Creating Apps Using WordPress Plugins and MySQL

This presentation is an overview of creating simple database applications in WordPress.

No programming is needed, but you should be familiar with the following concepts.

- Database: a container for tables
- Tables: data organized in rows and columns
- Plugins: configurable software tools that generate input forms, tables, and reports

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Database Tables

- Most WordPress data is stored in MySQL tables, e.g. users, links, terms, posts, options.
- Plugin configurations are stored in tables in the same database, e.g. participants_database_fields, exportsreports_reports.
- You can add your own custom tables to store data there too.

WordPress plugins used in these examples

Participants Database (PDB): A membership database app

Pods: Create a simple app with a form and a table

WP phpMyAdmin: Database administration tools

Exports and Reports: Custom reports using SQL queries

Plugin: Participants Database (PDB)

1. Add the form fields (creates a MySQL table)
2. Add the shortcode to a WordPress page (creates the form)
3. Users enter data into the form
4. List the collected input using Exports and Reports

Participants Database (PDB) Input Form

* = required

First Name*

Last Name*

Email*

Phone #1*

Phone #2

Preferred method of contact?

Mailing Address
(street or PO Box)*

Postal City*

State*

Zip Code*

How did you hear about CASP?

Days/times available to volunteer*

Text boxes

CASP Communities

☐ Rockingham ☐ Westminster ☐ Brattleboro ☐ Marlboro ☐ Putney ☐ other:

Check the CASP communities (if any) you'd like to be a part of.

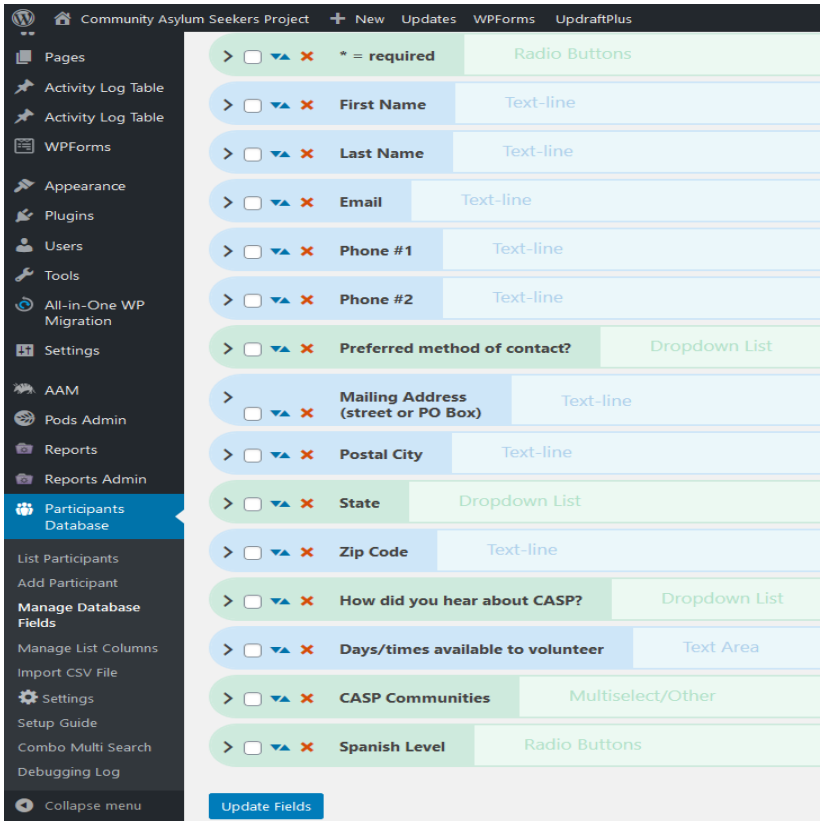
Check boxes

Spanish Level

○ None ○ Beginning ○ Intermediate ○ Advanced ○ Fluent/Near Fluent

Radio buttons

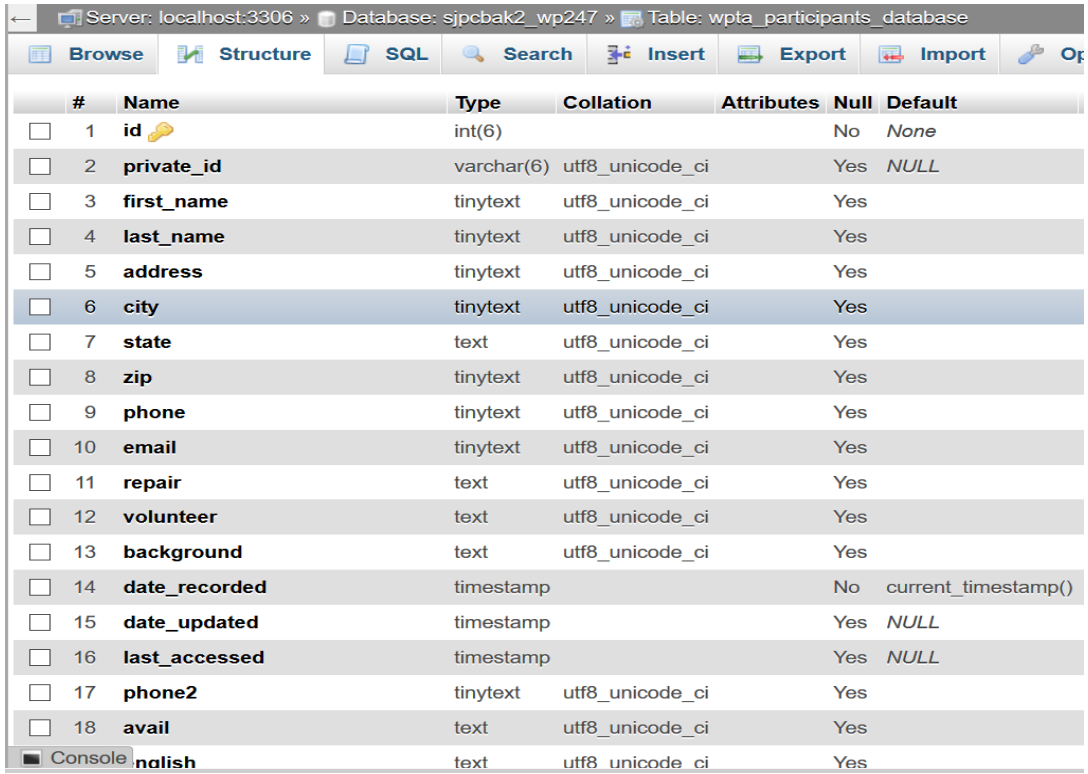
1a. Create the input form fields in PDB



Text boxes

Check boxes
Radio buttons

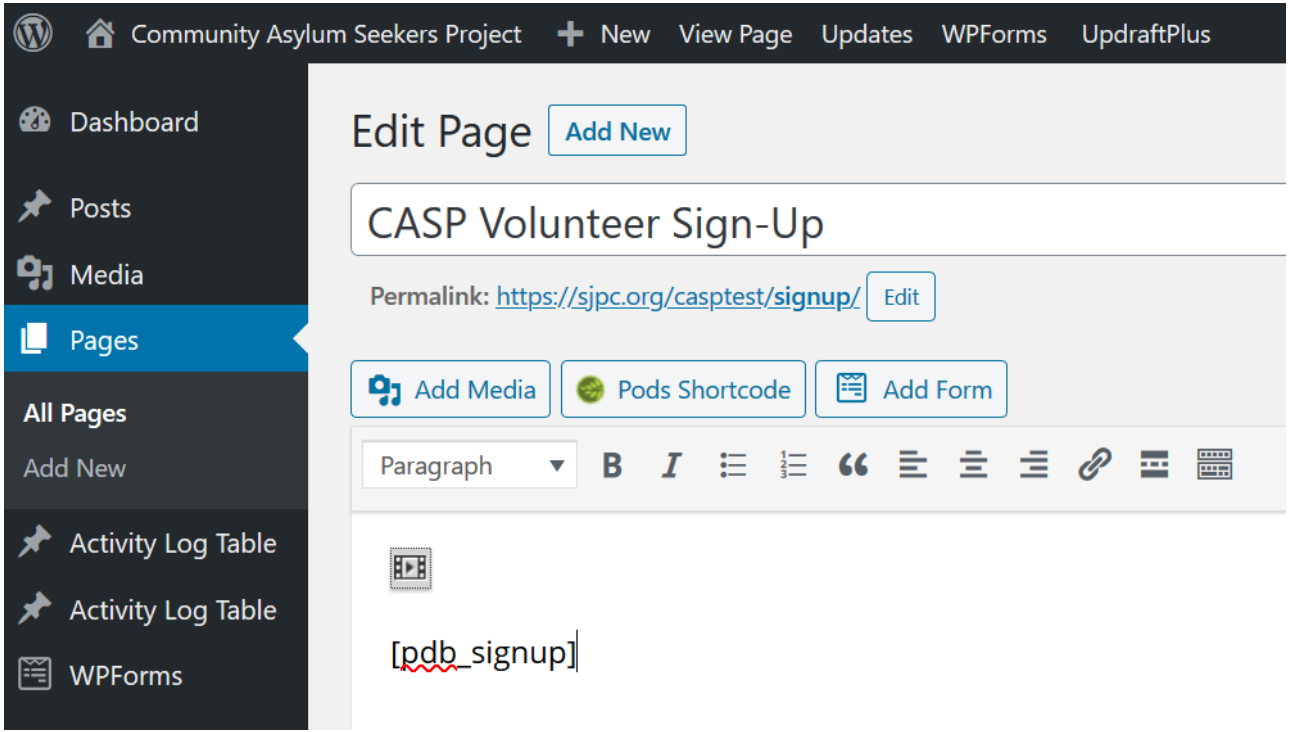
1b. PDB generates the MySQL table



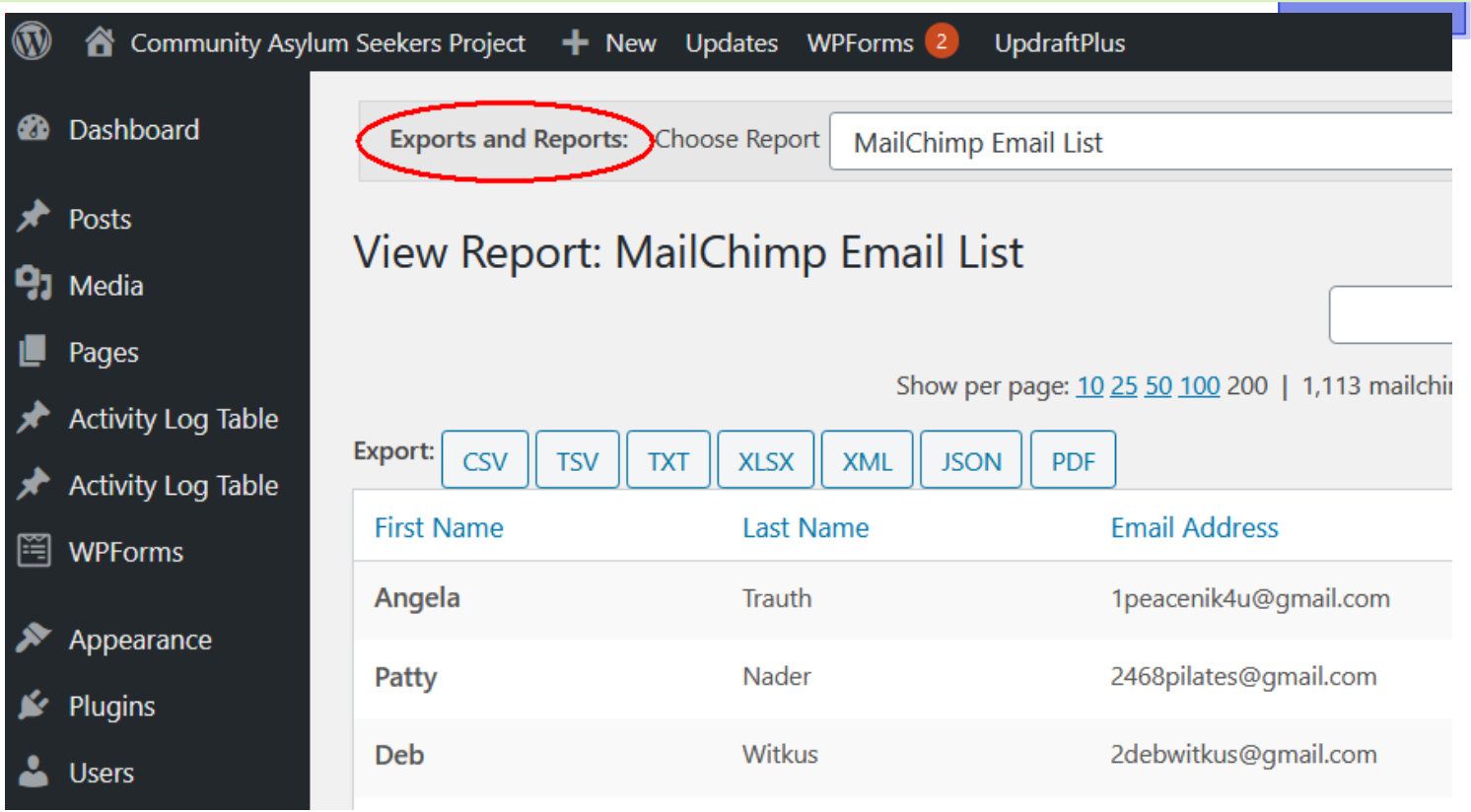
#	Name	Type	Collation	Attributes	Null	Default
1	id	int(6)			No	*None*
2	private_id	varchar(6)	utf8_unicode_ci		Yes	*NULL*
3	first_name	tinytext	utf8_unicode_ci		Yes	
4	last_name	tinytext	utf8_unicode_ci		Yes	
5	address	tinytext	utf8_unicode_ci		Yes	
6	city	tinytext	utf8_unicode_ci		Yes	
7	state	text	utf8_unicode_ci		Yes	
8	zip	tinytext	utf8_unicode_ci		Yes	
9	phone	tinytext	utf8_unicode_ci		Yes	
10	email	tinytext	utf8_unicode_ci		Yes	
11	repair	text	utf8_unicode_ci		Yes	
12	volunteer	text	utf8_unicode_ci		Yes	
13	background	text	utf8_unicode_ci		Yes	
14	date_recorded	timestamp			No	current_timestamp()
15	date_updated	timestamp			Yes	*NULL*
16	last_accessed	timestamp			Yes	*NULL*
17	phone2	tinytext	utf8_unicode_ci		Yes	
18	avail	text	utf8_unicode_ci		Yes	
	nglish	text	utf8_unicode_ci		Yes	

