount Kinze', 'F', 75),

('Laura Black', 5639870125, 'Fort 62 ,Royal Elk Port', 'F', 36),

('Sheryl Ortega', 1470325896, 'Daymon street , House 23 ,Glarayal', 'F', 57),

('Genevieve Becker', 2340156398, 'Forben mount Moss street , Northern Sma', 'F', 36),

('Christy Gonzalez', 1048763025, 'Redrick Chase , Mawat', 'F', 41);

### FIR

#### DDL

CREATE TABLE fir

(

f\_id SERIAL PRIMARY KEY,

v\_id int , l\_place varchar(100),

l\_date date DEFAULT current\_date,

l\_time time default current\_time ,

i\_place varchar(100),

i\_date date, i\_time time,

p\_name varchar(50),

p\_contact numeric(10),

a\_id int , crime varchar(1000),

constraint fir\_fk1 FOREIGN KEY(a\_id) references accused(a\_id),

constraint fir\_fk2 FOREIGN KEY(p\_name,p\_contact) references petitioner(p\_name,p\_contact),

constraint fir\_fk3 FOREIGN KEY(v\_id) references victim(v\_id)

);

#### DML

INSERT INTO public.fir(v\_id, l\_place, l\_date, l\_time, i\_place, i\_date, i\_time, p\_name, p\_contact, a\_id,crime) VALUES

(1000, 'Glarayal','2014-09-13', '12:20', 'Glarayal','2014-09-12', '10:00', 'Lon Prince', 8903284489, 10000, 'Murder'),

(1001, 'Mawat','2015-07-11', '10:10', 'Mount Kinze','2015-07-11', '7:00', 'Oswaldo Swann', 8896521456, 10001, 'Theft:Shoplifting'),

(1002, 'Northern Sma', '2015-06-10', '06:45','Glarayal', '2015-06-09', '10:45', 'Benton Ratliff', 2563478965, 10002, 'Theft:Stole from Locker'),

(1003, 'Royal Elk Port', '2016-08-24', '09:45','Royal Elk Port', '2016-08-23', '6:30', 'Cassandra Miller', 4120365897, 10004, 'Rape'),

(1004, 'Santa Sher', '2012-05-16', '6:28','Santa Sher', '2012-05-15', '11:30', 'Laura Black', 5639870125, 10003, 'Kidnapping'),

(1005, 'Northern Sma', '2014-02-22', '02:06','Mawat', '2014-02-21', '12:15', 'Sheryl Ortega', 1470325896, 10005, 'Arson'),

(1006, 'Mount Kinze', '2016-04-13', '16:50','Fort Gisattbra', '2016-04-12', '16:20', 'Genevieve Becker', 2340156398, 10006, 'Attack:Acid attack'),

(1007, 'Grand Creek', '2017-12-09', '12:30','Grand Creek', '2017-12-08', '22:35', 'Christy Gonzalez', 1048763025, 10007, 'Vandalism:Keyed a car'),

(1008, 'Santa Sher', '2019-01-06', '05:45','Fort Gisattbra', '2019-01-06', '03:45', 'Rico Birch', 1204563104, 10008, 'Assault on Husband'),

(1009, 'Royal Elk Port', '2015-12-26', '10:20','Mawat', '2015-12-25', '09:50', 'Benton Ratliff', 2563478965, 10007, 'Rape'),

(1010, 'Grand Creek', '2013-11-14', '07:35','Grand Creek', '2013-11-13', '07:36', 'Theo Shackelford', 1145236789, 10010, 'Assault on Wife'),

(1011, 'Mount Kinze', '2016-10-28', '05:15','Mount Kinze', '2016-10-27', '06:25', 'Oswaldo Swann', 8896521456, 10009, 'Rape'),

(1012, 'Fort Gisattbra', '2013-06-25', '06:33','Mawat', '2013-06-24', '10:10', 'Cassandra Miller', 4120365897, 10008, 'Murder');

### CASE\_FIR

#### DDL

CREATE TABLE case\_fir(

c\_id integer DEFAULT nextval('case\_id'::regclass) PRIMARY KEY ,

f\_id integer,

constraint case\_fir\_fk FOREIGN KEY(f\_id) references fir(f\_id)

);

#### DML

INSERT INTO case\_fir(f\_id) VALUES

(1),

(2),

(3),

(4),

(5),

(6),

(7),

(8),

(9),

(10),

(11),

(12),

(13);

CREATE SEQUENCE public.case\_id

INCREMENT 1

START 10000

MINVALUE 10000

MAXVALUE 30000

CACHE 1;

### CASE\_DETAILS

#### DDL

create table case\_details(

c\_id int PRIMARY KEY,

o\_id int ,

c\_status varchar(7) CHECK(c\_status in ('OPEN','CLOSED')),

c\_description varchar(1000),

CONSTRAINT cd\_fk1 FOREIGN KEY(c\_id) references case\_fir(c\_id),

constraint cd\_fk2 FOREIGN KEY(o\_id) references officer(o\_id)

);

#### DML

insert into case\_details VALUES

(10000,101,'CLOSED','A lady from Glarayal was shot dead "by accident" . Accused claims he intender to shoot someone else , was charged of Murder and sentenced to jail for 12 years'),

(10001,102,'CLOSED','A pharmacy Store in Mount Kinze was shoplifted.Medicines worth at least 30000 dollars had been robbed.The accused was Sentenced to 5 years of imprisonment'),

(10002,102,'OPEN','A Locker at the Central Library had been robbed by a group of 3 thieves. Only one of them was caught.'),

(10003,103,'CLOSED','THe victim was brutally raped . The accused was sentenced to death.'),

