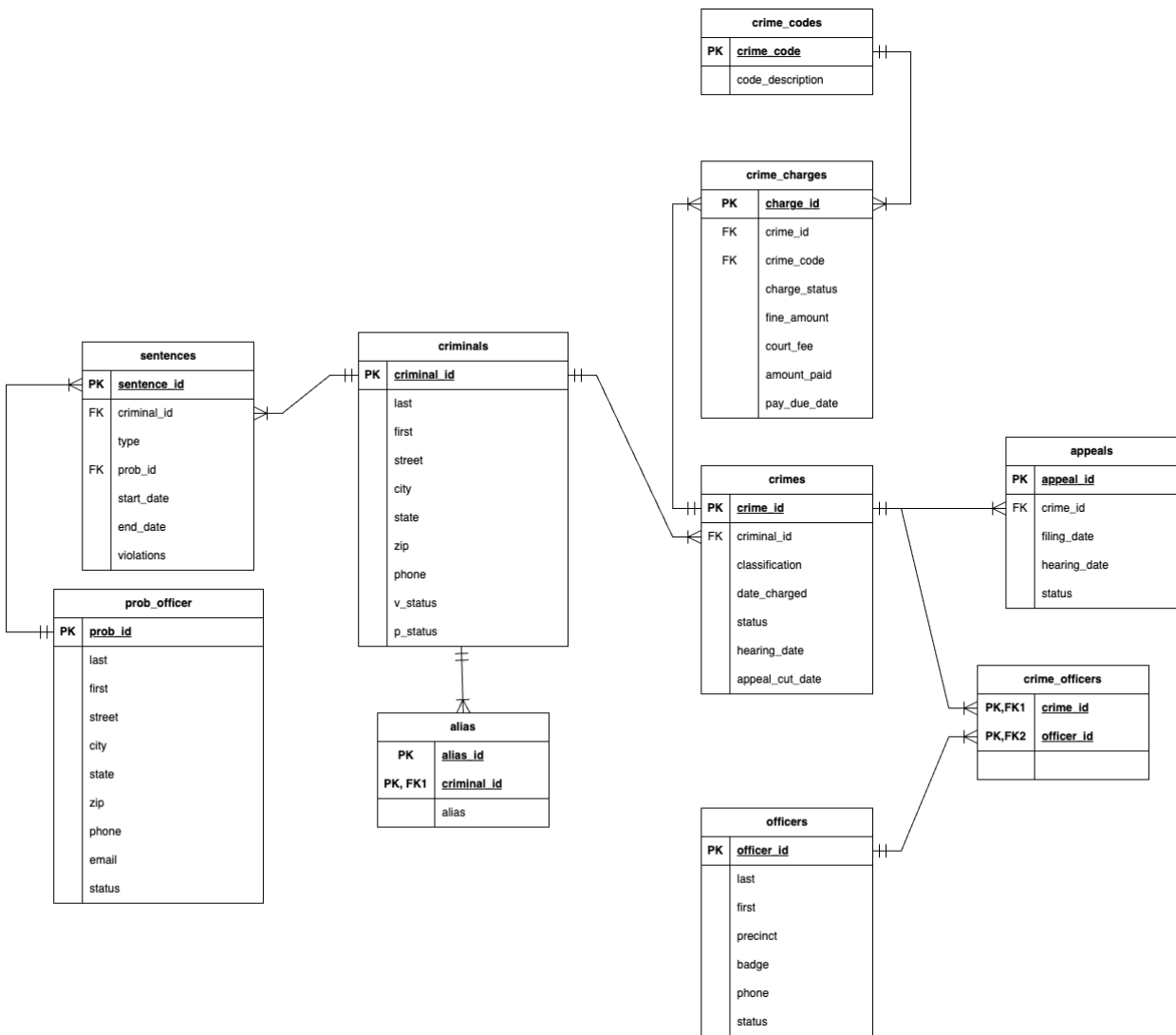


# Final ERD



## Final Schema Statements

criminals(criminal\_id, last, first, street, city, state, zip, phone, v\_status, p\_status)

