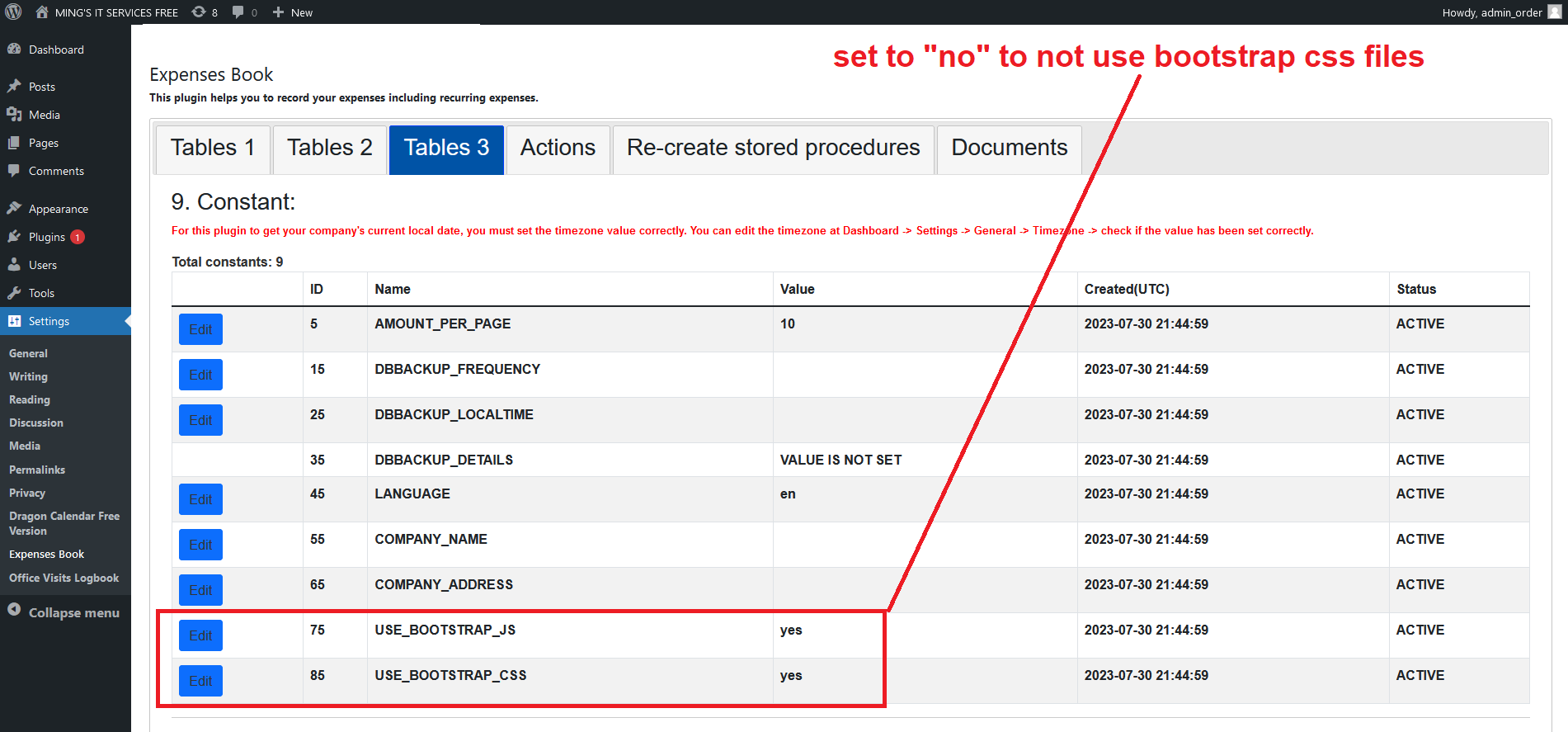
**Expenses Book Plugin for WordPress**

Version 1.0 – last updated 2020-05-07

You want to record your expenses history in a 100% private and 100% safe place? You do not want to use the cloud because it’s not 100% private and 100% safe. We provide you a plugin to give you 100% privacy and 100% safety for your expenses records. You can install this plugin on your website in a company intranet or as your own computer’s localhost. Data is saved in the same MySQL database for your WordPress website.

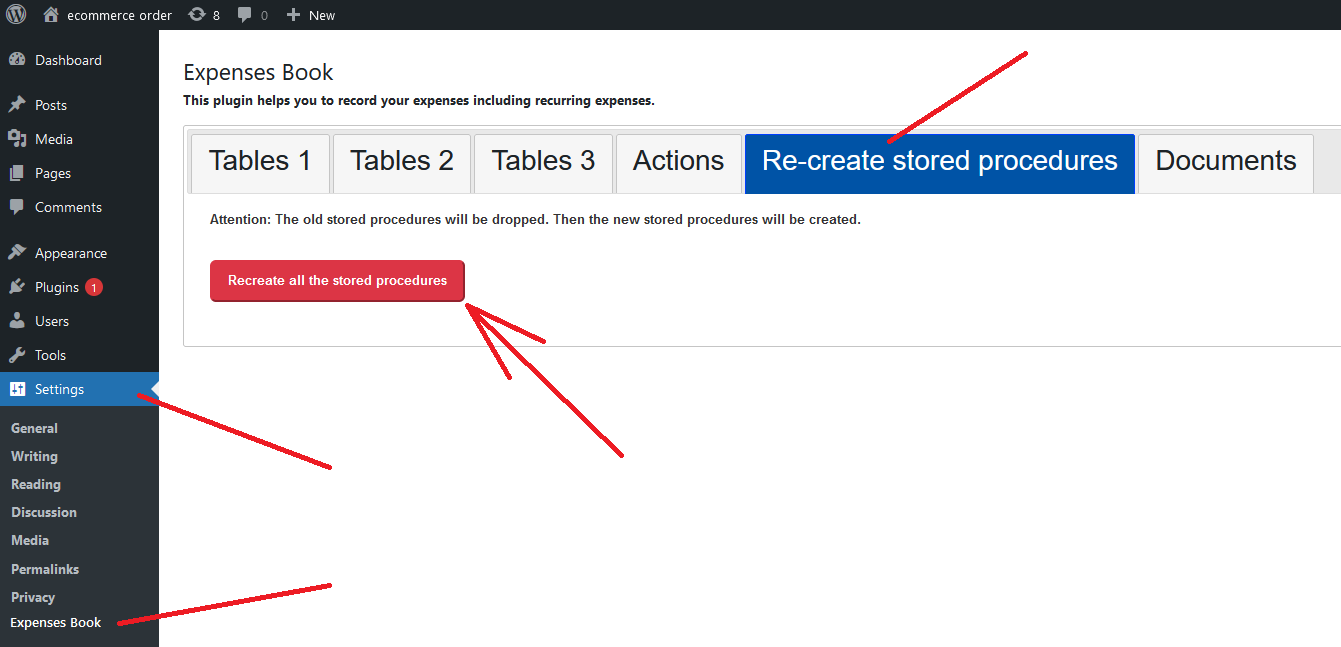
This expenses book plugin is for you to record your expenses **including recurring expenses** for future purposes such as tax reporting. It can be related to many different expense types such as Salaries and Wages, Company Management, Meals and Entertainment, and etc. It can be related to a tax rate, a customer, and a recurring expense. It’s comparable to zoho invoice, which is in an internet public website.

**By default, this plugin uses Bootstrap (https://getbootstrap.com/) for the formatting. But sometimes you already have your own formatting css files. So you may need to remove these Bootstrap css and javascript files when you use this plugin. If this is the case, you can choose not to use Bootstrap’s css and javascript files by changing the values of USE\_BOOTSTRAP\_JS and USE\_BOOTSTRAP\_CSS to no (0) in the constant table.**

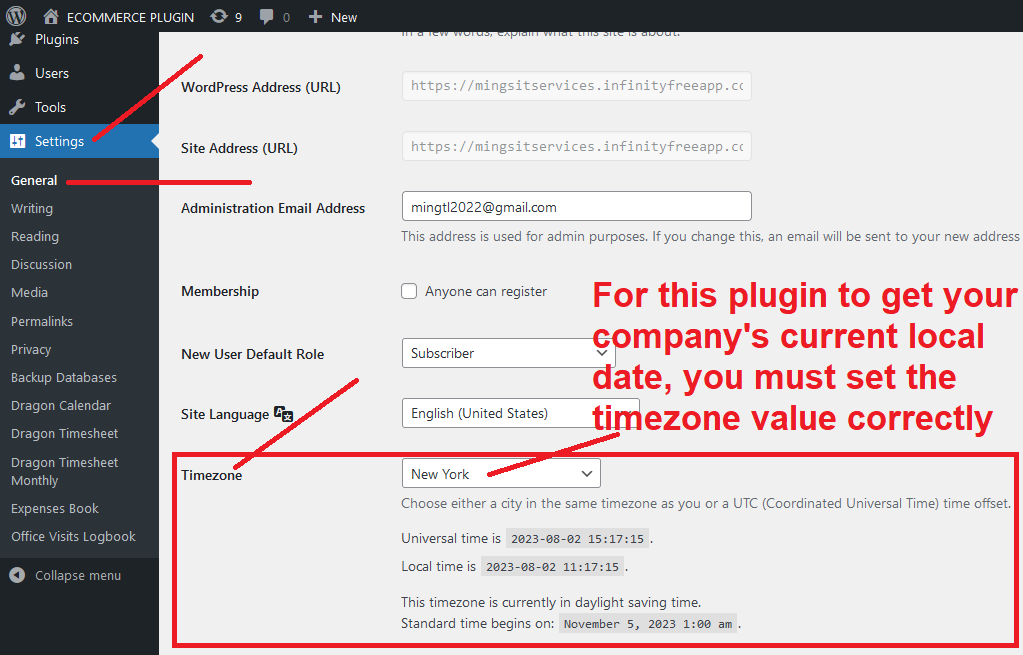
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**If you did not find USE\_BOOTSTRAP\_JS and USE\_BOOTSTRAP\_CSS in your constant table, please deactivate this plugin and activate it again. Then USE\_BOOTSTRAP\_JS and USE\_BOOTSTRAP\_CSS will be automatically added to your constant table.**

If you find out that the search result is not showing all the fields' data, you can try to re-create stored procedures in the admin plugin page. Go to admin page, click "Settings", and then click "Expenses Book". Then click tab "Re-create stored procedures", and press the button to re-create all the stored procedures again.



