# **DBMS - MINI PROJECT**

# CRIME MANAGEMENT SYSTEM

# **Submitted By:**

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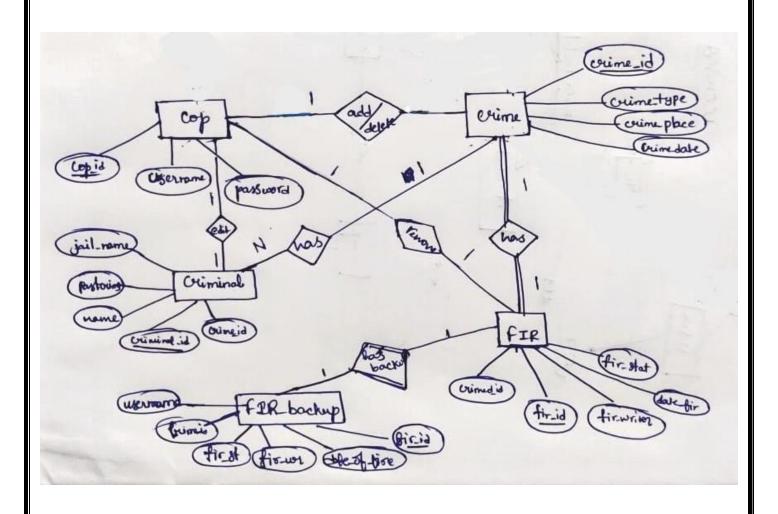
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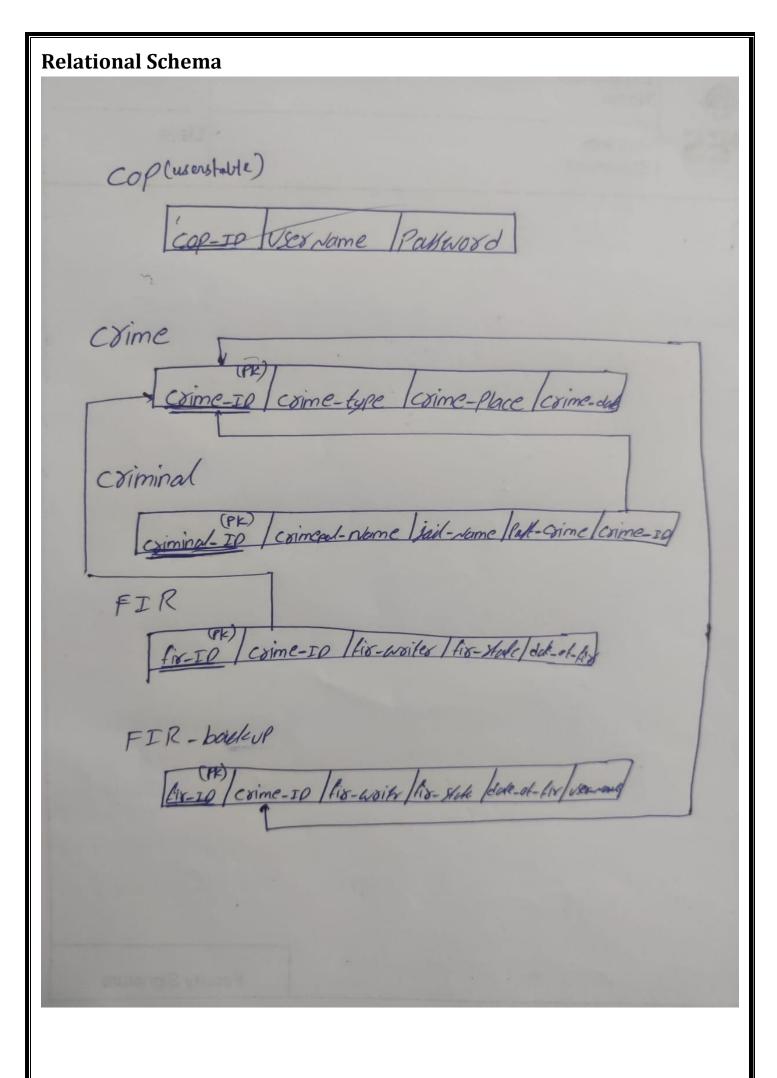
V Semester Section B

# ABSTRACT:

The purpose of this project is to provide the user

# **ER Diagram**





# DDL statements - Building the database

# **Creating the database:**

create DATABASE if not exists CRIME\_DB;

## Using the created database:

use CRIME\_DB;

#### **CREATING TABLES:**

```
WhySOL returned an empty result set (i.e. zero rows). (Query took 0.0009 seconds.)

CREATE TABLE crime(crime_id int_NOT_NULL, crime_type varchar(100), crime_place varchar(100), crime_date DATE_NOT_NULL, PRIMARY_KEY(crime_id));

[Edit inline] [Edit] [Create PHP code]

WhySOL returned an empty result set (i.e. zero rows). (Query took 0.0008 seconds.)

CREATE TABLE FIR(crime_id int not_null, fir_id int_not_null, fir_statement_varchar(200), fir_writer_varchar(200), date_of_fir_DATE_NOT_NULL, PRIMARY_KEY(fir_id), FOREIGN_KEY(crime_id) REFERENCES_crime_(crime_id));

[Edit inline] [Edit] [Create PHP code]

WhySOL returned an empty result set (i.e. zero rows). (Query took 0.0009 seconds.)

CREATE TABLE criminal_(crime_id int_not_null, criminal_id int_not_null, criminal_name_varchar(100), past_crimes_varchar(200), jail_name_varchar(100) DEFAULT_NONE_PRIMARY_KEY(criminal_id), FOREIGN_KEY(crime_id) REFERENCES_crime(crime_id));

[Edit inline] [Edit] [Create PHP code]

WhySOL returned an empty result set (i.e. zero rows). (Query took 0.0008 seconds.)

CREATE TABLE cop(cop_id_INT_NOT_NULL, cop_username_varchar(100), cop_password_varchar(100));

Edit inline] [Edit] [Create PHP code]
```

# Using show tables command after creating tables:

# **Populating the Database:**

# Populating the table "CRIME":

```
INSERT INTO `crime` (`crime_id`, `crime_type`, `crime_place`, `crime_date`) VALUES
('6540', 'SMUGGLING', 'TIRUPATI', '2022-08-09');
INSERT INTO `crime` (`crime_id`, `crime_type`, `crime_place`, `crime_date`) VALUES
('6524', 'THEFT', 'KURNOOL', '2022-09-12');
INSERT INTO `crime` (`crime_id`, `crime_type`, `crime_place`, `crime_date`) VALUES
('6528', 'ROBBERY', 'ANANTAPUR', '2022-08-15');
INSERT INTO `crime` (`crime_id`, `crime_type`, `crime_place`, `crime_date`) VALUES
('6538', 'KIDNAP', 'BELLARY', '2022-08-20');
INSERT INTO `crime` (`crime_id`, `crime_type`, `crime_place`, `crime_date`) VALUES
('6534', 'MATCH FIXING', 'JAMSHEDPUR', '2022-08-23');
INSERT INTO `crime` (`crime_id`, `crime_type`, `crime_place`, `crime_date`) VALUES
('6578', 'MURDER', 'BANGLORE', '2022-11-28');
```