Viewed via WP phpMyAdmin

2. Add the PDB shortcode to a WordPress page



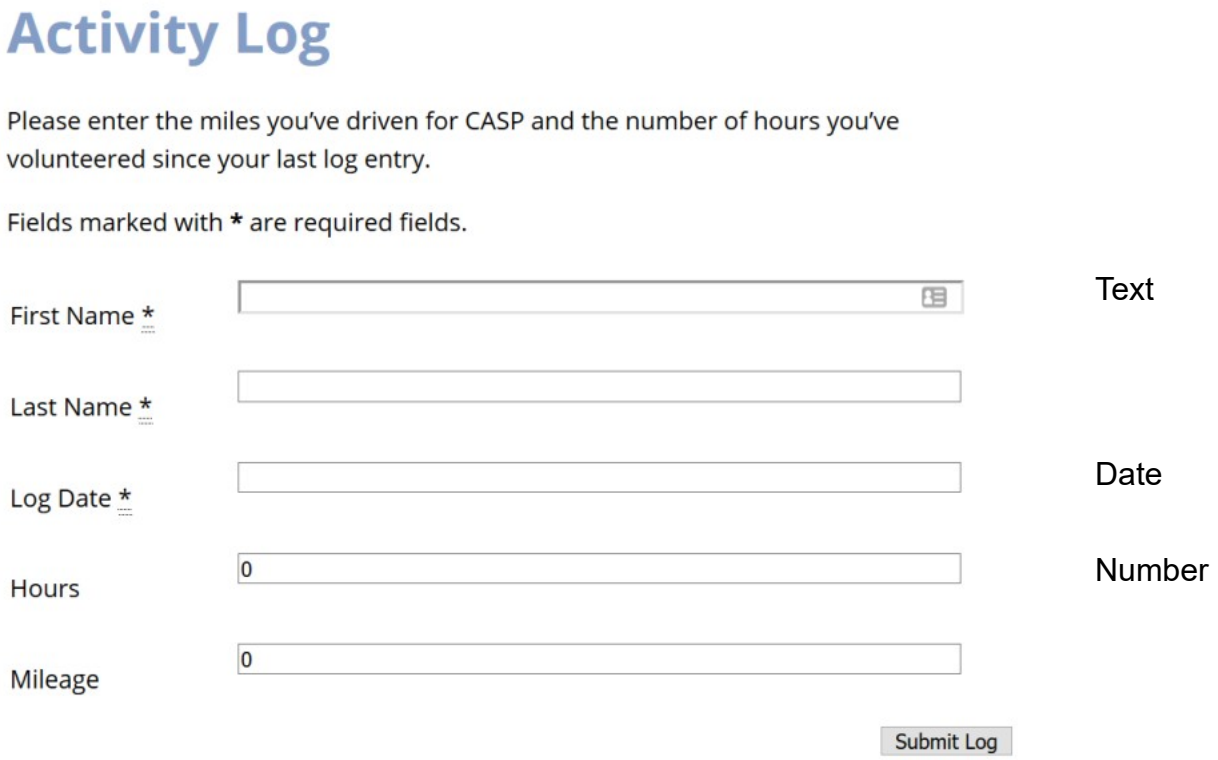
4. Report of names and email addresses



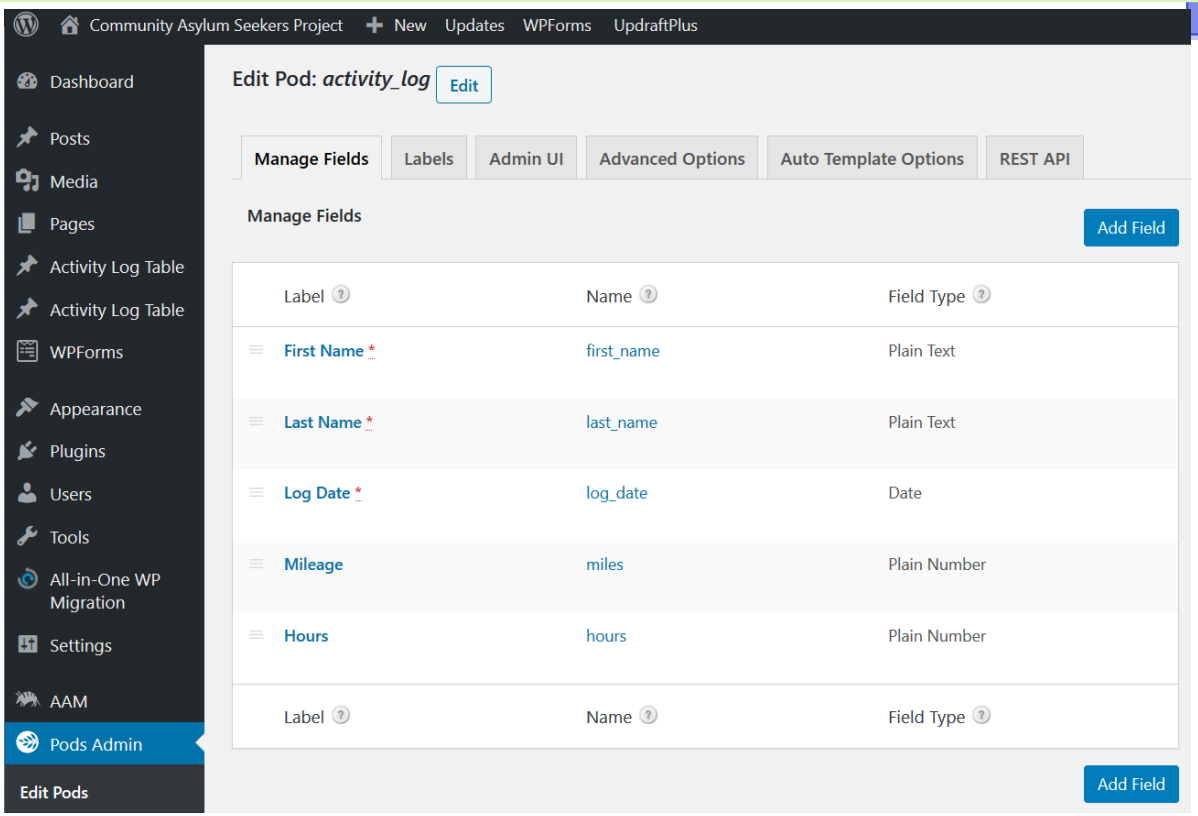
Plugin Pods can create an app with a form and a table