**For this plugin to get your company's current local date, you must set the timezone value correctly. You can edit the timezone at Dashboard -> Settings -> General -> Timezone -> check if the value has been set correctly.**

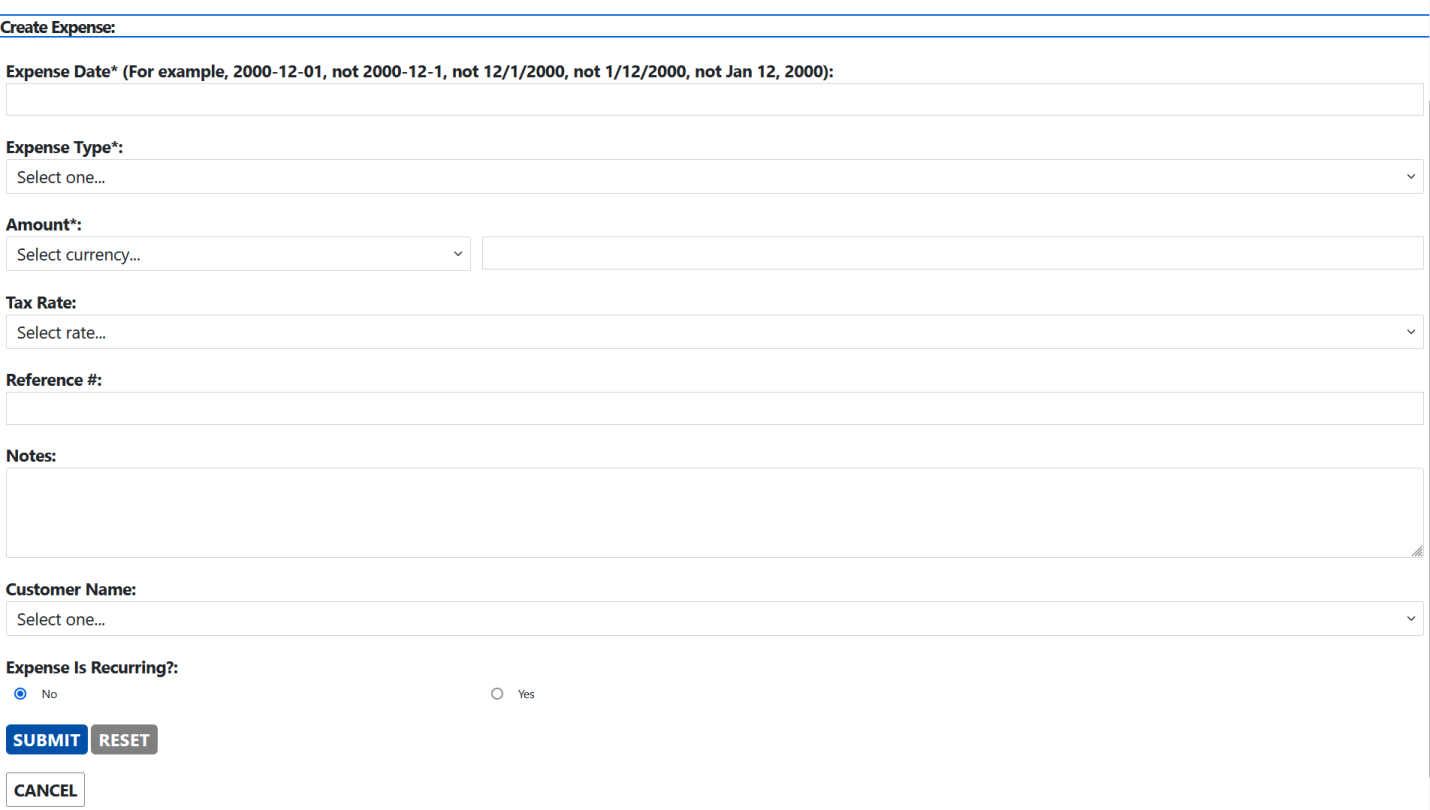


This plugin has the **web accessibility** feature for the disabled people to listen to the screen reader. The disabled people just need to press the tab key to access the elements on the page. Then use keyboard to input. Then press the enter key for submit, reset and cancel. To use this feature, you can download and use any screen reader software such as NVDA (for Windows), VoiceOver (for Apple), etc. Most of this kind of software is free to download and use.

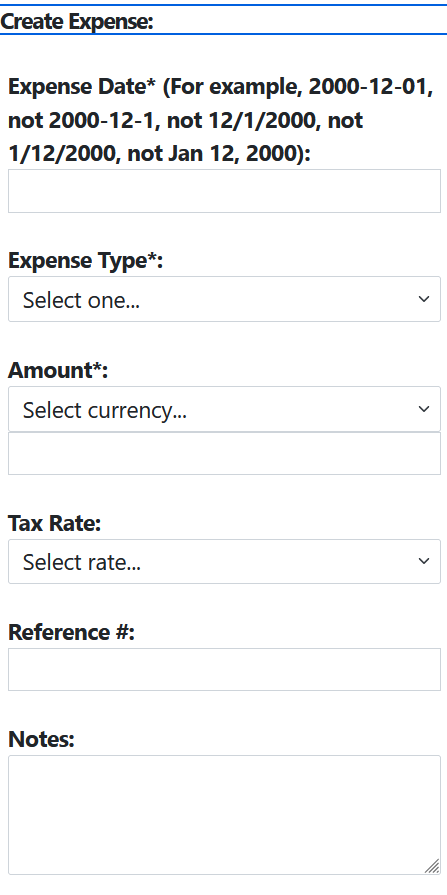
This plugin has an access restriction feature. You can give a user access to the landing page by adding the user to the wp\_expenseszyx987\_users table. You must log in WordPress website to access this plugin’s landing page.

This plugin uses a responsive design. You can use it from your cellphone, tablet, laptop, and PC. The layout will change accordingly.

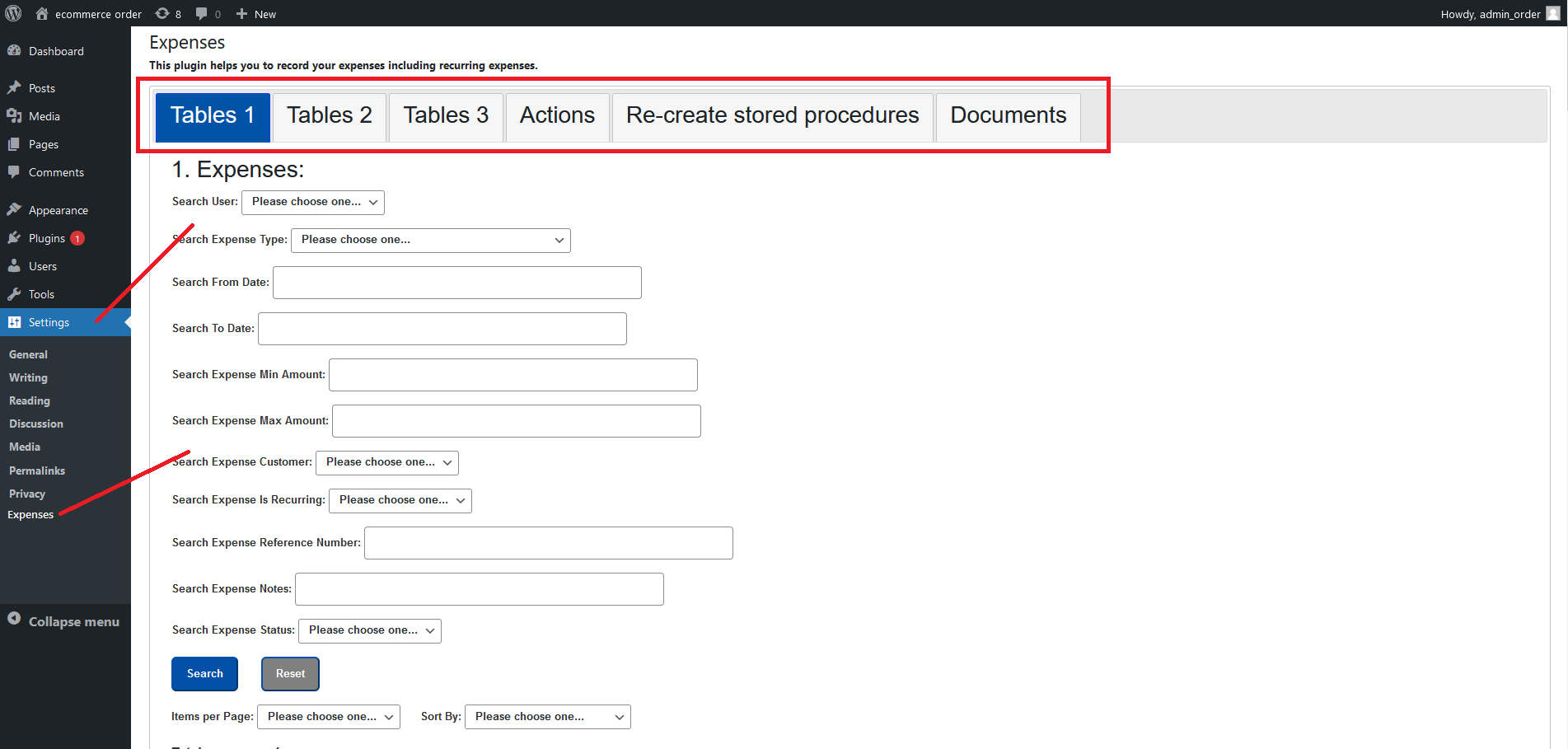
For example, here is an example of a tablet browser:



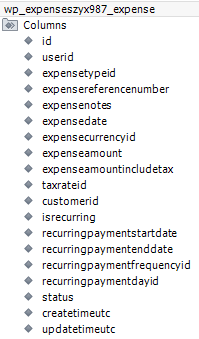
Here is an example of a cellphone browser:



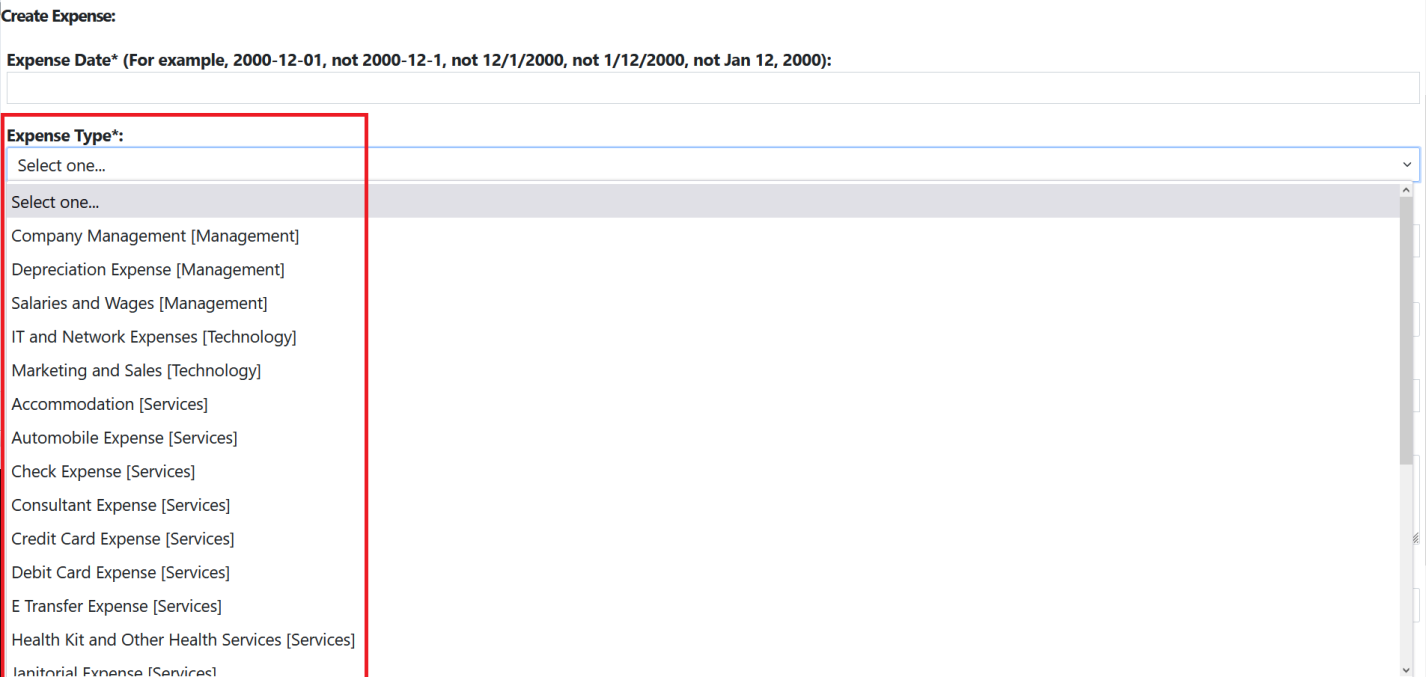
Here is the admin page:



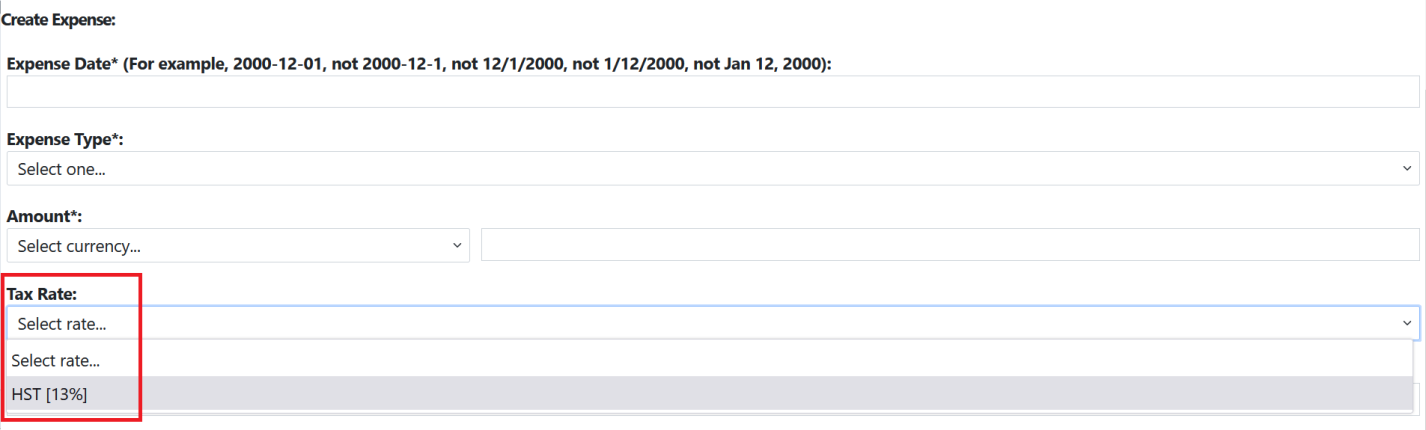
1. You can use this plugin to create/edit/delete expenses. It can be related to many different expense types such as Salaries and Wages, Company Management, Meals and Entertainment, and etc. It can be related to a tax rate, a customer, and a recurring expense. You can add any new type categories and expense types if you want. You can do that in the admin page. Here are the wp\_expenseszyx987\_expense table’s columns:

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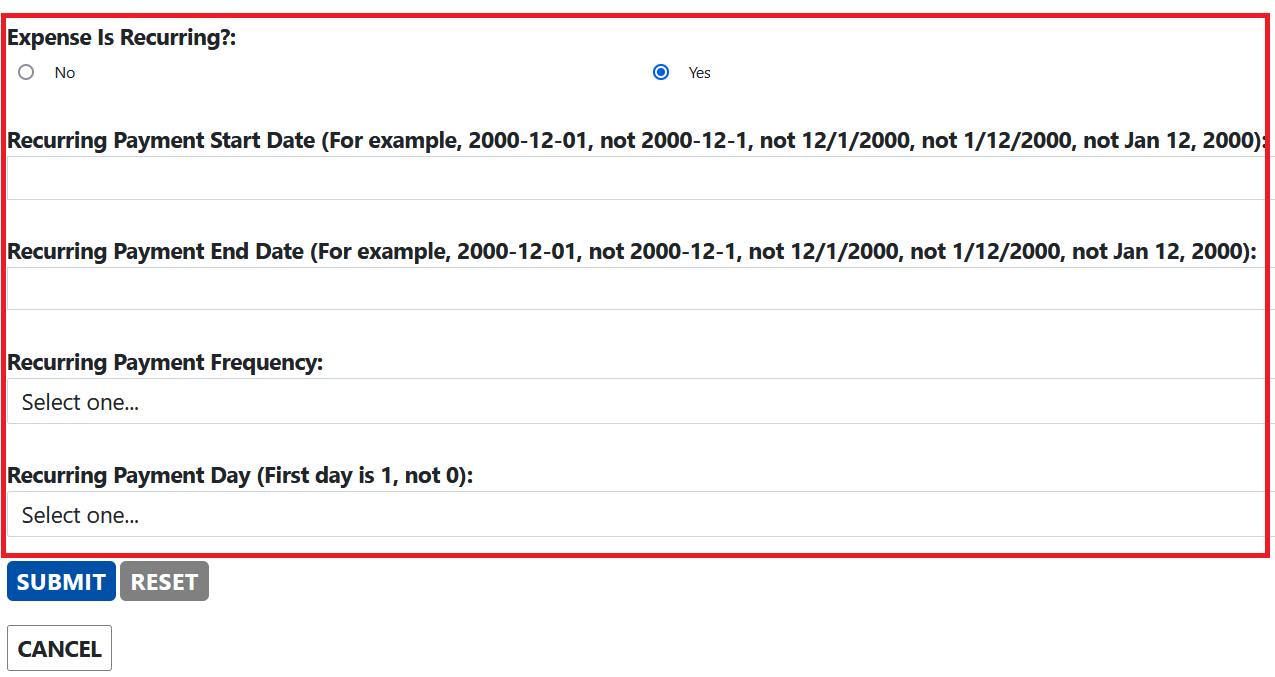
2. When creating/editing expenses, you can choose different kinds of expense types from the drop down list. For example, types can be “Company Management”, “Salaries and Wages”, “Meals and Entertainment”, etc. See the image below:



3. When creating/editing expenses, you can choose different kinds of tax rates from the drop down list.

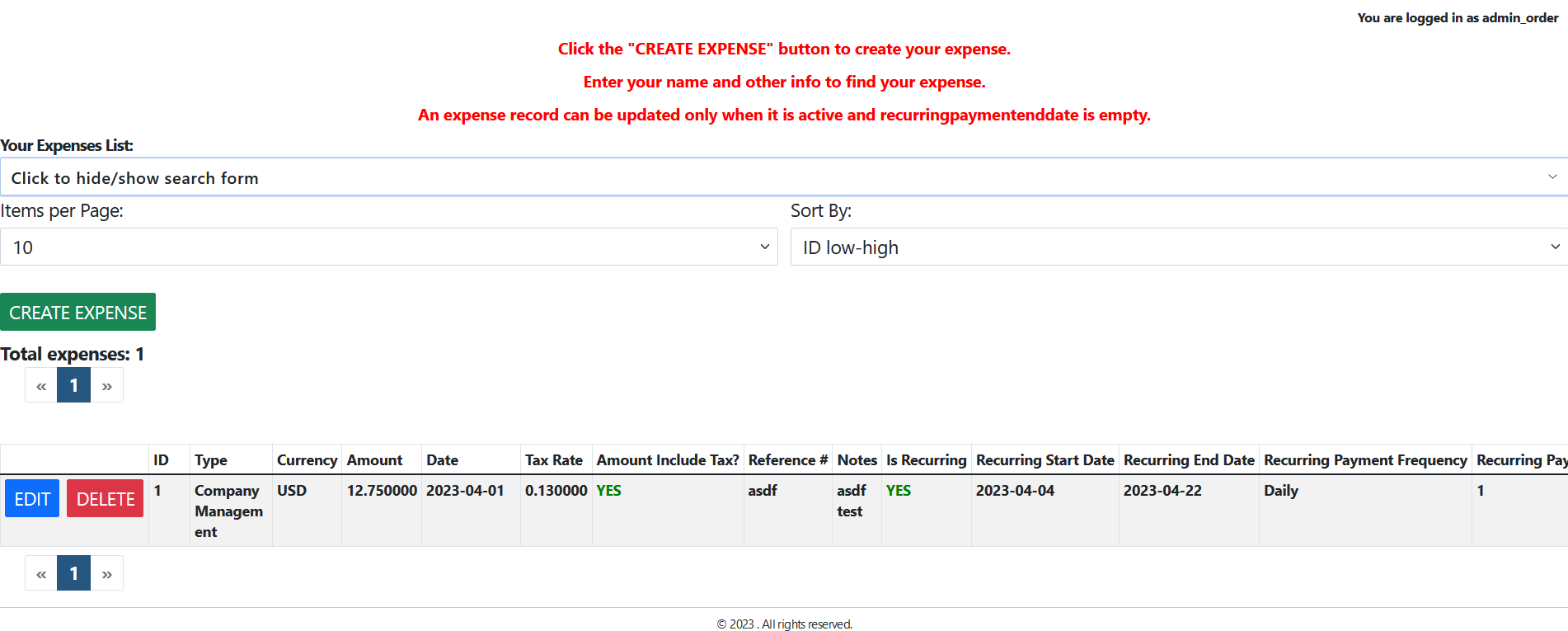


4. When creating/editing expenses, you can choose if the expense is recurring.

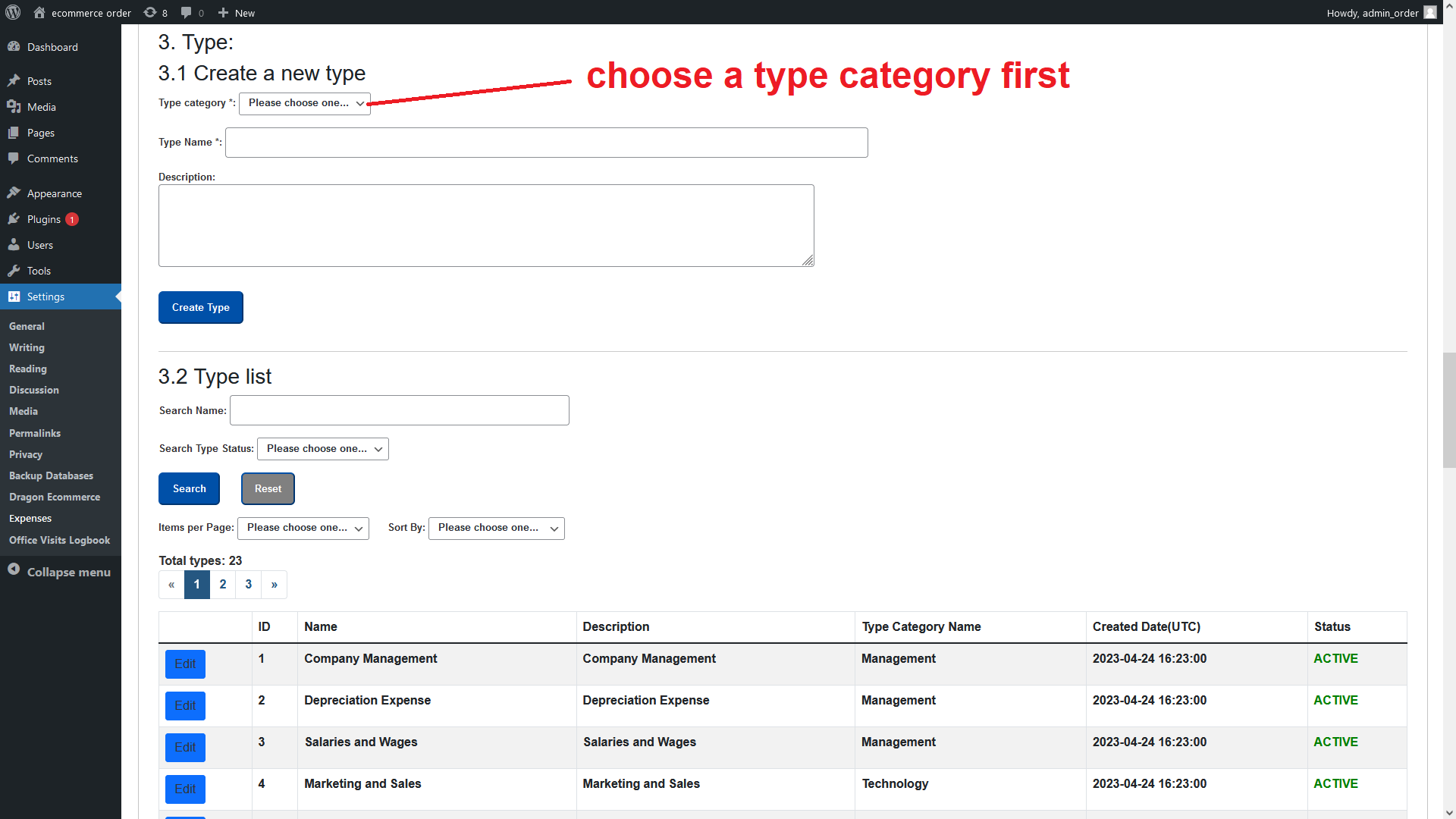


5. This plugin uses a lot of stored procedures. This makes it fast to process database queries.

6. This plugin uses Mysqli for database query. It can prevent SQL injection.

7. You can create/edit expenses. You can also delete the expense if you want. 

8. You can create/edit an expense type. See the image below:



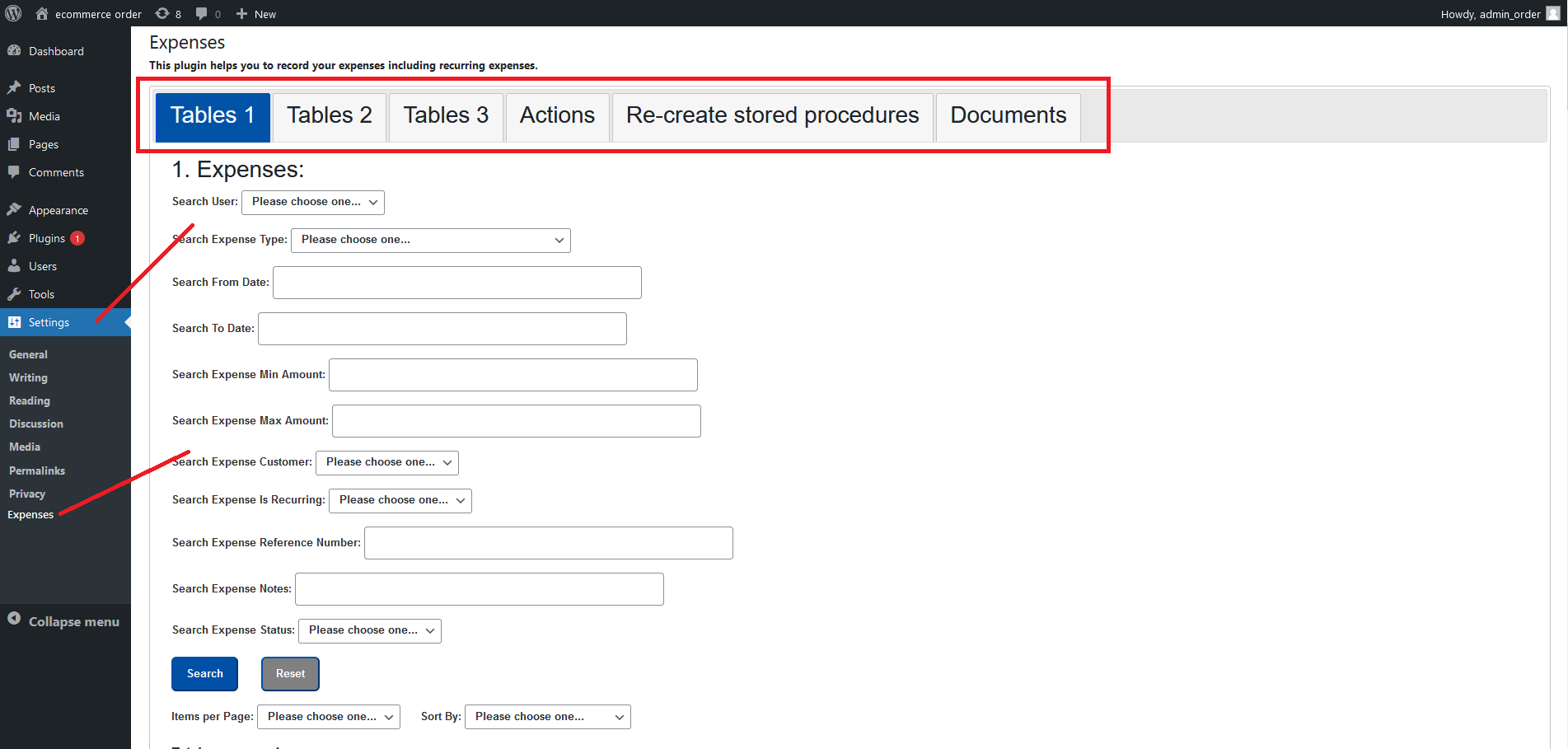
9. Mobile responsive. You can create/edit/delete expenses from desktop, laptop, tablets and cellphones by accessing your website. The typical company usage is from a desktop.

10. It can be used for any WordPress themes. It has its own menu and CSS file. It only needs one single URL to show a website to users. So it can be perfectly integrated into your existing WordPress website.

11. Single page is used for this plugin’s webpage. Parameters are added in the URL for a HTTP GET request. When do HTTP POST, the parameter values will be added into PHP and JavaScript code.

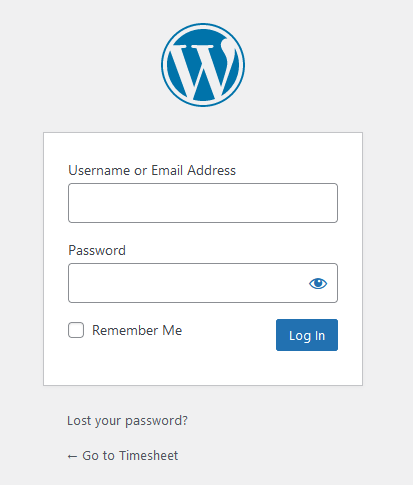
12. Since it's a single page design, you do not need to worry about if other plugin's URLs will have the same URLs as our plugin. For example, you do not need to worry if other plugins will have the same URL as our plugin: https://www.yourwebsite/index.php/expenses

13. Easy set up. You can edit every table from the plugin admin setting page.



14. In your web server's php.ini, you need to enable these extensions and restart your web server (apache, IIS, Nginx, etc.): curl, fileinfo, zip, mysqli, gd2, openssl, mbstring, exif. Then restart your web server computer.