## Populating the table "CRIMINAL":

```
INSERT INTO `criminal` (`crime_id`, `criminal_id`, `criminal_name`, `past_crimes`,
  `jail_name`) VALUES ('6540', '540', 'PUSHPA', '2', 'CHITTOR CENTRAL JAIL');
INSERT INTO `criminal` (`crime_id`, `criminal_id`, `criminal_name`, `past_crimes`,
  `jail_name`) VALUES ('6524', '524', 'TEJA', '0', 'KADAPA CENTRAL JAIL');
INSERT INTO `criminal` (`crime_id`, `criminal_id`, `criminal_name`, `past_crimes`,
  `jail_name`) VALUES ('6528', '528', 'SHESSHANK', '1', 'KURNOOL CENTRAL JAIL');
INSERT INTO `criminal` (`crime_id`, `criminal_id`, `criminal_name`, `past_crimes`,
  `jail_name`) VALUES ('6538', '538', 'PHANI', '4', 'BELLARY CENTRAL JAIL');
INSERT INTO `criminal` (`crime_id`, `criminal_id`, `criminal_name`, `past_crimes`,
  `jail_name`) VALUES ('6534', '534', 'JASAL', '0', 'BIHAR CENTRAL JAIL');
INSERT INTO `criminal` (`crime_id`, `criminal_id`, `criminal_name`, `past_crimes`,
  `jail_name`) VALUES ('6578', '578', 'HEMANTH', '2', 'BELLARY CENTRAL JAIL');
```

#### Populating the table "FIR":

```
INSERT INTO `fir` (`crime_id`, `fir_id`, `fir_statement`, `fir_writer`, `date_of_fir`)
VALUES ('6524', '542', 'TAKEN NECKLACE FROM BIKE WHILE GOING ON THE BIKE', 'MURTHY',
'2022-09-12');
INSERT INTO `fir` (`crime_id`, `fir_id`, `fir_statement`, `fir_writer`, `date_of_fir`)
VALUES ('6528', '582', 'ROBBED THE JEWELERY SHOP ON THE OPENING DAY', 'SHANKAR', '2022-08-22');
INSERT INTO `fir` (`crime_id`, `fir_id`, `fir_statement`, `fir_writer`, `date_of_fir`)
VALUES ('6538', '583', 'KIDNAPPED A CHILD FOR REVENGE PURPOSE A PSHYCO', 'SIVAMANI',
'2022-08-20');
INSERT INTO `fir` (`crime_id`, `fir_id`, `fir_statement`, `fir_writer`, `date_of_fir`)
VALUES ('6534', '543', 'TAKEN MONEY FROM OPPONENT TEAM', 'DAYA', '2022-08-27');
INSERT INTO `fir` (`crime_id`, `fir_id`, `fir_statement`, `fir_writer`, `date_of_fir`)
VALUES ('6578', '587', 'KILLED HIS OWN BROTHER FOR PROPERTY', 'KRISHNA MANOHAR', '2022-11-30');
```

## **Tools Used:**

Backend: MariaDB

**Frontend: STREAMLIT** 

**JOIN QUERIES:** 

1)Display the CRIMINALS who got into the jail on accused of murder.

```
A) select criminal_id,criminal_name from criminal join crime on
crime.crime_id=criminal.crime_id where crime_type="MURDER";
```

2) Give the criminals details who did the crime in ANANTAPUR.

A) select distinct criminal\_name,past\_crimes,jail\_name from criminal as cr Join crime as c on cr.crime\_id=c.crime\_id where crime\_PLACE='ANANTAPUR';

3)Display the details of the CRIMINALS such that fir filed on them and crime happened on the same day.

```
A) SELECT cr.criminal_id,cr.criminal_name,cr.jail_name,cr.past_crimes from criminal as cr where cr.crime_id in (select c.crime_id from crime as c JOIN fir as f on f.crime_id=c.crime_id where f.date_of_fir=c.crime_date);
```

MariaDB [crime\_db]> SELECT cr.criminal\_id,cr.criminal\_name,cr.jail\_name,cr.past\_crimes from criminal as cr where cr.crime\_id in (select c.crime\_id from crime as c J OIN fir as f on f.crime\_id=c.crime\_id where f.date\_of\_fir=c.crime\_date);

criminal_id	criminal_name	jail_name	   past_crimes
	TEJA PHANI	BELLARY CENTRAL JAIL BELLARY CENTRAL JAIL	
2 rows in set (	(0.001 sec)		T

5) SHOW THE DETAILS OF THE FIR AND CRIMINAL OF EVERY CRIME PRESENT IN THE DATABASE.