(10004,108,'CLOSED','The victim was walking to her everyday Gym , and was abducted and killed for money.The accused is sentenced to death.'),

(10005,104,'CLOSED','A house property along with the papers had been set on fire due to some inter-family matters , by a close cousin.The accused is sentenced to life-time imprisonment.'),

(10006,102,'OPEN','The accused threw Hydrochloric Acid on the victims face outside the Stroi College . Reason of Crime under investigation. Accused under arrest and in in for questioning'),

(10007,105,'CLOSED','The famous Pontiac bandit under arrest again for keying a BMW outside Grand Villa.Accused under arrest and under lockdown for 8 days with an additional payment of 4000 dollars.'),

(10008,103,'CLOSED','Wife had gone missing after attacking husband with a knife. Victim;s condition is stable. She was found 5 days later and sentenced to 7 years of jail.'),

(10009,106,'OPEN','A teenage girl was allegedly raped by her uncle when nobody was home, accused sentenced to death.'),

(10010,103,'CLOSED','Husband after assaulting wife for not making him Chicken wings , is under arrest and will have to spend 10 days in jail along with a necessary payment of 10000 dollars for assaulting wife multiple times.'),

(10011,107,'OPEN','The victim was gang-raped by 4 men .Three escaped , case still under investigation.The accused found is under investigation.'),

(10012,108,'OPEN','A lady from Mawat killed her brother with an axe. Criminal under police custody. Reason for murder is not known yet. Court summoning to start from July .');

## RETRIEVAL QUERIES

1. Display the names of those victims , the status of the case , and the officer who filed the case , where the incident took place in Mawat

select v\_name,o\_name,c\_status from

(

(

(

(fir join victim on fir.v\_id = victim.v\_id)

JOIN case\_fir on fir.f\_id = case\_fir.f\_id

)

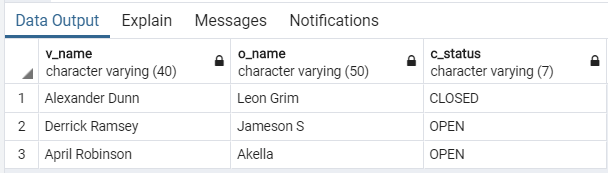
JOIN case\_details on case\_fir.c\_id = case\_details.c\_id

) JOIN officer on officer.o\_id = case\_details.o\_id

)

where i\_place = 'Mawat'

Output



1. Display the victim names,address and the petitioner name of the crimes which took place in May of any year where the petitioner is a Female.

SELECT v\_name, p\_name

From

(

SELECT \* FROM victim NATURAL JOIN fir

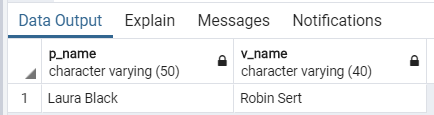
WHERE EXTRACT(MONTH FROM i\_date)=5

)

AS FOO NATURAL JOIN petitioner

Where p\_gender='F';

Output



1. Display the crime details with criminal status , case status and description of the crime of those crimes which took place after 15th of any month and year.

select a\_status,c\_status,c\_description from

(

(

(

fir JOIN accused AC on AC.a\_id = fir.a\_id

)

JOIN case\_fir CF on CF.f\_id = fir.f\_id

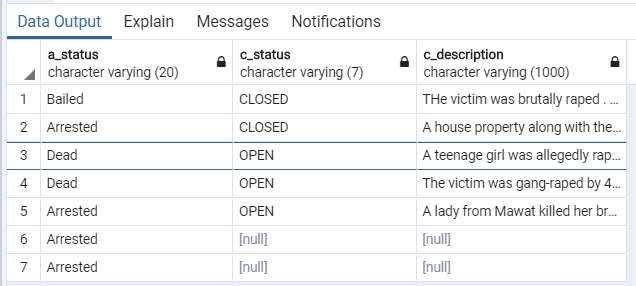
)

JOIN case\_details CD on CD.c\_id = CF.c\_id

)

where (EXTRACT(DAY FROM fir.i\_date) >15)

Output



1. Display the criminal details and associated crimes , with the victim name for a criminal named Roosevelt Morgan.

select a\_name,a\_contact,ad\_no,c\_description,v\_name,crime from

(

((

(fir JOIN accused AC on AC.a\_id =fir.a\_id )

JOIN case\_fir CF on CF.f\_id = fir.f\_id

)

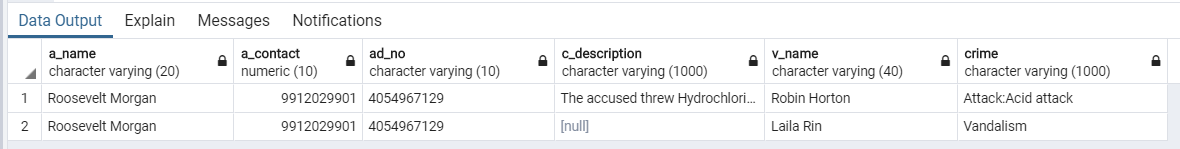
JOIN case\_details CD on CD.c\_id = CF.c\_id

)JOIN victim on fir.v\_id = victim.v\_id

)

where AC.a\_name = 'Roosevelt Morgan'

Output



1. Count and details of criminals who are dead/bailed who were in an incident whose victim is dead
2. Count of status of criminals where the case closed/open

SELECT a\_status, Count(a\_status)

FROM(

SELECT DISTINCT(a\_id), a\_status, a\_name

FROM (SELECT \* FROM (case\_details NATURAL JOIN case\_fir NATURAL JOIN fir) WHERE c\_status='OPEN') AS func NATURAL JOIN accused) AS foo

Group BY(a\_status);

Output:

