

1. The database was hosted at localhost using phpMyAdmin and XAMPP.

The screenshot shows the phpMyAdmin interface running on a local host. The left sidebar lists various databases and their tables, including 'New', 'bank', 'Company', 'HOTEL', 'information_schema', 'jail', 'Functions', 'Procedures', 'Tables', 'New', 'Alias', 'Appeals', 'Crimes', 'Crime_charges', 'Crime_codes', 'Crime_officers', 'Criminals', 'Officers', 'Prob_officers', 'Sentences', 'mysql', 'my_DB', 'performance_schema', 'phpmyadmin', 'test', and 'university'. The main content area is divided into several sections:

- General settings:** Shows the server connection collation set to 'utf8mb4_unicode_ci'.
- Database server:** Provides information about the server, including its type (MariaDB), version (10.4.28-MariaDB), and user (root@localhost).
- Appearance settings:** Allows setting the language to English and the theme to 'pmahomme'.
- Web server:** Displays details about the web server setup, including Apache version (2.4.56), PHP version (8.0.28), and MySQL client version (libmysql - mysqld 8.0.28).
- phpMyAdmin:** A footer section with links to version information, documentation, and support resources.

2. Table schemas

```
DESC Alias;
```

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

[Extra options](#)

Field	Type	Null	Key	Default	Extra
Alias_ID	decimal(6,0)	NO	PRI	NULL	
Criminal_ID	decimal(6,0)	YES		NULL	
Alias	varchar(15)	YES		NULL	

Your SQL query has been executed successfully.

```
SELECT COUNT(*) from alias;
```

Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create](#)]

[Extra options](#)

COUNT(*)

10

Your SQL query has been executed successfully.

DESC Appeals;

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

Extra options

Field	Type	Null	Key	Default	Extra
Appeal_ID	decimal(5,0)	NO	PRI	NULL	
Crime_ID	decimal(9,0)	YES		NULL	
Filing_date	date	YES		NULL	
Hearing_date	date	YES		NULL	
Appeal_status	char(1)	YES		P	

Your SQL query has been executed successfully.

SELECT COUNT(*) from Appeals;

Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)]

Extra options

COUNT(*)

Your SQL query has been executed successfully.

DESC Crimes;

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

[Extra options](#)

Field	Type	Null	Key	Default	Extra
Crime_ID	decimal(9,0)	NO	PRI	<i>NULL</i>	
Criminal_ID	decimal(6,0)	YES		<i>NULL</i>	
Classification	char(1)	YES		<i>U</i>	
Date_charged	date	YES		<i>NULL</i>	
Crime_status	char(2)	NO		<i>NULL</i>	
Hearing_date	date	YES		<i>NULL</i>	
Appeal_cut_date	date	YES		<i>NULL</i>	

✓ Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

SELECT count(*) from Crimes;

Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)]

Show all

| Number of rows:

25 ▾

Filter rows:

[Extra options](#)

count(*)

10

Your SQL query has been executed successfully.

DESC Crime_charges;

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

[Extra options](#)

Field	Type	Null	Key	Default	Extra
Charge_ID	decimal(10,0)	NO	PRI	NULL	
Crime_ID	decimal(9,0)	YES		NULL	
Crime_code	decimal(3,0)	YES		NULL	
Charge_status	char(2)	YES		NULL	
Fine_amount	decimal(7,2)	YES		NULL	
Court_fee	decimal(7,2)	YES		NULL	
Amount_paid	decimal(7,2)	YES		NULL	
Pay_due_date	date	YES		NULL	

✓ Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

SELECT count(*) FROM Crime_charges;

Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)]



Show all

| Number of rows:

25 ▾

Filter rows:

[Extra options](#)

count(*)

Your SQL query has been executed successfully.

`DESC Crime_codes;`

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

[Extra options](#)

Field	Type	Null	Key	Default	Extra
Crime_code	decimal(3,0)	NO	PRI	<i>NULL</i>	
Code_description	varchar(30)	NO	UNI	<i>NULL</i>	

Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

`SELECT count(*) from Crime_codes;`

Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP co](#)

Show all | Number of rows: Filter rows:

[Extra options](#)

count(*)

10

Your SQL query has been executed successfully.

DESC Crime_officers;

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

Extra options

Field	Type	Null	Key	Default	Extra
Crime_ID	decimal(9,0)	NO	PRI	NULL	
Officer_ID	decimal(8,0)	NO	PRI	NULL	

Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

SELECT count(*) FROM `Crime_officers`;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP c

Show all | Number of rows: 25 Filter rows

Extra options

count(*)

10

Your SQL query has been executed successfully.

DESC Criminals;

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

Extra options

Field	Type	Null	Key	Default	Extra
Criminal_ID	decimal(6,0)	NO	PRI	NULL	
Last_name	varchar(15)	YES		NULL	
First_name	varchar(10)	YES		NULL	
Street	varchar(30)	YES		NULL	
City	varchar(20)	YES		NULL	
State_code	char(2)	YES		NULL	
Zip	char(5)	YES		NULL	
Phone	char(10)	YES		NULL	
V_status	char(1)	YES		N	
P_Status	char(1)	YES		N	

Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

SELECT count(*) FROM `Criminals`;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code]

Show all

| Number of rows:

25 ▾

Filter rows:

Se

Extra options

count(*)

Your SQL query has been executed successfully.

DESC Officers;

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

Extra options

Field	Type	Null	Key	Default	Extra
Officer_ID	decimal(8,0)	NO	PRI	NULL	
Last_name	varchar(15)	YES		NULL	
First_name	varchar(10)	YES		NULL	
Precinct	char(4)	NO		NULL	
Badge	varchar(14)	YES	UNI	NULL	
Phone	char(10)	YES		NULL	
Officer_status	char(1)	YES		A	

Showing rows 0 - 0 (1 total, Query took 0.0002 seconds.)

SELECT count(*) FROM `Officers`;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Re

Show all

| Number of rows:

25 ▾

Filter rows:

Search

Extra options

count(*)

10

Your SQL query has been executed successfully.

DESC Prob_officers;

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

Extra options

Field	Type	Null	Key	Default	Extra
Prob_ID	decimal(5,0)	NO	PRI	NULL	
Last_name	varchar(15)	YES		NULL	
First_name	varchar(10)	YES		NULL	
Street	varchar(30)	YES		NULL	
City	varchar(20)	YES		NULL	
State_code	char(2)	YES		NULL	
Zip	char(5)	YES		NULL	
Phone	char(10)	YES		NULL	
Email	varchar(30)	YES		NULL	
Prob_Status	char(1)	NO		NULL	

✓ Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

SELECT count(*) FROM `Prob_officers`;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code]

Show all

| Number of rows:

25 ▾

Filter rows

Extra options

count(*)

10

Your SQL query has been executed successfully.