prob\_officer(prob\_id, last, first, street, city, state, zip, phone, email, status)

sentences(sentence\_id, @criminal\_id, @prob\_id, type, start\_date, end\_date, violations)

alias(alias\_id, @criminal\_id, alias)

crimes(crime\_id, @criminal\_id, classification, date\_charged, status, hearing\_date, appeal\_cut\_date)

crime\_codes(crime\_code, code\_description)

crime\_charges(charge\_id, @crime\_id, @crime\_code, charge\_status, fine\_amount, court\_fee, amount\_paid, pay\_due\_date)

appeals(appeal\_id, @crime\_id, filing\_date, hearing\_date, status)

officers(officer\_id, last, first, precinct, badge, phone, status)

crime\_officers(@crime\_id, @officer\_id)

# Database Setup Details

We are hosting a MySQL database on Google Cloud Platform, and have configured our XAMPP and phpMyAdmin instances to connect to the remote database so we can work on it more easily.

We do this because we want to maintain a single source of truth in the cloud which we can access through out phpMyAdmin client.

## Table MetaData

Your SQL query has been executed successfully.

DESC alias;

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

Extra options

Field	Type	Null	Key	Default	Extra
alias_id	decimal(6,0)	YES		NULL	
criminal_id	decimal(6,0)	YES	MUL	NULL	
alias	varchar(20)	NO	PRI	N	

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	MUL	NULL	
filing_date	date	YES		NULL	
hearing_date	date	YES		NULL	
status	char(1)	YES		P	

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	NULL	
criminal_id	decimal(6,0)	YES	MUL	NULL	
classification	char(1)	YES		U	
date_charged	date	YES		NULL	
status	char(2)	NO		NULL	
hearing_date	date	YES		NULL	
appeal_cut_date	date	YES		NULL	

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	MUL	NULL	
crime_code	decimal(3,0)	YES	MUL	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	
payment_due_date	date	YES		NULL	

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	NULL	
code_description	varchar(30)	NO	UNI	NULL	

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(8,0)	NO	PRI	NULL	
officer_id	decimal(9,0)	NO	PRI	NULL	

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	varchar(15)	YES		NULL	
first	varchar(10)	YES		NULL	
street	varchar(30)	YES		NULL	
city	varchar(20)	YES		NULL	
state	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	

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	varchar(15)	YES		NULL	
first	varchar(10)	YES		NULL	
precinct	char(4)	NO		NULL	
badge	varchar(14)	YES	UNI	NULL	
phone	char(10)	YES		NULL	
status	char(1)	YES		A	

Your SQL query has been executed successfully.

**DESC** prob\_officer;

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

Extra options

Field	Type	Null	Key	Default	Extra
prob_id	decimal(5,0)	NO	PRI	NULL	
last	varchar(15)	YES		NULL	
first	varchar(10)	YES		NULL	
street	varchar(30)	YES		NULL	
city	varchar(20)	YES		NULL	
state	char(2)	YES		NULL	
zip	char(5)	YES		NULL	
phone	char(10)	YES		NULL	
email	varchar(30)	YES		NULL	
status	char(1)	NO		NULL	

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	MUL	NULL	
type	char(1)	YES		NULL	
prob_id	decimal(5,0)	YES	MUL	NULL	
start_date	date	YES		NULL	
end_date	date	YES		NULL	
violations	decimal(3,0)	NO		NULL	

Rows:

Table	Action	Rows	Type	Collation	Size	Overhead
<input type="checkbox"/> alias	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	32.0 KiB	–
<input type="checkbox"/> appeals	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	32.0 KiB	–
<input type="checkbox"/> crimes	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	32.0 KiB	–
<input type="checkbox"/> crime_charges	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	48.0 KiB	–
<input type="checkbox"/> crime_codes	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	32.0 KiB	–
<input type="checkbox"/> crime_officers	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	32.0 KiB	–
<input type="checkbox"/> criminals	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	16.0 KiB	–
<input type="checkbox"/> officers	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	32.0 KiB	–
<input type="checkbox"/> prob_officer	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	16.0 KiB	–
<input type="checkbox"/> sentences	★ Browse Structure Search Insert Empty Drop	10	InnoDB	utf8mb3_general_ci	48.0 KiB	–
10 tables	Sum	100	InnoDB	utf8mb3_general_ci	320.0 KiB	0 B