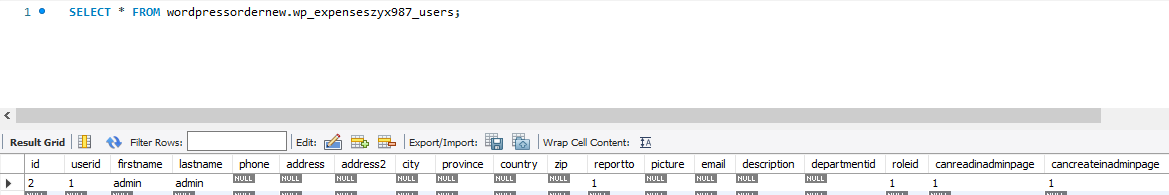
15. To use this plugin’s webpage, you must log in from the WordPress login page.



16. To prevent hackers, use https for your website. Do not use http for your website because hackers can get your website activity information. Plus, remove the username "admin" because it can be easily hacked by hackers. Use a difficult to guess username and password to log in your WordPress admin page. For example, username is b7v1P3T5y9W4C8Q2xk31u0, password is Z3u1T$9e5N2w3!L8S6X7!a9P0q7V3. Save username and password separately to different email address. You can also take two pictures of the username and password separately and save to your computer and cellphone. Here is an example about how to create a new administrator user. https://www.inmotionhosting.com/support/edu/wordpress/change-wordpress-admin-username-for-security/

17. For this plugin's programmers: if possible, cookies should be set as HTTPonly and samesite=strict. This can prevent CSRF attack. Each form has its own different WordPress nonce. Backend will validate if the nonce is correct. This can prevent hacks.

18. Only users in the table wp\_expenseszyx987\_users can access the admin setting page. After install and activate this plugin, if there is no admin user in the wp\_expenseszyx987\_users table, you will be added automatically to the wp\_expenseszyx987\_users table. If a user is not in the table, ask the website admin to add this user into the table. Here is an example for admin:



Userid is the ID in the WordPress table wp\_users.

19. **You need to check the constant table, double check all the names and values if they are correct.**

AMOUNT\_PER\_PAGE

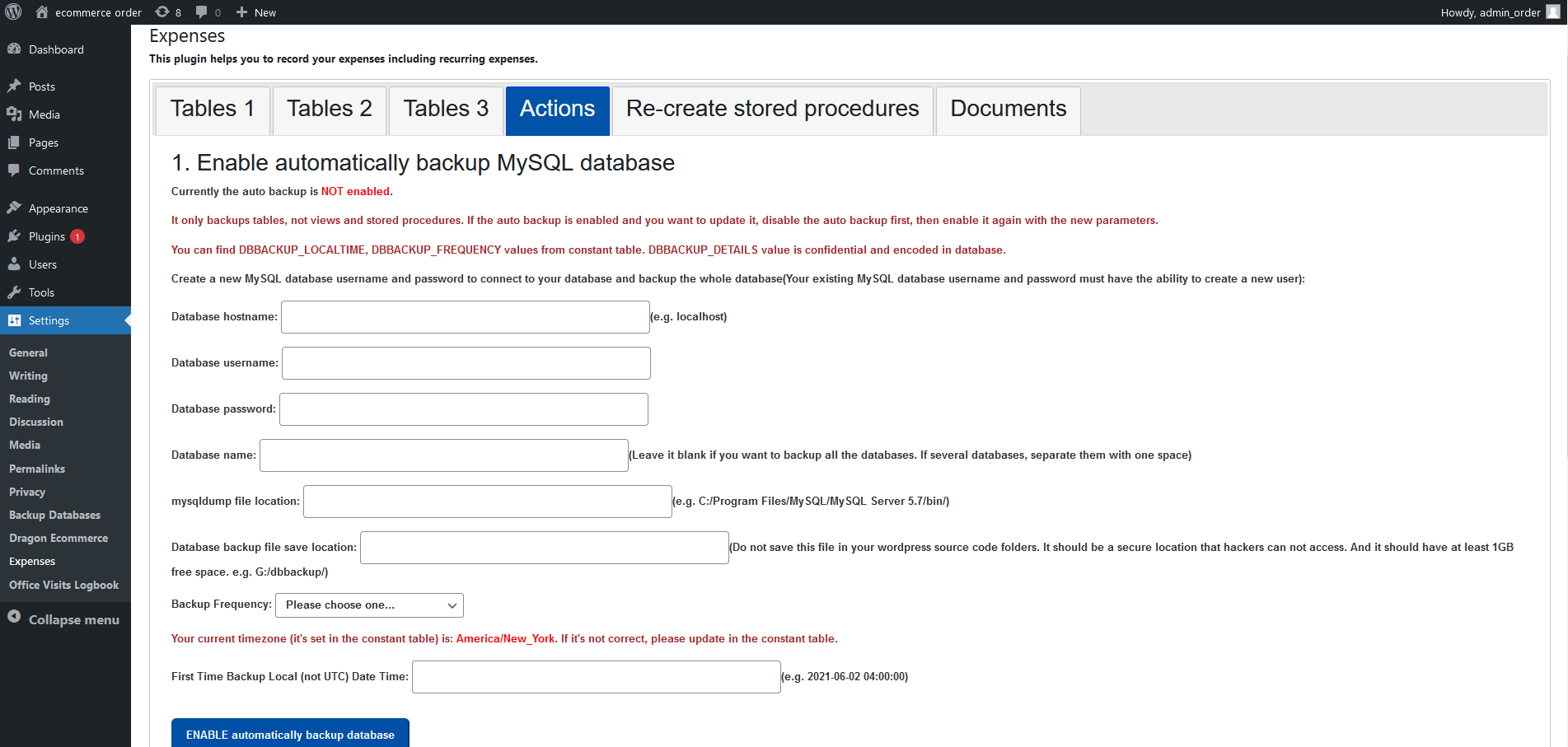
COMPANY\_NAME

COMPANY\_ADDRESS

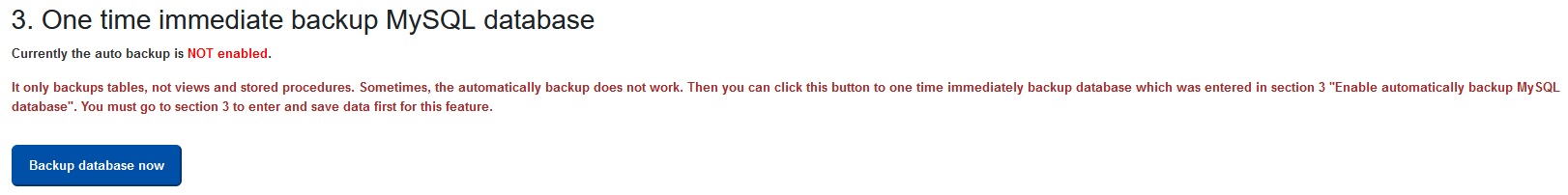
USE\_BOOTSTRAP\_JS

USE\_BOOTSTRAP\_CSS

20. This plugin has the option to automatically backup this MySQL database. Backup files are saved in the folder you specified. In WordPress 5.4, the automatic backup works. But in WordPress 5.8, sometimes it does not work. If that’s the case, try to use the one time backup button to back up the database whenever you need to backup. See the image below for the auto back up:



This is the one time backup:



21. One type category can have many expense types. An expense can have one expense type. For example, type category can be “Management”, “Technology”, “Other”. Types for “IT and Network Expenses” could be “Technology”.

**22. You must double check every table in the database to make sure all the data in the tables are correct. It’s your responsibility.**

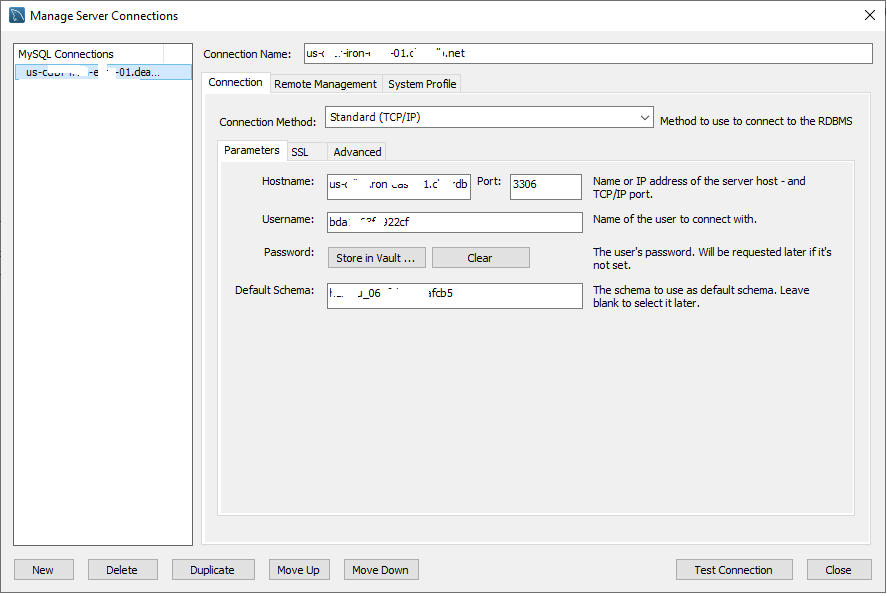
**23. After plugin activation, go to the "Settings" menu to find the plugin admin page. By default, when you activate this plugin, it will automatically create an expense landing page for you. For some themes, if it does not automatically create an expense landing page for you, add this plugin root folder template-expenses.php file to your template folder. For example, if you are using theme twentytwenty, then add the template-expenses.php file to this folder: wordpress\wp-content\themes\twentytwenty\templates. Then you can create a new page (not a new post) using this template.**

**When you use the template method to create a new expense page, do not set the page title to "expenses". If you set the page title to "expenses", it could conflict with the page automatically created when you activate this plugin.**

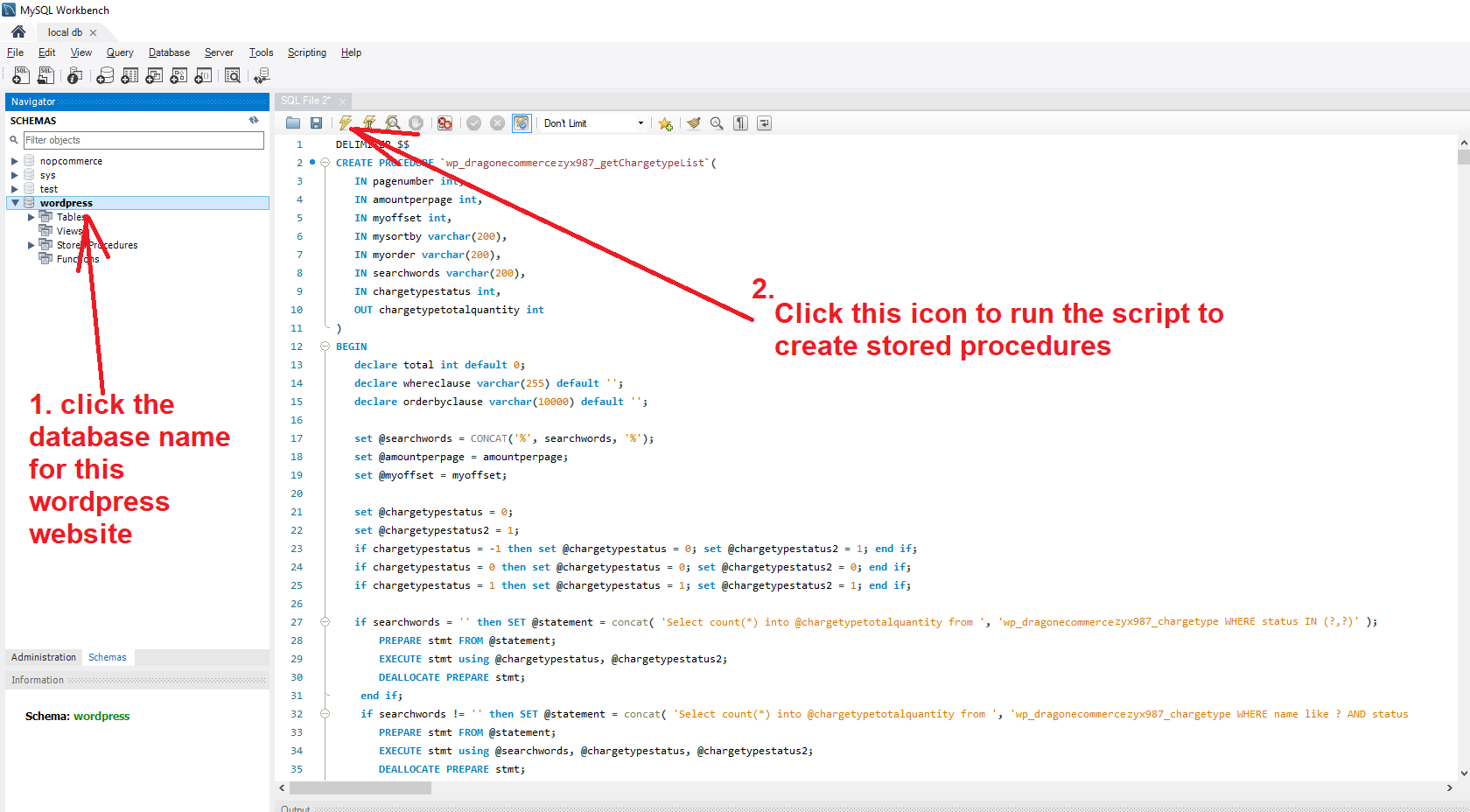
**After install and activate this plugin, check database if you have 12 stored procedures. If not, deactivate this plugin and activate it again. If it does not work, you can go to admin setting page, click “Re-create stored procedures” tab, and click “drop all the stored procedures” button. It will re-create those stored procedures for you.**

**If it still does not work, you need to remove current stored procedures and run a sql file**: create\_stored\_procedures.sql. It’s used to create stored procedures. It’s located at the plugin root folder. You need to run it in a MySQL database software such as MySQL Workbench, phpMyAdmin, or other software that you can run SQL script to change database. Here is an example to use MySQL Workbench to run this sql file:

1. Download MySQL Workbench from its official website. Google “mysql workbench download” and find its official website to download. Then run it on your computer.
2. Open the MySQL Workbench you just installed. Then click “+” to add a new connection. Enter database hostname, port, username, and password. Then click “test connection”. If it works, you can connect with the database. See the image below.