DESC Sentences;

[[Edit inline](#)] [[Edit](#)] [[Create PHP code](#)]

[Extra options](#)

Field	Type	Null	Key	Default	Extra
Sentence_ID	decimal(6,0)	NO	PRI	NULL	
Criminal_ID	decimal(6,0)	YES		NULL	
Sentence_type	char(1)	YES		NULL	
Prob_ID	decimal(5,0)	YES		NULL	
StartDate	date	YES		NULL	
EndDate	date	YES		NULL	
Violations	decimal(3,0)	NO		NULL	

✓ Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

SELECT count(*) FROM `Sentences`;

Profiling [[Edit inline](#)] [[Edit](#)] [[Explain SQL](#)] [[Create PHP code](#)] [

Show all

| Number of rows:

25 ▾

Filter rows:

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[Extra options](#)

count(*)

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3. Data evidence

Showing rows 0 - 9 (10 total, Query took 0.0002 seconds.)

SELECT * FROM `Alias`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all

Number of rows:

25 ▾

Filter rows:

Search this table

Sort by key

Extra options

		Alias_ID	Criminal_ID	Alias
<input type="checkbox"/>	 Edit	 Copy	 Delete	101101 100001 Joe
<input type="checkbox"/>	 Edit	 Copy	 Delete	101102 100002 Jane
<input type="checkbox"/>	 Edit	 Copy	 Delete	101103 100003 Rob
<input type="checkbox"/>	 Edit	 Copy	 Delete	101104 100004 Mike
<input type="checkbox"/>	 Edit	 Copy	 Delete	101105 100005 Mary
<input type="checkbox"/>	 Edit	 Copy	 Delete	101106 100006 Car
<input type="checkbox"/>	 Edit	 Copy	 Delete	101107 100007 Liz
<input type="checkbox"/>	 Edit	 Copy	 Delete	101108 100008 Trash
<input type="checkbox"/>	 Edit	 Copy	 Delete	101109 100009 Animal
<input type="checkbox"/>	 Edit	 Copy	 Delete	101110 100010 Jose

Showing rows 0 - 10 (11 total, Query took 0.0002 seconds.)

SELECT * FROM `Appeals`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None

Extra options

	Appeal_ID	Crime_ID	Filing_date	Hearing_date	Appeal_status
<input type="checkbox"/>	70000	123340001	2023-05-01	2023-06-01	P
<input type="checkbox"/>	70001	123340001	2023-05-02	2023-06-02	P
<input type="checkbox"/>	70002	123340001	2023-06-01	2023-07-01	P
<input type="checkbox"/>	70003	123340001	2023-07-01	2023-08-01	P
<input type="checkbox"/>	70004	123340001	2023-08-01	2023-09-01	P
<input type="checkbox"/>	70005	123340001	2023-08-11	2023-09-11	P
<input type="checkbox"/>	70006	123340001	2023-09-01	2023-10-01	P
<input type="checkbox"/>	70007	123340001	2023-10-01	2023-11-01	P
<input type="checkbox"/>	70008	123340001	2024-01-01	2024-02-01	P
<input type="checkbox"/>	70009	123340001	2024-02-01	2024-03-01	P
<input type="checkbox"/>	70010	123340001	2024-03-01	2024-04-01	P

Showing rows 0 - 9 (10 total, Query took 0.0002 seconds.)

SELECT * FROM `Crimes`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 ▾ Filter rows: Search this table Sort by key: None ▾

Extra options

	Crime_ID	Criminal_ID	Classification	Date_charged	Crime_status	Hearing_date	Appeal_cut_date
<input type="checkbox"/>	123340001	100001	U	2022-01-10	CA	2022-02-15	2023-03-05
<input type="checkbox"/>	123340002	100002	F	2022-02-15	CL	2022-03-18	2023-04-04
<input type="checkbox"/>	123340003	100003	M	2022-03-21	IA	2022-04-20	2023-05-16
<input type="checkbox"/>	123340004	100004	U	2023-04-16	CL	2023-05-22	2023-06-17
<input type="checkbox"/>	123340005	100005	F	2023-05-18	CA	2023-06-24	2023-07-29
<input type="checkbox"/>	123340006	100006	M	2023-06-20	CL	2023-07-30	2023-08-10
<input type="checkbox"/>	123340007	100007	U	2023-07-22	IA	2023-08-28	2023-09-12
<input type="checkbox"/>	123340008	100008	F	2023-08-24	CL	2023-09-30	2023-10-15
<input type="checkbox"/>	123340009	100009	M	2023-09-26	CA	2023-11-02	2023-11-17
<input type="checkbox"/>	123340010	100010	U	2023-10-28	CL	2024-01-05	2024-04-01

Showing rows 0 - 9 (10 total, Query took 0.0009 seconds.)

SELECT * FROM `Crime_charges`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

Charge_ID	Crime_ID	Crime_code	Charge_status	Fine_amount	Court_fee	Amount_paid	Pay_due_date
1243000000	100001	701	PD	2000.00	200.00	2200.00	2024-01-01
1243000001	100002	702	GL	100.00	20.00	120.00	2024-02-01
1243000002	100003	703	GL	100.00	20.00	120.00	2024-03-01
1243000003	100004	704	PD	2000.00	200.00	2200.00	2024-04-01
1243000004	100005	705	NG	4000.00	400.00	4400.00	2024-05-01
1243000005	100006	706	NG	5000.00	500.00	5500.00	2024-06-01
1243000006	100007	707	PD	2500.00	200.00	270.00	2024-07-01
1243000007	100008	708	PD	400.00	20.00	420.00	2024-08-01
1243000008	100009	709	NG	1000.00	100.00	1100.00	2024-09-01
1243000009	100010	710	GL	1000.00	100.00	1100.00	2025-02-01

Showing rows 0 - 9 (10 total, Query took 0.0003 seconds.)

SELECT * FROM `Crime_codes`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

Crime_code	Code_description
703	Cyber security attack
706	Cyberbullying
702	Harassment
707	Kidnapping
708	Murder
704	Noise issue
709	Rape
701	Robbery
705	Speeding
710	Stalking

Showing rows 0 - 9 (10 total, Query took 0.0002 seconds.)