# Data samples

✓ Showing rows 0 - 9 (10 total, Query took 0.0349 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: None

Extra options

			alias_id	criminal_id	alias
<input type="checkbox"/>	Edit	Copy	Delete	8	7 David Wilson
<input type="checkbox"/>	Edit	Copy	Delete	3	2 Emily Johnson
<input type="checkbox"/>	Edit	Copy	Delete	2	1 Jay Smith
<input type="checkbox"/>	Edit	Copy	Delete	9	8 Jess Taylor
<input type="checkbox"/>	Edit	Copy	Delete	1	1 John Doe
<input type="checkbox"/>	Edit	Copy	Delete	7	6 Lisa Miller
<input type="checkbox"/>	Edit	Copy	Delete	10	10 Megan Brown
<input type="checkbox"/>	Edit	Copy	Delete	4	3 Mike Williams
<input type="checkbox"/>	Edit	Copy	Delete	6	5 Rob Davis
<input type="checkbox"/>	Edit	Copy	Delete	5	4 Sara Jones

Showing rows 0 - 9 (10 total, Query took 0.0344 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	status
<input type="checkbox"/>	Edit Copy Delete	1	1	2022-04-05	2022-04-25	P
<input type="checkbox"/>	Edit Copy Delete	2	2	2022-05-10	2022-05-30	P
<input type="checkbox"/>	Edit Copy Delete	3	3	2022-06-15	2022-07-05	A
<input type="checkbox"/>	Edit Copy Delete	4	4	2022-07-20	2022-08-10	A
<input type="checkbox"/>	Edit Copy Delete	5	5	2022-08-25	2022-09-15	A
<input type="checkbox"/>	Edit Copy Delete	6	6	2022-09-30	2022-10-20	P
<input type="checkbox"/>	Edit Copy Delete	7	7	2022-10-05	2022-10-25	D
<input type="checkbox"/>	Edit Copy Delete	8	8	2022-11-10	2022-11-30	D
<input type="checkbox"/>	Edit Copy Delete	9	9	2022-12-15	2023-01-04	D
<input type="checkbox"/>	Edit Copy Delete	10	10	2023-01-20	2023-02-09	P

Check all | With selected: Edit Copy Delete Export

Showing rows 0 - 9 (10 total, Query took 0.0330 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	status	hearing_date	appeal_cut_date
<input type="checkbox"/>	Edit Copy Delete	1	1	F	2022-01-15	CL	2022-03-20	2022-03-10
<input type="checkbox"/>	Edit Copy Delete	2	2	O	2022-02-10	CA	2022-04-15	2022-04-05
<input type="checkbox"/>	Edit Copy Delete	3	3	F	2022-03-20	IA	2022-05-25	2022-05-15
<input type="checkbox"/>	Edit Copy Delete	4	4	F	2022-04-05	CL	2022-06-10	2022-06-05
<input type="checkbox"/>	Edit Copy Delete	5	5	U	2022-05-12	CL	2022-07-15	2022-07-05
<input type="checkbox"/>	Edit Copy Delete	6	6	U	2022-06-25	CL	2022-08-20	2022-08-10
<input type="checkbox"/>	Edit Copy Delete	7	7	M	2022-07-10	IA	2022-09-15	2022-09-05
<input type="checkbox"/>	Edit Copy Delete	8	8	O	2022-08-15	CL	2022-10-20	2022-10-10
<input type="checkbox"/>	Edit Copy Delete	9	9	U	2022-09-10	IA	2022-11-15	2022-11-05
<input type="checkbox"/>	Edit Copy Delete	10	10	M	2022-10-25	CL	2022-12-30	2022-12-20