A) SELECT \* FROM crime NATURAL JOIN (criminal NATURAL JOIN fir);



#### Aggregate Functions:

1 row in set (0.001 sec)

1) CALCULATE THE TOTAL NUMBER OF CRIMINALS WHO ARE IN THE BELLARY CENTRAL JAIL

A) SELECT jail\_name,count(criminal\_id) FROM criminal where jail\_name="BELLARY CENTRALJAIL";

2) CALCULATE THE TOTAL NUMBER OF PAST CRIMES DONE BY THE CRIMINAL WHO ARE IN THE KADAPA RAILWAY STATION

A) SELECT jail\_name,sum(past\_crimes) as no\_of\_pastcrimes FROM criminal where
jail name="KADAPA CENTRAL JAIL";

#### **Set Operations:**

1) List the CRIMINAL and jail names who are arrested in the the murder case and not present in the Bellary jail

```
A) (SELECT cr.criminal_id,cr.jail_name from criminal as cr JOIN crime as c where c.crime_id=cr.criminal_id and crime_type="MURDER")

EXCEPT

(SELECT cr.criminal_id,cr.jail_name from criminal as cr JOIN crime as c where c.crime id=cr.criminal id and jail name="BELLARY central jail");
```

MariaDB [crime\_db]> (SELECT cr.criminal\_id,cr.jail\_name from criminal as cr JOIN crime as c where c.crime\_id=cr.criminal\_id and crime\_type="MURDER")

- -> EXCED.
- -> (SELECT cr.criminal\_id,cr.jail\_name from criminal as cr JOIN crime as c where c.crime\_id=cr.criminal\_id and jail\_name="BELLARY central jail");
  Empty set (0.001 sec)

MariaDB [crime\_db]>

# View:(VIRTUAL TABEL)

Creating a view to show all the details of the criminals who are in the Bellary jail.

```
CREATE VIEW BELLARYJAILCRIMINALS AS SELECT
c.crime_id,c.crime_type,cr.crime_id,cr.criminal_id,cr.criminal_name,cr.jail_name,cr.past_c
rimes from crime as c join criminal as cr on c.crime_id=cr.crime_id where
jail_name="BELLARY CENTRAL JAIL";
```

MariaDB [crime\_db]> CREATE VIEW BELLARYJAILCRIMINALS AS SELECT c.crime\_id,c.crime\_type,cr.criminal\_id,cr.criminal\_name,cr.jail\_name,cr.past\_crimes from crime as c jo in criminal as cr on c.crime\_id=cr.crime\_id where jail\_name="BELLARY CENTRAL JAIL"; Query OK, 0 rows affected (0.009 sec)

MariaDB [crime\_db]> select \* from BELLARYJAILCRIMINALS;

crime_id	crime_type	criminal_id	criminal_name	jail_name	past_crimes
6538	THEFT KIDNAP MURDER	538	PHANI	BELLARY CENTRAL JAIL BELLARY CENTRAL JAIL BELLARY CENTRAL JAIL	4

3 rows in set (0.001 sec)

Query: Update the criminal TEJA whose past crime is 0 to 1.

```
A) UPDATE BELLARYJAILCRIMINALS SET past_crimes=1 WHERE criminal_name="TEJA";
```

```
MariaDB [crime_db]> UPDATE BELLARYJAILCRIMINALS SET past_crimes=1 WHERE criminal_name="TEJA";
Query OK, 1 row affected (0.007 sec)
Rows matched: 1 Changed: 1 Warnings: 0
MariaDB [crime_db]> select * from BELLARYJAILCRIMINALS;
| crime_id | crime_type | criminal_id | criminal_name | jail_name
                                                                              past_crimes
      6524
             THEFT
                                  524
                                        TEJA
                                                        BELLARY CENTRAL JAIL
                                                                               1
      6538
             KIDNAP
                                  538
                                        PHANI
                                                        BELLARY CENTRAL JAIL
      6578
             MURDER
                                  578
                                        HEMANTH
                                                        BELLARY CENTRAL JAIL
                                                                               2
3 rows in set (0.001 sec)
```