SELECT * FROM `Crime_officers`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all

| Number of rows:

25 ▾

Filter rows:

Search this table

Sort by ke

Extra options

			Crime_ID	Officer_ID
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340001 90000001
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340002 90000001
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340003 90000002
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340004 90000003
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340005 90000007
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340006 90000005
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340007 90000001
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340007 90000002
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340007 90000003
<input type="checkbox"/>	 Edit	 Copy	 Delete	123340007 90000004

Showing rows 0 - 9 (10 total, Query took 0.0002 seconds.)

SELECT * FROM `Criminals`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]



Show all

Number of rows: 25

Filter rows: Search this table

Sort by key: None

Extra options

	Criminal_ID	Last_name	First_name	Street	City	State_code	Zip	Phone	V_status	P_Status
<input type="checkbox"/>	100001	Smith	John	370 Jay Street	Brooklyn	NY	11201	3228545898	N	N
<input type="checkbox"/>	100002	Johnson	Jane	1134 Hillside Drive	Queens	NY	11701	1115674986	Y	N
<input type="checkbox"/>	100003	Williams	Robert	444 Maple Tree St	Columbus	OH	43210	1245554209	N	Y
<input type="checkbox"/>	100004	Brown	Michael	7842 Old Wine Dr	Columbus	OH	43201	3305248078	N	N
<input type="checkbox"/>	100005	Jones	Mary	89 Gold St	Cleveland	OH	44236	4125789890	Y	N
<input type="checkbox"/>	100006	Garcia	Carlos	6 Metro Tech	Lakewood	NM	87001	1157839455	N	N
<input type="checkbox"/>	100007	Miller	Elizabeth	789 wooded view St	Denver	CO	98001	4432112344	Y	N
<input type="checkbox"/>	100008	Frank	Qin	890 Spring St	Cleveland	OH	44230	9897864167	Y	N
<input type="checkbox"/>	100009	Haoyu	Xie	5 Metro	Brooklyn	NY	11201	9098987877	N	N
<input type="checkbox"/>	100010	Dee	Joseph	124 Canel St	Brookside	NV	89005	1859684567	Y	Y

Showing rows 0 - 9 (10 total, Query took 0.0002 seconds.)

SELECT * FROM `Officers`

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]



Show all

Number of rows: 25

Filter rows: Search this table

Sort by key: None

Extra options

	Officer_ID	Last_name	First_name	Precinct	Badge	Phone	Officer_status
<input type="checkbox"/>	90000001	Andrews	Bronte	101	404001	3300123456	A
<input type="checkbox"/>	90000002	Vaughn	Abdullah	101	404002	4756477898	A
<input type="checkbox"/>	90000003	Parker	Jesse	116	404003	4446667654	A
<input type="checkbox"/>	90000004	Solis	Bartosz	54	404004	8987876789	A
<input type="checkbox"/>	90000005	Mayer	Gary	101	404005	1409087463	A
<input type="checkbox"/>	90000006	Mcdonald	Penelope	101	404006	3332216754	A
<input type="checkbox"/>	90000007	Villanueva	Peter	51	404007	6657894532	A
<input type="checkbox"/>	90000008	Mcdaniel	Jada	105	404008	1102234578	A
<input type="checkbox"/>	90000009	Hubbard	Madiha	121	404009	9098987890	A
<input type="checkbox"/>	90000010	Moss	Alison	101	404010	1244432211	A

Showing rows 0 - 9 (10 total, Query took 0.0001 seconds.)

```
SELECT * FROM `Prob_officers`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	Prob_ID	Last_name	First_name	Street	City	State_code	Zip	Phone	Email	Prob_Status
<input type="checkbox"/>	20001	Lee	Kathleen	123 Justice Rd	Fairview	CA	90001	3235550123	klee@gmail.com	A
<input type="checkbox"/>	20002	Lau	Andy	456 Law Ln	Liberty	TX	75002	2145550124	alau@gmail.com	A
<input type="checkbox"/>	20003	Fisher	Nancy	789 Order St	Justice	FL	33102	3055550125	nfisher@gmail.com	A
<input type="checkbox"/>	20004	Gray	Gavin	101 Patrol Pl	Civic	NY	10002	2125550126	ggray@gmail.com	I
<input type="checkbox"/>	20005	Evans	Tim	202 Guard Gt	Lawton	CO	80015	3035550127	tevans@gmail.com	A
<input type="checkbox"/>	20006	Schnabel	Thomas	303 Shield St	Peaceful	NV	89102	7025550128	tschnabel@gmail.com	A
<input type="checkbox"/>	20007	Guo	Kai	404 Badge Blvd	Safetown	AZ	85002	6025550129	kguocom	A
<input type="checkbox"/>	20008	Chow	Mia	505 Cop Ct	Secure	MI	48002	3135550130	mchow@gmail.com	A
<input type="checkbox"/>	20009	Nguyen	Nick	505 Cop Ct	Secure	MI	48002	3135550130	nnguyen@gmail.com	I
<input type="checkbox"/>	20010	Lopez	Diego	505 Cop Ct	Secure	MI	48002	3135550130	dlopez@gmail.com	A

Showing rows 0 - 9 (10 total, Query took 0.0002 seconds.)

```
SELECT * FROM `Sentences`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	Sentence_ID	Criminal_ID	Sentence_type	Prob_ID	StartDate	EndDate	Violations
<input type="checkbox"/>	300001	100001	P	20001	2023-05-01	2024-04-01	1
<input type="checkbox"/>	300002	100003	J	20002	2023-05-01	2023-11-01	1
<input type="checkbox"/>	300003	100010	P	20003	2023-06-01	2024-06-01	1
<input type="checkbox"/>	300004	100001	J	20004	2023-06-01	2023-09-01	2
<input type="checkbox"/>	300005	100001	P	20005	2023-08-01	2024-08-01	1
<input type="checkbox"/>	300006	100001	J	20006	2023-09-01	2023-12-01	1
<input type="checkbox"/>	300007	100002	P	20007	2023-10-01	2024-10-01	2
<input type="checkbox"/>	300008	100008	J	20008	2023-11-01	2024-01-01	1
<input type="checkbox"/>	300009	100004	P	20009	2023-12-01	2024-12-01	1
<input type="checkbox"/>	300010	100001	J	20010	2024-01-01	2024-03-01	3