Check all | With selected: Edit Copy Delete Export

Showing rows 0 - 9 (10 total, Query took 0.0344 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	payment_due_date
<input type="checkbox"/>	Edit Copy Delete	1	1	101	PD		500.00	50.00	550.00 2022-04-01
<input type="checkbox"/>	Edit Copy Delete	2	2	102	PD		300.00	30.00	330.00 2022-05-01
<input type="checkbox"/>	Edit Copy Delete	3	3	103	GL	1000.00		100.00	1100.00 2022-06-01
<input type="checkbox"/>	Edit Copy Delete	4	4	104	GL	200.00		20.00	220.00 2022-07-01
<input type="checkbox"/>	Edit Copy Delete	5	5	105	NG	700.00		70.00	770.00 2022-08-01
<input type="checkbox"/>	Edit Copy Delete	6	6	106	NG	250.00		25.00	275.00 2022-09-01
<input type="checkbox"/>	Edit Copy Delete	7	7	107	GL	800.00		80.00	880.00 2022-10-01
<input type="checkbox"/>	Edit Copy Delete	8	8	108	NG	400.00		40.00	440.00 2022-11-01
<input type="checkbox"/>	Edit Copy Delete	9	9	109	GL	1500.00		150.00	1650.00 2022-12-01
<input type="checkbox"/>	Edit Copy Delete	10	10	110	PD	600.00		60.00	660.00 2023-01-01



✓ Showing rows 0 - 9 (10 total, Query took 0.0385 seconds.)

`SELECT * FROM crime_codes;`

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

☐ Show all | Number of rows: 25 ▾ Filter rows:  Sort by key: None ▾

Extra options

		crime_code	code_description
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		102	Assault
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		103	Burglary
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		104	Drug Possession
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		108	DUI
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		107	Fraud
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		109	Homicide
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		110	Kidnapping
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		105	Robbery
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		101	Theft
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		106	Vandalism

✓ Showing rows 0 - 9 (10 total, Query took 0.0329 seconds.)

`SELECT * FROM crime_officers;`

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

☐ Show all | Number of rows: 25 ▾ Filter rows:  Sort by key: None ▾

Extra options

		crime_id	officer_id
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		1	1
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		2	2
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		3	3
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		4	4
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		5	5
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		6	6
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		7	7
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		8	8
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		9	9
<input type="checkbox"/>	<a href="#">Edit</a>	<a href="#">Copy</a>	<a href="#">Delete</a>
		10	10

Showing rows 0 - 9 (10 total, Query took 0.0337 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	first	street	city	state	zip	phone	v_status	p_status
<input type="checkbox"/> Edit Copy Delete	1	Smith	John	123 Main St	Anytown	CA	12345	5555555555	N	N
<input type="checkbox"/> Edit Copy Delete	2	Johnson	Emily	456 Elm St	Smallville	NY	54321	4444444444	Y	N
<input type="checkbox"/> Edit Copy Delete	3	Williams	Michael	789 Oak St	Another City	TX	67890	3333333333	N	Y
<input type="checkbox"/> Edit Copy Delete	4	Jones	Sarah	101 Pine St	Bigtown	FL	11111	2222222222	Y	Y
<input type="checkbox"/> Edit Copy Delete	5	Davis	Robert	202 Maple St	Villagetown	WA	22222	7777777777	N	N
<input type="checkbox"/> Edit Copy Delete	6	Miller	Lisa	303 Birch St	Hometown	OR	33333	8888888888	N	N
<input type="checkbox"/> Edit Copy Delete	7	Wilson	David	404 Cedar St	Townsville	AZ	44444	6666666666	Y	N
<input type="checkbox"/> Edit Copy Delete	8	Taylor	Jessica	505 Fir St	Suburbia	NV	55555	9999999999	N	Y
<input type="checkbox"/> Edit Copy Delete	9	Anderson	Richard	606 Redwood St	Metropolis	CO	66666	1111111111	Y	Y
<input type="checkbox"/> Edit Copy Delete	10	Brown	Megan	707 Spruce St	Downtown	UT	77777	1234567890	N	N