We can also see that the criminal past crimes is modified in the criminal table also.

crime_id	criminal_id	criminal_name	past_crimes	jail_name
 6524	524	 TEJA	   1	BELLARY CENTRAL JAIL
6528	528	SHESSHANK	1	KURNOOL CENTRAL JAIL
6534	534	JASAL	Θ	BIHAR CENTRAL JAIL
6538	538	PHANI	4	BELLARY CENTRAL JAIL
6540	540	PUSHPA	2	CHITTOR CENTRAL JAIL
6578	578	HEMANTH	2	BELLARY CENTRAL JAIL

#### **Functions AND Procedures:**

#### **FUNCTION:**

```
DELIMITER $
CREATE FUNCTION find_delay_fir(id int)
RETURNS int
BEGIN
DECLARE d1,d2 DATE;
select date_of_fir into d2 from fir where crime_id=id;
select crime_date into d1 from crime where crime_id=id;
RETURN (day(d1)-day(d2) + 30*(MONTH(d1)-MONTH(d2))+365*(YEAR(d1)-YEAR(d2)));
END$
DELIMITER;
```

#### **PROCEDURE:**

```
DELIMITER $$
CREATE PROCEDURE rai(IN id int,OUT des varchar(10))
BEGIN
DECLARE d1,d2 DATE;
select crime_date INTO d1 from crime where crime_id=id;
select date_of_fir INTO d2 from fir where crime_id=id;
if datediff(d1,d2)>0 then
set des="No";
else
set des="yes";
END IF;
END $$
DELIMITER;
```

#### TRIGGER:

Trigger to be called when the user deleted the fir details:

```
CREATE TABLE fir_backup(crime_id int not null,fir_id int not null,fir_statement varchar(200),fir_writer varchar(200),date_of_fir DATE NOT NULL,PRIMARY KEY(fir_id);
```

First we will create a fir backup table to store the data after deletion by the cop.

```
DELIMITER $$
CREATE TRIGGER fir_trigger BEFORE DELETE ON fir
FOR EACH ROW
BEGIN
IF EXISTS (SELECT * FROM fir WHERE crime_id=OLD.crime_id)
THEN INSERT INTO fir_backup SELECT * FROM fir WHERE crime_id=OLD.crime_id;
END IF;
END$$
DELIMITER;
```

# **Results screenshots:**

Before deletion: ( deleting crime\_id=6540)

<b>†</b>	<del>+</del>	select * from fir; 	+   fir_writer	date_of_fir
6540 6524 6534 6528 6538 6578	504 542 543 582 583 587	RED SANDAL WOOD SMUGLLING NALLAMALA FOREST TAKEN NECKLACE FROM A WOMAN WHILE GOING ON THE BIKE TAKEN MONEY FROM OPPONENT TEAM ROBBED THE JEWELERY SHOP ON THE OPENING DAY KIDNAPPED A CHILD FOR REVENGE PURPOSE A PSHYCO KILLED HIS OWN BROTHER FOR PROPERTY	BANWAR SINGH SHEKAWATH MURTHY DAYA SHANKAR SIVAMANI KRISHNA MANOHAR	2022-09-02 2022-09-12 2022-08-27 2022-08-22 2022-08-20 2022-11-30
6 rows in se	+		KRISHNA MANOF	IAR 