4. All SQL commands

```
create table Criminals(
    Criminal_ID DECIMAL(6, 0),
    Last_name VARCHAR(15),
    First_name VARCHAR(10),
    Street VARCHAR(30),
    City VARCHAR(20),
    State_code CHAR(2),
```

```

Zip CHAR(5),
Phone CHAR(10),
V_status CHAR(1) DEFAULT 'N',
P_Status CHAR(1) DEFAULT 'N',
PRIMARY KEY (Criminal_ID),
CHECK (V_status = 'Y' OR V_status = 'N'),
CHECK (P_status = 'Y' OR P_status = 'N')
);

create table Alias(
    Alias_ID DECIMAL(6, 0),
    Criminal_ID DECIMAL(6, 0) REFERENCES Criminals(Criminal_ID),
    Alias VARCHAR(15),
    PRIMARY KEY (Alias_ID)
);

create table Crimes(
    Crime_ID DECIMAL(9, 0),
    Criminal_ID DECIMAL(6, 0) REFERENCES Criminals(Criminal_ID),
    Classification CHAR(1) DEFAULT 'U',
    Date_charged DATE,
    Crime_status CHAR(2) NOT NULL,
    Hearing_date DATE,
    Appeal_cut_date DATE,

    PRIMARY KEY (Crime_ID),
    CHECK (hearing_date > date_charged),
    CHECK (Classification IN ('F', 'M', 'O', 'U')),
    CHECK (Crime_status IN ('CL', 'CA', 'IA'))
);

create table Prob_officers(
    Prob_ID DECIMAL(5, 0),
    Last_name VARCHAR(15),
    First_name VARCHAR(10),
    Street VARCHAR(30),
    City VARCHAR(20),
    State_code CHAR(2),
    Zip CHAR(5),
    Phone CHAR(10),
    Email VARCHAR(30),
    Prob_Status CHAR(1) NOT NULL,

    PRIMARY KEY (Prob_ID),
    CHECK (Prob_Status IN ('A', 'I'))
);

create table Sentences(

```

```

Sentence_ID DECIMAL(6, 0),
Criminal_ID DECIMAL(6, 0) REFERENCES Criminals(Criminal_ID),
Sentence_type CHAR(1),
Prob_ID DECIMAL(5, 0) REFERENCES Prob_officers(Prob_ID),
StartDate DATE,
EndDate DATE,
Violations DECIMAL(3, 0) NOT NULL,
PRIMARY KEY (Sentence_ID),
CHECK (EndDate > StartDate),
CHECK (Sentence_type IN ('J', 'H', 'P'))
);

create table Officers(
Officer_ID DECIMAL(8, 0),
Last_name VARCHAR(15),
First_name VARCHAR(10),
Precinct CHAR(4) NOT NULL,
Badge VARCHAR(14),
Phone CHAR(10),
Officer_status CHAR(1) DEFAULT 'A',
UNIQUE (Badge),
PRIMARY KEY (Officer_ID),
CHECK (Officer_status IN ('A', 'I'))
);

create table Crime_officers(
Crime_ID DECIMAL(9, 0) REFERENCES Crimes(Crime_ID),
Officer_ID DECIMAL(8, 0) REFERENCES Officers(Officer_ID),
PRIMARY KEY (Crime_ID, Officer_ID)
);

create table Appeals(
Appeal_ID DECIMAL(5, 0),
Crime_ID DECIMAL(9, 0) REFERENCES Crimes(Crime_ID),
Filing_date DATE,
Hearing_date DATE,
Appeal_status CHAR(1) DEFAULT 'P',
PRIMARY KEY (Appeal_ID),
CHECK (Appeal_status IN ('P', 'A', 'D'))
);

```

```

create table Crime_codes(
    Crime_code DECIMAL(3, 0) NOT NULL,
    Code_description VARCHAR(30) NOT NULL,
    UNIQUE(Code_description),
    PRIMARY KEY (Crime_code)
);

create table Crime_charges(
    Charge_ID DECIMAL(10, 0),
    Crime_ID DECIMAL(9, 0) REFERENCES Crimes(Crime_ID),
    Crime_code DECIMAL(3, 0) REFERENCES Crime_code(Crime_code),
    Charge_status CHAR(2),
    Fine_amount DECIMAL(7, 2),
    Court_fee DECIMAL(7, 2),
    Amount_paid DECIMAL(7, 2),
    Pay_due_date DATE,
    PRIMARY KEY (Charge_ID),
    CHECK (Charge_status IN ('PD', 'GL', 'NG'))
);

INSERT INTO Criminals (Criminal_ID, Last_name, First_name, Street, City, State_code, Zip, Phone, V_status, P_Status) VALUES
(100001, 'Smith', 'John', '370 Jay Street', 'Brooklyn', 'NY', '11201', '3228545898', 'N', 'N'),
(100002, 'Johnson', 'Jane', '1134 Hillside Drive', 'Queens', 'NY', '11701', '1115674986', 'Y', 'N'),
(100003, 'Williams', 'Robert', '444 Maple Tree St', 'Columbus', 'OH', '43210', '1245554209', 'N', 'Y'),
(100004, 'Brown', 'Michael', '7842 Old Wine Dr', 'Columbus', 'OH', '43201', '3305248078', 'N', 'N'),
(100005, 'Jones', 'Mary', '89 Gold St', 'Cleveland', 'OH', '44236', '4125789890', 'Y', 'N'),
(100006, 'Garcia', 'Carlos', '6 Metro Tech', 'Lakewood', 'NM', '87001', '1157839455', 'N', 'N'),
(100007, 'Miller', 'Elizabeth', '789 wooded view St', 'Denver', 'CO', '98001', '4432112344', 'N', 'Y'),
(100008, 'Frank', 'Qin', '890 Spring St', 'Cleveland', 'OH', '44230', '9897864167', 'Y', 'N'),
(100009, 'Haoyu', 'Xie', '5 Metro', 'Brooklyn', 'NY', '11201', '9098987877', 'N', 'N'),
(100010, 'Dee', 'Joseph', '124 Canel St', 'Brookside', 'NV', '89005', '1859684567', 'Y', 'Y');

INSERT INTO Alias (Alias_ID, Criminal_ID, Alias) VALUES
(101101, 100001, 'Joe'),
(101102, 100002, 'Jane'),

```

```

(101103, 100003, 'Rob'),
(101104, 100004, 'Mike'),
(101105, 100005, 'Mary'),
(101106, 100006, 'Car'),
(101107, 100007, 'Liz'),
(101108, 100008, 'Trash'),
(101109, 100009, 'Animal'),
(101110, 100010, 'Jose');

INSERT INTO CRIMES (Crime_ID, Criminal_ID, Classification, Date_charged, Crime_status,
Hearing_date, Appeal_cut_date) VALUES
(123340001, 100001, 'U', '2022-01-10', 'CA', '2022-02-15', '2023-03-05'),
(123340002, 100002, 'F', '2022-02-15', 'CL', '2022-03-18', '2023-04-04'),
(123340003, 100003, 'M', '2022-03-21', 'IA', '2022-04-20', '2023-05-16'),
(123340004, 100004, 'U', '2023-04-16', 'CL', '2023-05-22', '2023-06-17'),
(123340005, 100005, 'F', '2023-05-18', 'CA', '2023-06-24', '2023-07-29'),
(123340006, 100006, 'M', '2023-06-20', 'CL', '2023-07-30', '2023-08-10'),
(123340007, 100007, 'U', '2023-07-22', 'IA', '2023-08-28', '2023-09-12'),
(123340008, 100008, 'F', '2023-08-24', 'CL', '2023-09-30', '2023-10-15'),
(123340009, 100009, 'M', '2023-09-26', 'CA', '2023-11-02', '2023-11-17'),
(123340010, 100010, 'U', '2023-10-28', 'CL', '2024-01-05', '2024-04-01');

INSERT INTO Prob_officers (Prob_ID, Last_name, First_name, Street, City, State_code,
Zip, Phone, Email, Prob_Status) VALUES
(20001, 'Lee', 'Kathleen', '123 Justice Rd', 'Fairview', 'CA', '90001', '3235550123',
'klee@gmail.com', 'A'),
(20002, 'Lau', 'Andy', '456 Law Ln', 'Liberty', 'TX', '75002', '2145550124',
'alau@gmail.com', 'A'),
(20003, 'Fisher', 'Nancy', '789 Order St', 'Justice', 'FL', '33102', '3055550125',
'nfisher@gmail.com', 'A'),
(20004, 'Gray', 'Gavin', '101 Patrol Pl', 'Civic', 'NY', '10002', '2125550126',
'ggray@gmail.com', 'I'),
(20005, 'Evans', 'Tim', '202 Guard Gt', 'Lawton', 'CO', '80015', '3035550127',
'tevans@gmail.com', 'A'),
(20006, 'Schnabel', 'Thomas', '303 Shield Sh', 'Peaceful', 'NV', '89102',
'7025550128', 'tschnabel@gmail.com', 'A'),
(20007, 'Guo', 'Kai', '404 Badge Blvd', 'Safetown', 'AZ', '85002', '6025550129',
'kguocom', 'A'),
(20008, 'Chow', 'Mia', '505 Cop Ct', 'Secure', 'MI', '48002', '3135550130',
'mchow@gmail.com', 'A'),
(20009, 'Nguyen', 'Nick', '505 Cop Ct', 'Secure', 'MI', '48002', '3135550130',
'nnguyen@gmail.com', 'I'),
(20010, 'Lopez', 'Diego', '505 Cop Ct', 'Secure', 'MI', '48002', '3135550130',
'dlopez@gmail.com', 'A');

INSERT INTO Sentences (Sentence_ID, Criminal_ID, Sentence_type, Prob_ID, StartDate,
EndDate, Violations) VALUES
(300001, 100001, 'P', 20001, '2023-05-01', '2024-04-01', 1),

```

```
(300002, 100003, 'J', 20002, '2023-05-01', '2023-11-01', 1),
(300003, 100010, 'P', 20003, '2023-06-01', '2024-06-01', 1),
(300004, 100001, 'J', 20004, '2023-06-01', '2023-09-01', 2),
(300005, 100001, 'P', 20005, '2023-08-01', '2024-08-01', 1),
(300006, 100001, 'J', 20006, '2023-09-01', '2023-12-01', 1),
(300007, 100002, 'P', 20007, '2023-10-01', '2024-10-01', 2),
(300008, 100008, 'J', 20008, '2023-11-01', '2024-01-01', 1),
(300009, 100004, 'P', 20009, '2023-12-01', '2024-12-01', 1),
(300010, 100001, 'J', 20010, '2024-01-01', '2024-03-01', 3);
```

```
INSERT INTO Officers (Officer_ID, Last_name, First_name, Precinct, Badge, Phone,
Officer_status) VALUES
(90000001, 'Andrews', 'Bronte', '101', '404001', '3300123456', 'A'),
(90000002, 'Vaughn', 'Abdullah', '101', '404002', '4756477898', 'A'),
(90000003, 'Parker', 'Jesse', '116', '404003', '4446667654', 'A'),
(90000004, 'Solis', 'Bartosz', '54', '404004', '8987876789', 'A'),
(90000005, 'Mayer', 'Gary', '101', '404005', '1409087463', 'A'),
(90000006, 'McDonald', 'Penelope', '101', '404006', '3332216754', 'A'),
(90000007, 'Villanueva', 'Peter', '51', '404007', '6657894532', 'A'),
(90000008, 'McDaniel', 'Jada', '105', '404008', '1102234578', 'A'),
(90000009, 'Hubbard', 'Madiha', '121', '404009', '9098987890', 'A'),
(90000010, 'Moss', 'Alison', '101', '404010', '1244432211', 'A');
```

```
INSERT INTO Crime_officers(Crime_ID, Officer_ID) VALUES
(123340001, 90000001),
(123340002, 90000001),
(123340003, 90000002),
(123340004, 90000003),
(123340005, 90000007),
(123340006, 90000005),
(123340007, 90000001),
(123340007, 90000002),
(123340007, 90000003),
(123340007, 90000004);
```

```
INSERT INTO Crime_codes(Crime_code, Code_description) VALUES
(701, 'Robbery'),
(702, 'Harassment'),
(703, 'Cyber security attack'),
(704, 'Noise issue'),
(705, 'Speeding'),
(706, 'Cyberbullying'),
(707, 'Kidnapping'),
(708, 'Murder'),
```

```

(709, 'Rape'),
(710, 'Stalking');

INSERT INTO Appeals (Appeal_ID, Crime_ID, Filing_date, Hearing_date, Appeal_status)
VALUES
(70000, 123340001, '2023-05-01', '2023-06-01', 'P'),
(70001, 123340001, '2023-05-02', '2023-06-02', 'P'),
(70002, 123340001, '2023-06-01', '2023-07-01', 'P'),
(70003, 123340001, '2023-07-01', '2023-08-01', 'P'),
(70004, 123340001, '2023-08-01', '2023-09-01', 'P'),
(70005, 123340001, '2023-08-11', '2023-09-11', 'P'),
(70006, 123340001, '2023-09-01', '2023-10-01', 'P'),
(70007, 123340001, '2023-10-01', '2023-11-01', 'P'),
(70008, 123340001, '2024-01-01', '2024-02-01', 'P'),
(70009, 123340001, '2024-02-01', '2024-03-01', 'P'),
(70010, 123340001, '2024-03-01', '2024-04-01', 'P');

INSERT INTO Crime_charges(Charge_ID, Crime_ID, Crime_code, Charge_status, Fine_amount,
Court_fee, Amount_paid, Pay_due_date) VALUES
(1243000000, 100001, 701, 'PD', 2000, 200, 2200, '2024-01-01'),
(1243000001, 100002, 702, 'GL', 100, 20, 120, '2024-02-01'),
(1243000002, 100003, 703, 'GL', 100, 20, 120, '2024-03-01'),
(1243000003, 100004, 704, 'PD', 2000, 200, 2200, '2024-04-01'),
(1243000004, 100005, 705, 'NG', 4000, 400, 4400, '2024-05-01'),
(1243000005, 100006, 706, 'NG', 5000, 500, 5500, '2024-06-01'),
(1243000006, 100007, 707, 'PD', 2500, 200, 270, '2024-07-01'),
(1243000007, 100008, 708, 'PD', 400, 20, 420, '2024-08-01'),
(1243000008, 100009, 709, 'NG', 1000, 100, 1100, '2024-09-01'),
(1243000009, 100010, 710, 'GL', 1000, 100, 1100, '2025-02-01');

-- delete appeal
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_appeal(iAppeal_ID DECIMAL(5, 0))
BEGIN
    DELETE FROM Appeals
    WHERE Appeal_ID = iAppeal_ID;
END//
DELIMITER ;

-- delete crime charge
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_crime_charge(iCharge_ID DECIMAL(10, 0))

```

```

BEGIN
    DELETE FROM Crime_Charges
    WHERE Charge_ID = iCharge_ID;
END// 
DELIMITER ;

-- delete sentence
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_sentence(iSentence_ID DECIMAL(6, 0))
BEGIN
    DELETE FROM Sentences
    WHERE Sentence_ID = iSentence_ID;
END// 
DELIMITER ;

-- delete crime_officer pair
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_crime_officer(iCrime_ID DECIMAL(9, 0),
    iOfficer_ID DECIMAL(8, 0))
BEGIN
    DELETE FROM CrimeOfficers
    WHERE Crime_ID = iCrime_ID AND Officer_ID = iOfficer_ID;
END// 
DELIMITER ;

-- delete alias
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_alias(iAlias_ID DECIMAL(6, 0))
BEGIN
    DELETE FROM Alias
    WHERE Alias_ID = iAlias_ID;
END// 
DELIMITER ;

-- delete prob_officer, with all sentences related to it
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_prob_officer(iProb_ID DECIMAL(5, 0))
BEGIN
    DELETE FROM ProbOfficers
    WHERE Prob_ID = iProb_ID;

    DELETE FROM Sentences
    WHERE Prob_ID = iProb_ID;
END// 

```

```

DELIMITER ;

-- delete officer, with all crime_officer pairs related to it
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_officer(iOfficer_ID DECIMAL(8, 0))
BEGIN
    DELETE FROM Officers
    WHERE Officer_ID = iOfficer_ID;

    DELETE FROM CrimeOfficers
    WHERE Officer_ID = iOfficer_ID;
END//
DELIMITER ;

-- delete crime
-- with all crime_officer pairs/Appeals/crime_charges realted to it
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_crime(iCrime_ID DECIMAL(9, 0))
BEGIN
    DELETE FROM Crimes
    WHERE Crime_ID = iCrime_ID;

    DELETE FROM CrimeOfficers
    WHERE Crime_ID = iCrime_ID;

    DELETE FROM Appeals
    WHERE Crime_ID = iCrime_ID;

    DELETE FROM Crime_Charges
    WHERE Crime_ID = iCrime_ID;
END//
DELIMITER ;

-- delete criminal
-- with all alias/crimes/sentences related to it
DELIMITER //
CREATE OR REPLACE PROCEDURE delete_criminal(iCriminal_ID DECIMAL(6, 0))
BEGIN
    DECLARE done INT DEFAULT 0;
    DECLARE Current_Crime_ID DECIMAL(9, 0);
    DECLARE Crime_ID_Cur CURSOR FOR (
        SELECT Crime_ID
        FROM Crimes
        WHERE Criminal_ID = iCriminal_ID
    );

```

```

DECLARE CONTINUE HANDLER FOR NOT FOUND SET done = 1;

DELETE FROM Criminals
WHERE Criminal_ID = iCriminal_ID;

DELETE FROM Alias
WHERE Criminal_ID = iCriminal_ID;

DELETE FROM Sentences
WHERE Criminal_ID = iCriminal_ID;

OPEN Crime_ID_Cur;
REPEAT
    FETCH Crime_ID_Cur INTO Current_Crime_ID;
    CALL delete_crime(Current_Crime_ID);
UNTIL done
END REPEAT;

END//;
DELIMITER ;
-- insert a new criminal
DELIMITER //;
CREATE OR REPLACE PROCEDURE new_criminal(
    ilast VARCHAR(15), ifirst VARCHAR(10), istreet VARCHAR(30),
    icity VARCHAR(20), istate CHAR(2), izip CHAR(5),
    iphone CHAR(10), iv_status CHAR(1), ip_status CHAR(1))
BEGIN
    INSERT INTO Criminals VALUES
    (get_new_criminal_ID(), ilast, ifirst, istreet, icity, istate,
     izip, iphone, iv_status, ip_status);
END//;
DELIMITER ;

-- insert a new crime
DELIMITER //;
CREATE OR REPLACE PROCEDURE new_crime(
    icriminal_ID DECIMAL(6,0),
    iclassification CHAR(1),
    idate_charged DATE,
    icrime_status CHAR(2),
    ihearing_date DATE,
    iappeal_cut_date DATE)
BEGIN
    IF (icriminal_ID IN (SELECT Criminal_ID FROM Criminals)) THEN
        INSERT INTO Crimes VALUES
        (get_new_crime_ID(), iclassification, idate_charged,
         icrime_status, ihearing_date, iappeal_cut_date);
    END IF;
END//;
DELIMITER ;