1. Add the form fields (creates a MySQL table)
2. Add the shortcode to a WordPress page (creates the form)
3. Users enter data into the form
4. List the collected input using Exports and Reports

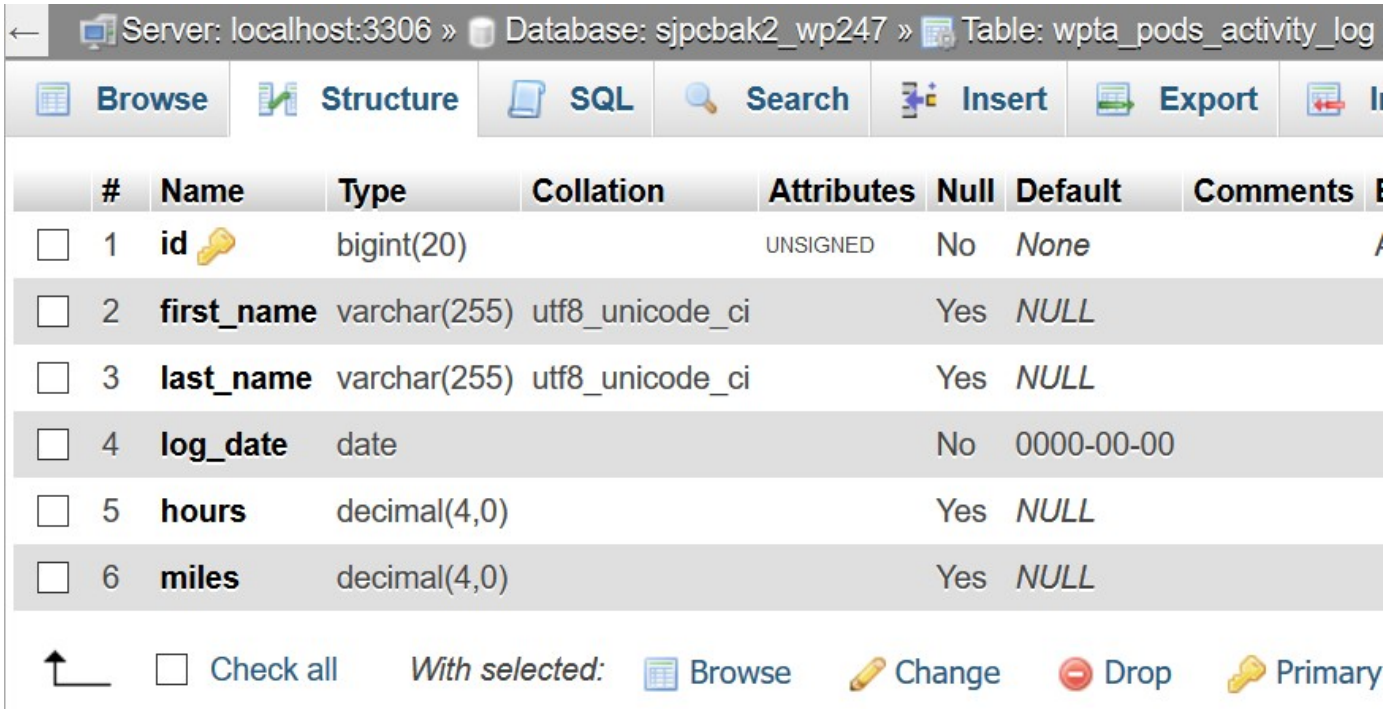
Enter the application data into an input form