1. Connect with the database. Click the database name on the left menu. Then click top left icon “+” to add a new SQL tab for executing queries. Copy all the script in the create\_stored\_procedures.sql and paste it into the tab. Click execute icon on the top to run the script. If it works, it will create many stored procedures in the database for you. Check every stored procedure to see if it looks okay. See the image below.



**Then, you need to go to WordPress admin page, settings, Expenses, tab Tables 3, 9 Constant. Double check if this constant table is empty.** If this table is empty, you need to go to WordPress admin page, “re-create tables” tab, click “Drop constant table” to re-create this table. If you go to the MySQL database, the table name in the database is wp\_expenseszyx987\_constant.

**ATTENTION: Files in this folder and subfolders can be seen by everyone. Please remove any confidential files from this folder:**

wordpress\wp-content\plugins\expenses\files

**Basic configurations and steps:**

1. In your web server’s **php.ini** file, you need to uncomment or update these lines:

extension=curl

extension=fileinfo

extension=gd

extension=mbstring

extension=exif

extension=mysqli

extension=openssl

extension=zip

extension=gd2

1. **If you are the plugin installer, you have the administrator role, and the wp\_expenseszyx987\_users table does not have an admin user yet, then this plugin will add you to the wp\_expenseszyx987\_users table automatically when you activate this plugin.**
2. Go to WordPress admin page. In your **constant table**, you need to set each item’s value. Some values are already automatically set for you. You need to double check if these values are correct.

**COMPANY\_NAME**

This is your company name. It will show up on the footer area of the landing page.

**COMPANY\_ADDRESS**

This is your company address. It will show up on the footer area of the landing page.

**AMOUNT\_PER\_PAGE**

The above one is to set the amount of expense for each page on the web page. Default is 10. You can change it if you want.

**USE\_BOOTSTRAP\_JS**

The above one is to set if you want to use Bootstrap’s formatting javascript files. “yes” means you want to use. “no” means you do not want to use. Default value is “yes”. You can find Bootstrap info from this URL: https://getbootstrap.com/.

**USE\_BOOTSTRAP\_CSS**

The above one is to set if you want to use Bootstrap’s formatting css files. “yes” means you want to use. “no” means you do not want to use. Default value is “yes”. You can find Bootstrap info from this URL: https://getbootstrap.com/.

**DBBACKUP\_LOCALTIME**

If you want to back up your database, you need to setup this value. If you do not want to back up your database, just leave it blank. The above one is to set the database backup first time’s local time. Before you go to WordPress admin page’s “ACTION” tab to enable automatically backup MySQL database, you need to set up this value. The default value is “04:00:00”.

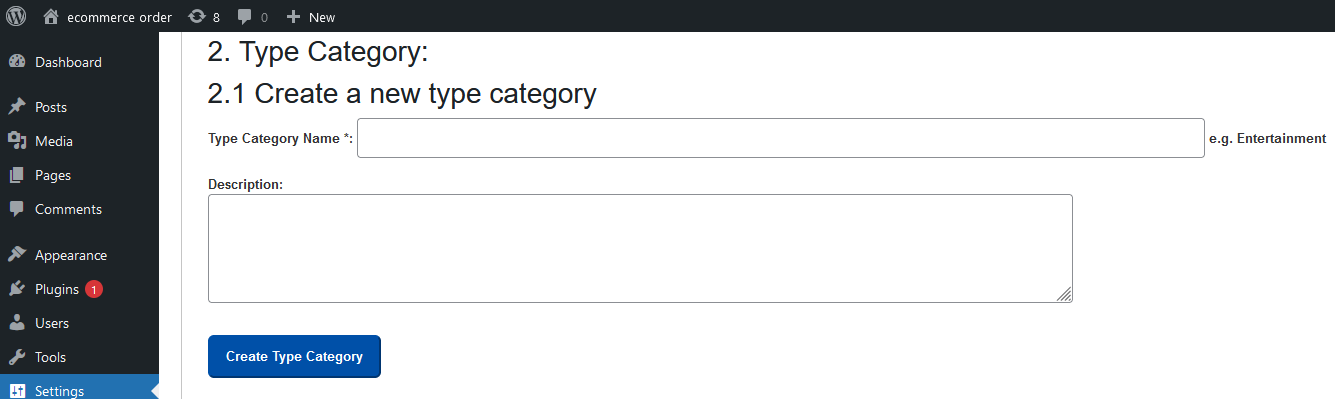
**DBBACKUP\_DETAILS**

If you want to back up your database, you need to setup this value. If you do not want to back up your database, just leave it blank. The above one is to set up the database backup command. When you go to WordPress admin page’s “ACTION” tab to enable automatically backup MySQL database, you need to enter database host name, username, password, mysql dump path, database backup file save location, backup frequency, first time backup local date time. After you click the enable button, the values will be saved to here in the database.

**DBBACKUP\_FREQUENCY**

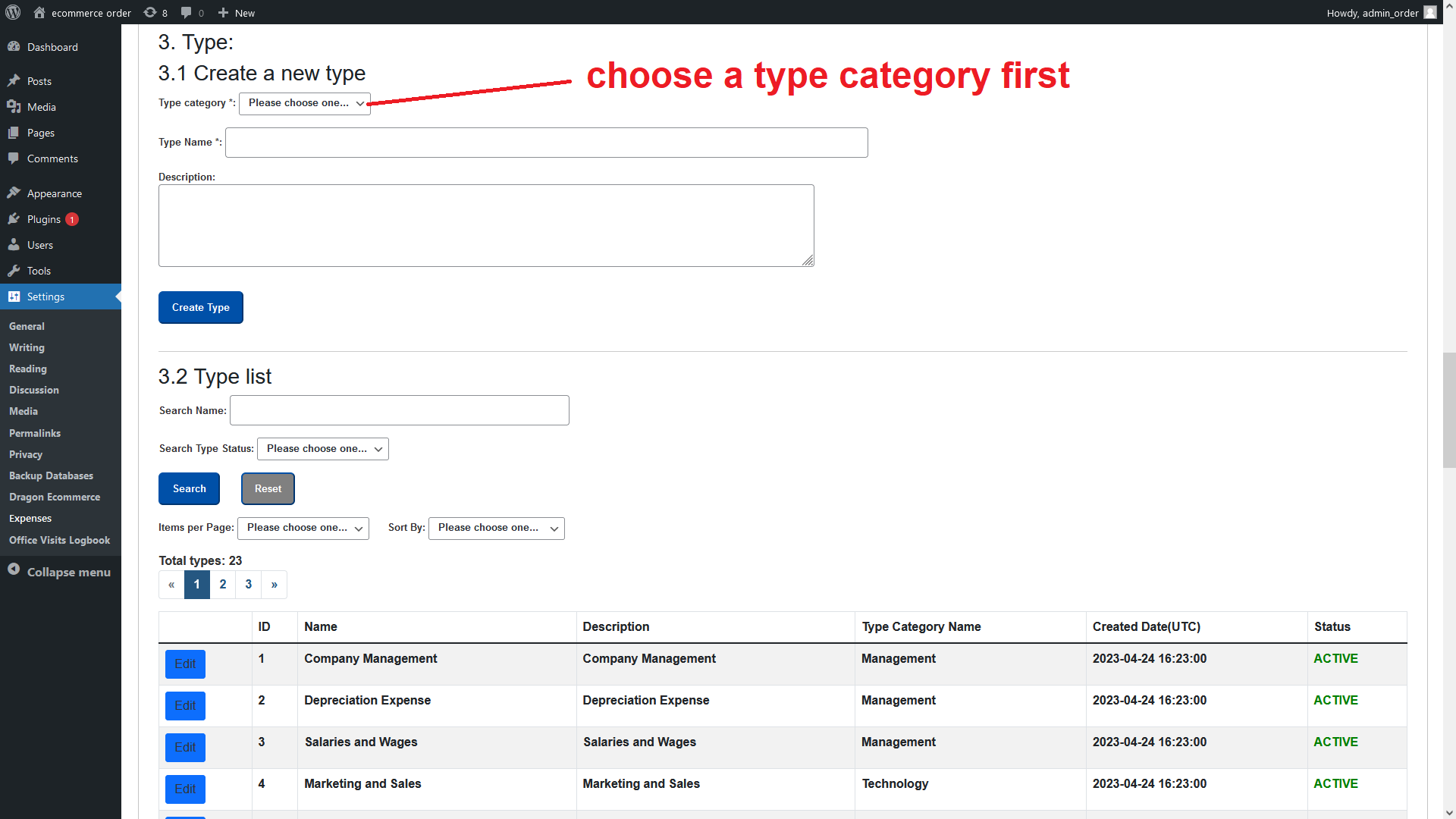
If you want to back up your database, you need to setup this value. If you do not want to back up your database, just leave it blank. The above one is to set up the database backup frequency. When you go to WordPress admin page’s “ACTION” tab to enable automatically backup MySQL database, you need to enter database host name, username, password, mysql dump path, database backup file save location, backup frequency, first time backup local date time. After you click the enable button, the backup frequency will be saved to here in the database.