```

```

    END IF;
END//  

DELIMITER ;  
  

-- insert a new prob_officer  

DELIMITER //  

CREATE OR REPLACE PROCEDURE new_prob_officer(  

    iLast_name VARCHAR(15),  

    iFirst_name VARCHAR(10),  

    iStreet VARCHAR(30),  

    iCity VARCHAR(20),  

    iState_code CHAR(2),  

    iZip CHAR(5),  

    iPhone CHAR(10),  

    iEmail VARCHAR(30),  

    iProb_Status CHAR(1))  

BEGIN  

    INSERT INTO Prob_Officers VALUES  

    (get_new_prob_ID(), iProb_ID, iLast_name, iFirst_name, iStreet,  

     iCity, iState_code, iZip, iPhone, iEmail, iProb_Status);  

END//  

DELIMITER ;  
  

-- insert a new officer  

DELIMITER //  

CREATE OR REPLACE PROCEDURE new_officer(  

    iLast_name VARCHAR(15),  

    iFirst_name VARCHAR(10),  

    iPrecinct CHAR(4),  

    iBadge VARCHAR(14),  

    iPhone CHAR(10),  

    iOfficer_status CHAR(1))  

BEGIN  

    INSERT INTO Officers VALUES  

    (get_new_officer_ID(), iLast_name, iFirst_name, iPrecinct, iBadge,  

     iPhone, iOfficer_status);  

END//  

DELIMITER ;  
  

-- insert a new sentence  

DELIMITER //  

CREATE OR REPLACE PROCEDURE new_sentence(  

    iCriminal_ID DECIMAL(6, 0),  

    iSentence_type CHAR(1),  

    iProb_ID DECIMAL(5, 0),

```

```

    iStartDate DATE,
    iEndDate DATE,
    iViolations DECIMAL(3, 0))
BEGIN
    IF ((iCriminal_ID IN (SELECT criminal_ID FROM Criminals)) AND
        (iProb_ID IN (SELECT Prob_ID FROM ProbOfficers))) THEN

        INSERT INTO Sentences VALUES
        (get_new_sentence_ID(), iCriminal_ID, iSentence_type, iProb_ID,
         iStartDate, iEndDate, iViolations);

    END IF;
END//  

DELIMITER ;

```



```

-- insert a new appeal
DELIMITER //
CREATE OR REPLACE PROCEDURE new_appeal(
    iCrime_ID DECIMAL(9, 0),
    iFiling_date DATE,
    iHearing_date DATE,
    iAppeal_status CHAR(1)
)
BEGIN
    IF (iCrime_ID IN (SELECT Crime_ID FROM Crimes)) THEN

        INSERT INTO Appeals VALUES
        (get_new_appeal_ID(), iCrime_ID, iFiling_date,
         iHearing_date, iAppeal_status);

    END IF;
END//  

DELIMITER ;

```



```

-- insert a new crime charge
DELIMITER //
CREATE OR REPLACE PROCEDURE new_charge(
    iCrime_ID DECIMAL(9, 0),
    iCrime_code DECIMAL(3, 0),
    iCharge_status CHAR(2),
    iFine_amount DECIMAL(7, 2),
    iCourt_fee DECIMAL(7, 2),
    iAmount_paid DECIMAL(7, 2),
    iPay_due_date DATE
)

```

```

BEGIN
    IF ((iCrime_ID IN (SELECT Crime_ID FROM Crimes)) AND
        (iCrime_code IN (SELECT Crime_Code FROM Crime_Codes))) THEN

        INSERT INTO Crime_Charges VALUES
        (get_new_charge_ID(), iCrime_ID, iCrime_code, iCharge_status, iFine_amount,
         iCourt_fee, iAmount_paid, iPay_due_date);

    END IF;
END//  

DELIMITER ;

-- insert a new crime_officer
DELIMITER //
CREATE OR REPLACE PROCEDURE new_crime_officer(
    iCrime_ID DECIMAL(9, 0),
    iOfficer_ID DECIMAL(8, 0)
)
BEGIN
    IF ((iCrime_ID IN (SELECT Crime_ID FROM Crimes)) AND
        (iOfficer_ID IN (SELECT Officer_ID FROM Officers))) THEN

        INSERT INTO CrimeOfficers VALUES
        (iCrime_ID, iOfficer_ID);

    END IF;
END//  

DELIMITER ;
-- PROCEDURE:
-- given a criminal name, search for the crinal info
DELIMITER //
CREATE OR REPLACE PROCEDURE search_criminal(ilast VARCHAR(15), ifirst VARCHAR(10))
BEGIN
    SELECT *
    FROM Criminals
    WHERE first_name = ifirst AND last_name = ilast;
END //
DELIMITER ;

-- given a criminal ID, print the criminal info
-- also print all crimes/alias/sentences related to that criminal
DELIMITER //
CREATE OR REPLACE PROCEDURE search_criminal_condition(icriminal_ID DECIMAL(6, 0))
BEGIN
    SELECT *
    FROM Criminals
    WHERE Criminal_ID = icriminal_ID;

```

```

SELECT *
FROM Crimes
WHERE criminal_ID = icrimianl_ID;

SELECT *
FROM Alias
WHERE criminal_ID = icriminal_ID;

SELECT *
FROM Sentences
WHERE criminal_ID = icriminal_ID;
END //
DELIMITER ;

-- given a crime ID, print the crime info
-- also print all criminals/officers/appeals/charges related to that crime
DELIMITER //
CREATE OR REPLACE PROCEDURE search_crime_condition(iCrime_ID DECIMAL(9, 0))
BEGIN
    SELECT *
    FROM Crimes
    WHERE Crime_ID = iCrime_ID;

    SELECT *
    FROM Criminals
    WHERE Criminal_ID IN (
        SELECT Criminal_ID
        FROM Crimes
        WHERE Crime_ID = iCrime_ID
    );
    SELECT *
    FROM Officers
    WHERE Officer_ID IN (
        SELECT Officer_ID
        FROM CrimeOfficers
        WHERE Crime_ID = iCrime_ID
    );
    SELECT *
    FROM Appeals
    WHERE Crime_ID = iCrime_ID;

    SELECT *
    FROM Crime_Charges
    WHERE Crime_ID = iCrime_ID;