1a. Create the input form fields in Pods



1b. Pods generates the MySQL **table**



#	Name	Type	Collation	Attributes	Null	Default	Comments
1	id	bigint(20)		UNSIGNED	No	*None*	
2	first_name	varchar(255)	utf8_unicode_ci		Yes	*NULL*	
3	last_name	varchar(255)	utf8_unicode_ci		Yes	*NULL*	
4	log_date	date			No	0000-00-00	
5	hours	decimal(4,0)			Yes	*NULL*	
6	miles	decimal(4,0)			Yes	*NULL*	

Check all *With selected:* Browse Change Drop Primary

Viewed via WP phpMyAdmin

2. Add the Pods shortcode to a WordPress page

```
Please enter the miles you've driven for CASP and the number of
hours you've volunteered since your last log entry.

Fields marked with * are required fields.

[pods-form name="Activity Log" slug="activitylog"
fields="first_name,last_name,log_date,hours,miles" label="Submit
Log"]
```

3. Users entered this data into the form

```
SELECT * FROM `wpta_pods_activity_log` WHERE 1
```

Profiling [Edit inli

Show all | Number of rows: 25 Filter rows: Search this table Sort by key

+ Options

	id	first_name	last_name	log_date	hours	miles
Edit Copy Delete	699	Steve	Crofter	2019-03-03	120	0
Edit Copy Delete	700	Ursula	Nadolny	2019-03-06	4	48
Edit Copy Delete	738	Ursula	Nadolny	2019-03-24	15	64
Edit Copy Delete	1570	Shana	Frank	2019-09-28	2	75

Viewed via WP phpMyAdmin

4a. Exports and Reports output

View Report: Test activity log query

Show per page: 10 25 50 100 200 | 4 test activity log query

Export: CSV TSV TXT XLSX XML JSON PDF

Log Date	First Name	Last Name	Hours	Mileage
2019/03/03	**Steve**	Crofter	120	0
2019/03/06	**Ursula**	Nadolny	4	48
2019/03/24	**Ursula**	Nadolny	15	64
2019/09/28	**Shana**	Frank	2	75

4b. Exports and Reports MySQL query

SQL Query

```
SELECT log_date, first_name, last_name, hours, miles
FROM wpta_pods_activity_log
ORDER BY log_date, first_name, last_name
```

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Questions?

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