Showing rows 0 - 9 (10 total, Query took 0.0337 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	first	precinct	badge	phone	status
<input type="checkbox"/> Edit Copy Delete	1	Smith	John	P001	B0001	5555555555	A
<input type="checkbox"/> Edit Copy Delete	2	Johnson	Emily	P002	B0002	4444444444	A
<input type="checkbox"/> Edit Copy Delete	3	Williams	Michael	P003	B0003	3333333333	A
<input type="checkbox"/> Edit Copy Delete	4	Jones	Sarah	P004	B0004	2222222222	I
<input type="checkbox"/> Edit Copy Delete	5	Davis	Robert	P005	B0005	7777777777	A
<input type="checkbox"/> Edit Copy Delete	6	Miller	Lisa	P006	B0006	8888888888	A
<input type="checkbox"/> Edit Copy Delete	7	Wilson	David	P007	B0007	6666666666	A
<input type="checkbox"/> Edit Copy Delete	8	Taylor	Jessica	P008	B0008	9999999999	I
<input type="checkbox"/> Edit Copy Delete	9	Anderson	Richard	P009	B0009	1111111111	A
<input type="checkbox"/> Edit Copy Delete	10	Brown	Megan	P010	B0010	1234567890	A

Showing rows 0 - 9 (10 total, Query took 0.0324 seconds.)

SELECT \* FROM prob\_officer;

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	first	street	city	state	zip	phone	email	status
<input type="checkbox"/> Edit Copy Delete	1	Smith	Alice	123 Oak St	Cityville	CA	12345	5555555555	alice.smith@email.com	A
<input type="checkbox"/> Edit Copy Delete	2	Johnson	Robert	456 Maple St	Townburg	NY	54321	4444444444	robert.johnson@email.com	A
<input type="checkbox"/> Edit Copy Delete	3	Williams	Jennifer	789 Elm St	Villagetown	TX	67890	3333333333	jennifer.williams@email.com	A
<input type="checkbox"/> Edit Copy Delete	4	Jones	David	101 Pine St	Smalltown	FL	11111	2222222222	david.jones@email.com	I
<input type="checkbox"/> Edit Copy Delete	5	Davis	Linda	202 Birch St	Metropolis	WA	22222	7777777777	linda.davis@email.com	A
<input type="checkbox"/> Edit Copy Delete	6	Miller	Michael	303 Cedar St	Cityville	OR	33333	8888888888	michael.miller@email.com	I
<input type="checkbox"/> Edit Copy Delete	7	Wilson	Susan	404 Redwood St	Suburbia	AZ	44444	6666666666	susan.wilson@email.com	A
<input type="checkbox"/> Edit Copy Delete	8	Taylor	Daniel	505 Spruce St	Townsville	NV	55555	9999999999	daniel.taylor@email.com	I
<input type="checkbox"/> Edit Copy Delete	9	Anderson	Karen	606 Fir St	Smallville	CO	66666	1111111111	karen.anderson@email.com	A
<input type="checkbox"/> Edit Copy Delete	10	Brown	William	707 Pine St	Downtown	UT	77777	1234567890	william.brown@email.com	I

# Sample SQL Commands

Here all the command categories we used

- SELECT
- CREATE
- DESC
- DROP
- INSERT

These are the advanced PL/SQL categories covered by our work.

- PROCEDURE
- CHECK CONSTRAINTS

CREATE and INSERT statements are in COMMANDS.sql, so they are omitted here. The stored procedure creation for one of our sample procedures is also store in the COMMANDS.sql file.

At the bottom of the automatically generated COMMANDS.sql file that we obtained by exporting the database through XAMPP, we have also included our SELECT statements, as recommended by Professor Arfaoui during the Nov. 7 lecture. When importing this file through XAMPP, you *may* encounter an error that states that "This type of clause was previously parsed (near select)". This is a known error with the phpMyAdmin import parser, as noted in the below stackoverflow thread. We have verified that all of our SELECT statements indeed work, and this error is outside of our control.

<https://stackoverflow.com/questions/36484077/mysql-parsing-error-in-phpmyadmin-this-type-of-clause-was-previously-parsed>