```

```
END //
DELIMITER ;

-- FUNCTION:
-- find the next criminal ID to be inserted
DELIMITER //
CREATE OR REPLACE FUNCTION get_new_criminal_ID() RETURNS DECIMAL(6, 0) DETERMINISTIC
BEGIN
    DECLARE new_id DECIMAL(6, 0);
    SET new_id = (
        SELECT MAX(criminal_ID)
        FROM Criminals
    ) + 1;
    RETURN new_id;
END//
DELIMITER ;

-- find the next crime ID to be inserted
DELIMITER //
CREATE OR REPLACE FUNCTION get_new_crime_ID() RETURNS DECIMAL(9, 0) DETERMINISTIC
BEGIN
    DECLARE new_id DECIMAL(9, 0);
    SET new_id = (
        SELECT MAX(crime_ID)
        FROM Crimes
    ) + 1;
    RETURN new_id;
END//
DELIMITER ;

-- find the next prob ID to be inserted
DELIMITER //
CREATE OR REPLACE FUNCTION get_new_prob_ID() RETURNS DECIMAL(5, 0) DETERMINISTIC
BEGIN
    DECLARE new_id DECIMAL(5, 0);
    SET new_id = (
        SELECT MAX(prob_ID)
        FROM ProbOfficers
    ) + 1;
    RETURN new_id;
END//
DELIMITER ;
```

```
-- find the next officer ID to be inserted
DELIMITER //
CREATE OR REPLACE FUNCTION get_new_officer_ID() RETURNS DECIMAL(8, 0) DETERMINISTIC
BEGIN
    DECLARE new_id DECIMAL(8, 0);
    SET new_id = (
        SELECT MAX(Officer_ID)
        FROM Officers
    ) + 1;
    RETURN new_id;
END//
DELIMITER ;

-- find the next sentence ID to be inserted
DELIMITER //
CREATE OR REPLACE FUNCTION get_new_sentence_ID() RETURNS DECIMAL(6, 0) DETERMINISTIC
BEGIN
    DECLARE new_id DECIMAL(6, 0);
    SET new_id = (
        SELECT MAX(Sentence_ID)
        FROM Sentences
    ) + 1;
    RETURN new_id;
END//
DELIMITER ;

-- find the next appeal ID to be inserted
DELIMITER //
CREATE OR REPLACE FUNCTION get_new_appeal_ID() RETURNS DECIMAL(5, 0) DETERMINISTIC
BEGIN
    DECLARE new_id DECIMAL(5, 0);
    SET new_id = (
        SELECT MAX(Appeal_ID)
        FROM Appeals
    ) + 1;
    RETURN new_id;
END//
DELIMITER ;

-- find the next charge ID to be inserted
DELIMITER //
CREATE OR REPLACE FUNCTION get_new_charge_ID() RETURNS DECIMAL(10, 0) DETERMINISTIC
BEGIN
    DECLARE new_id DECIMAL(10, 0);
    SET new_id = (
```

```

        SELECT MAX(Charge_ID)
          FROM Crime_Charges
      ) + 1;
      RETURN new_id;
END//;
DELIMITER ;
-- change criminal v_status
DELIMITER //
CREATE OR REPLACE PROCEDURE change_criminal_v_status(iCriminal_ID DECIMAL(6, 0),
iStatus CHAR(1))
BEGIN
    IF (iStatus IN ('N', 'Y')) THEN
        UPDATE Criminals
        SET V_status = iStatus
        WHERE Criminal_ID = iCriminal_ID;
    END IF;
END//;
DELIMITER ;

-- change criminal p_status
DELIMITER //
CREATE OR REPLACE PROCEDURE change_criminal_p_status(iCriminal_ID DECIMAL(6, 0),
iStatus CHAR(1))
BEGIN
    IF (iStatus IN ('N', 'Y')) THEN
        UPDATE Criminals
        SET P_status = iStatus
        WHERE Criminal_ID = iCriminal_ID;
    END IF;
END//;
DELIMITER ;

-- change crime classification
DELIMITER //
CREATE OR REPLACE PROCEDURE change_crime_classification(iCrime_ID DECIMAL(9, 0),
iclassification CHAR(1))
BEGIN
    IF (iclassification IN ('F', 'M', 'O', 'U')) THEN
        UPDATE Crimes
        SET Classification = iclassification
        WHERE Crime_ID = iCrime_ID;
    END IF;
END//;
DELIMITER ;

-- change crime status

```

```

DELIMITER //
CREATE OR REPLACE PROCEDURE change_crime_status(iCrime_ID DECIMAL(9, 0), istatus
CHAR(2))
BEGIN
    IF (istatus IN ('CL', 'CA', 'IA')) THEN
        UPDATE Crimes
        SET crime_status = istatus
        WHERE Crime_ID = iCrime_ID;
    END IF;
END// 
DELIMITER ;

-- change sentence type
DELIMITER //
CREATE OR REPLACE PROCEDURE change_sentence_type(iSentence_ID DECIMAL(6, 0), iType
CHAR(1))
BEGIN
    IF (iType IN ('J', 'H', 'P')) THEN
        UPDATE Sentences
        SET Sentence_type = iType
        WHERE Sentence_ID = iSentence_ID;
    END IF;
END// 
DELIMITER ;

-- change prob_officer status
DELIMITER //
CREATE OR REPLACE PROCEDURE change_prob_officer_type(iProb_ID DECIMAL(5, 0), iStatus
CHAR(1))
BEGIN
    IF (iStatus IN ('A', 'I')) THEN
        UPDATE Prob_Officers
        SET Prob_status = iStatus
        WHERE Prob_ID = iProb_ID;
    END IF;
END// 
DELIMITER ;

-- change crime_charge status
DELIMITER //
CREATE OR REPLACE PROCEDURE change_crime_charge_status(iCharge_ID DECIMAL(10, 0),
iStatus CHAR(2))
BEGIN
    IF (iStatus IN ('PD', 'GL', 'NG')) THEN
        UPDATE Crime_Charges

```

```

        SET Charge_Status = iStatus
        WHERE Charge_ID = iCharge_ID;
    END IF;
END//  

DELIMITER ;

-- change officer status
DELIMITER //
CREATE OR REPLACE PROCEDURE change_officer_status(iOfficer_ID DECIMAL(8, 0), iStatus CHAR(1))
BEGIN
    IF (iStatus IN ('A', 'I')) THEN
        UPDATE Officers
        SET Officer_Status = iStatus
        WHERE Officer_ID = iOfficer_ID;
    END IF;
END//  

DELIMITER ;

-- change appeal status
DELIMITER //
CREATE OR REPLACE PROCEDURE change_appeal_status(iAppeal_ID DECIMAL(5, 0), iStatus CHAR(1))
BEGIN
    IF (iStatus IN ('P', 'A', 'D')) THEN
        UPDATE Appeals
        SET Appeal_Status = iStatus
        WHERE Appeal_ID = iAppeal_ID;
    END IF;
END//  

DELIMITER ;

```