# After deletion:

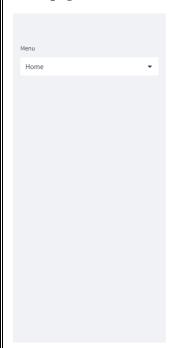
MariaDB [cri	ime_db]> s	select * from fir;		
crime_id	fir_id	fir_statement	fir_writer	date_of_fir
6524   6534   6528   6538   6578	542 543 582 583 587	TAKEN NECKLACE FROM A WOMAN WHILE GOING ON THE BIKE TAKEN MONEY FROM OPPONENT TEAM ROBBED THE JEWELERY SHOP ON THE OPENING DAY KIDNAPPED A CHILD FOR REVENGE PURPOSE A PSHYCO KILLED HIS OWN BROTHER FOR PROPERTY	MURTHY DAYA SHANKAR SIVAMANI KRISHNA MANOHAR	2022-09-12   2022-08-27   2022-08-22   2022-08-20   2022-11-30
5 rows in se		sec)		++

# FIR\_BACKUP:

crime_id	fir_id	fir_statement		fir_writer	+   date_of_fir
6540	504	RED SANDAL WOOD	SMUGGLING NALLAMALA FORE	+ ST   BANWAR SINGH SHEKAWAT	+ H   2022-09-02

## **DEVELOPING A FRONTEND:**

## Homepage:

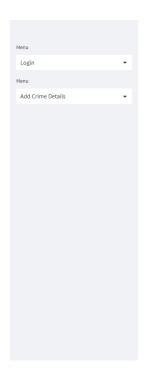


# **CRIME DATABASE**

PES1UG20CS108

**CRIME MANAGEMENT SYSTEM** 

# Login page:



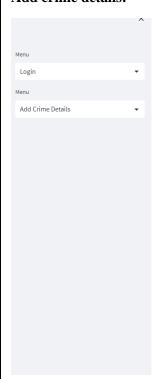
#### **CRIME DATABASE**



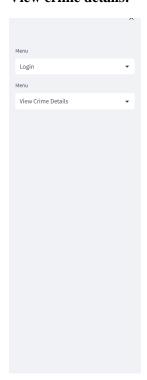
# **Add Crime Data**

Add Crime Details

#### Add crime details:



#### View crime details:

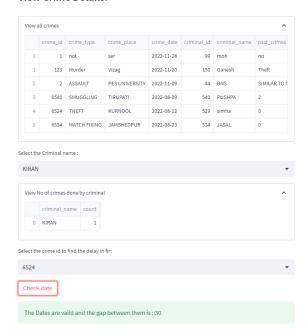


#### **Enter Crime Details:**

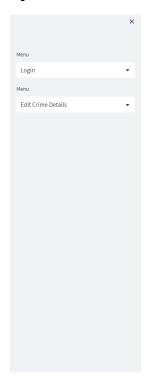
## **Add Crime Data**



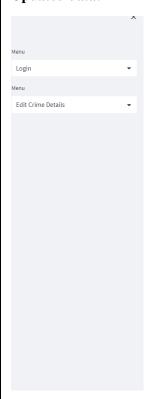
#### View Crime Details:



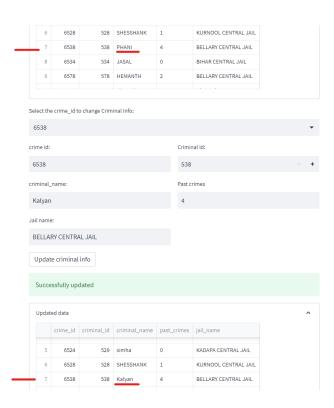
## **Update the criminal data:**



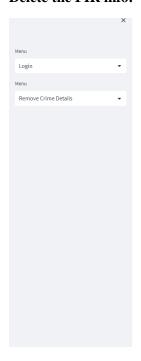
# **Updated data:**

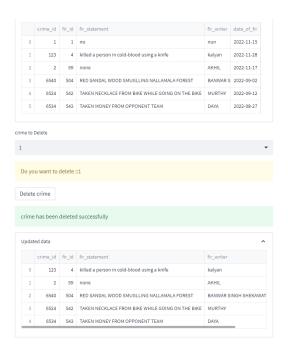






#### **Delete the FIR info:**





#### Back up table