1. Create type categories.



1. Create types:

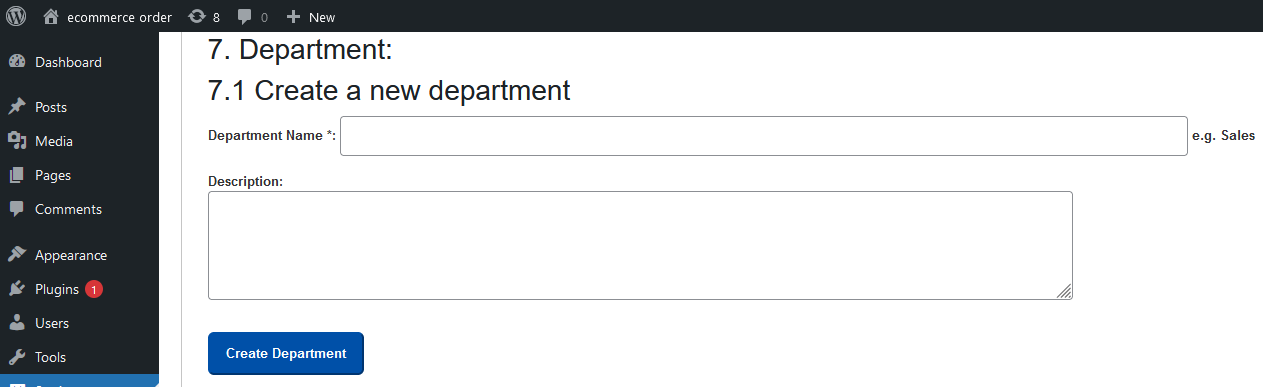
Choose the type category from the drop down list, and then enter name, and description.



1. Role:

You do not need to create any new roles.

1. Create departments:

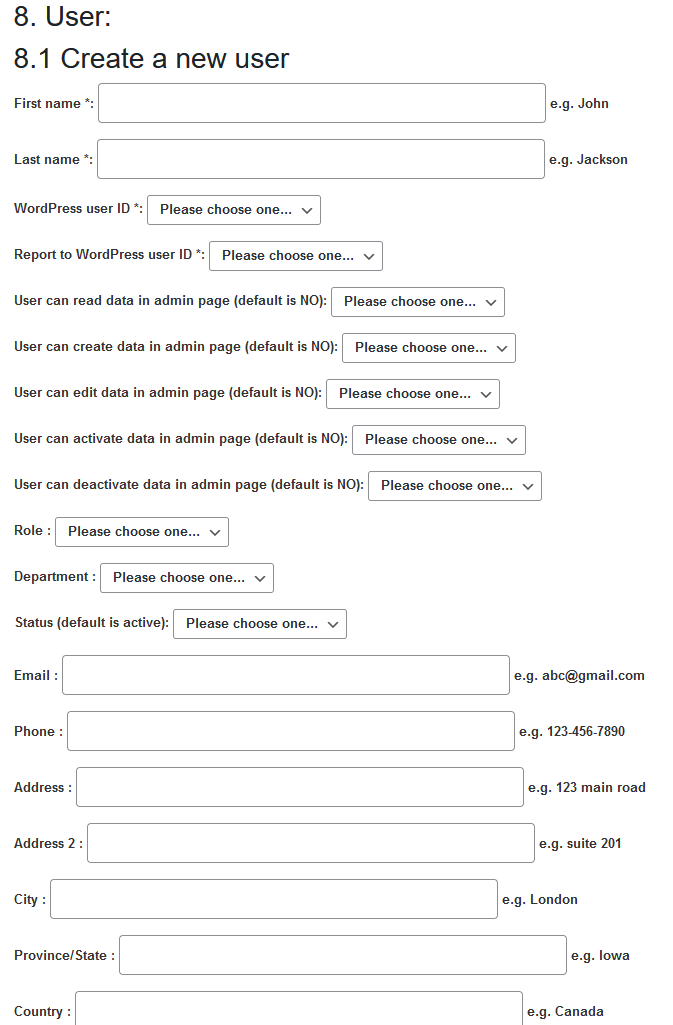


1. **Create new users:**

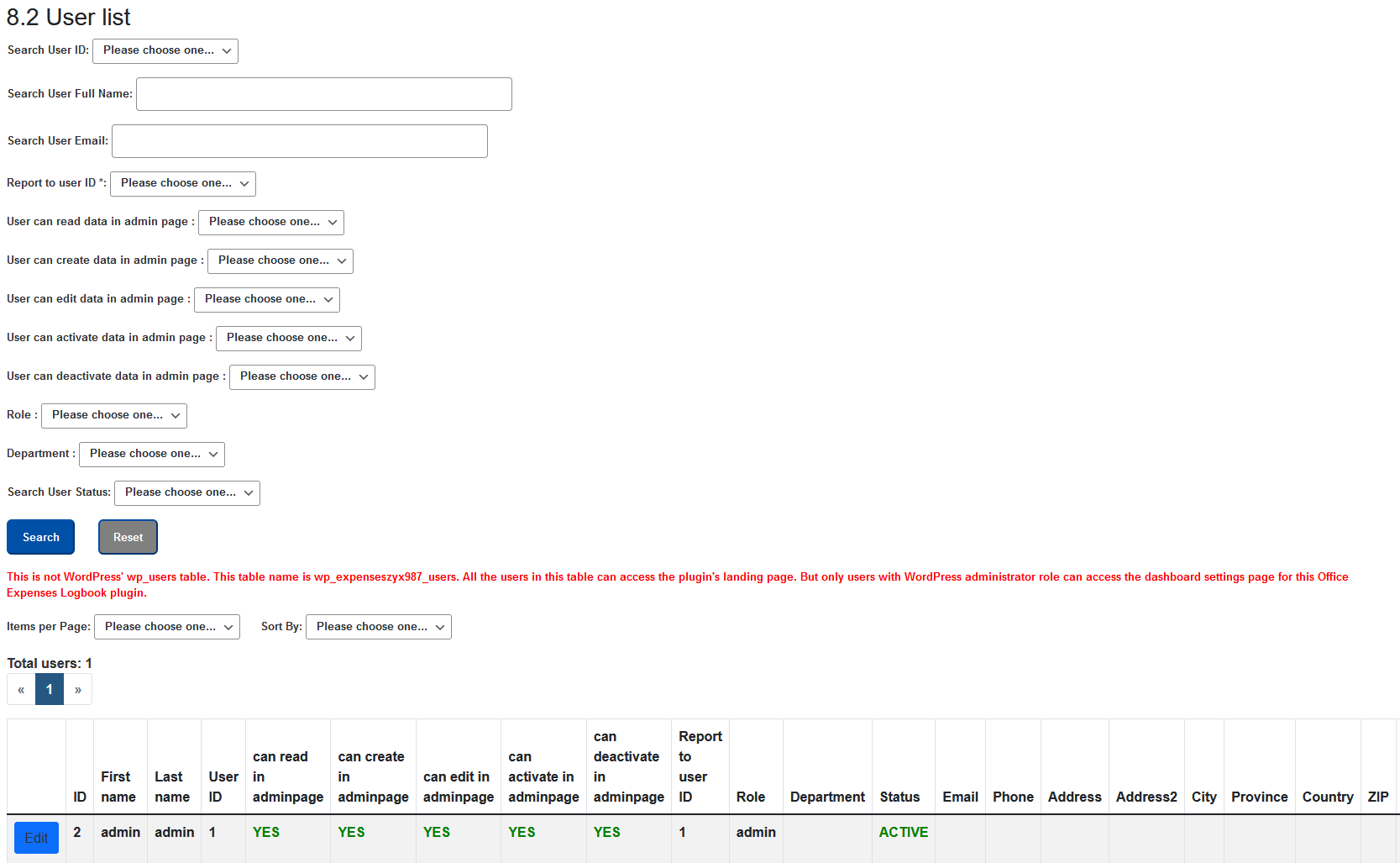
This step is very important. You need to add the employees who have WordPress user names into this table wp\_expenseszyx987\_users.

If the employee is not in this wp\_expenseszyx987\_users table, the employee cannot access this plugin’s webpage. And this employee cannot see the admin setting page.

When creating a new user, you need to enter that user’s WordPress user ID, which can be found in the wp\_users table. You also need to enter the user’s first name, last name, and createtimeutc (e.g. ‘2022-01-01’). You also need to set canreadinadminpage, cancreateinadminpage, caneditinadminpage, canactivateinadminpage, candeactivateinadminpage to 1. You can also set reportto to the user’s supervisor’s ID in the wp\_users table. Then add this record to wp\_expenseszyx987\_users table. **canreadinadminpage, cancreateinadminpage, caneditinadminpage are used to control each user’s ability to read, create new record, and edit records in the admin setting page for this plugin. Be careful about setting these values for each user.** Go to tab Tables 2, 8 User to create a new user.See the image below for the create user page:

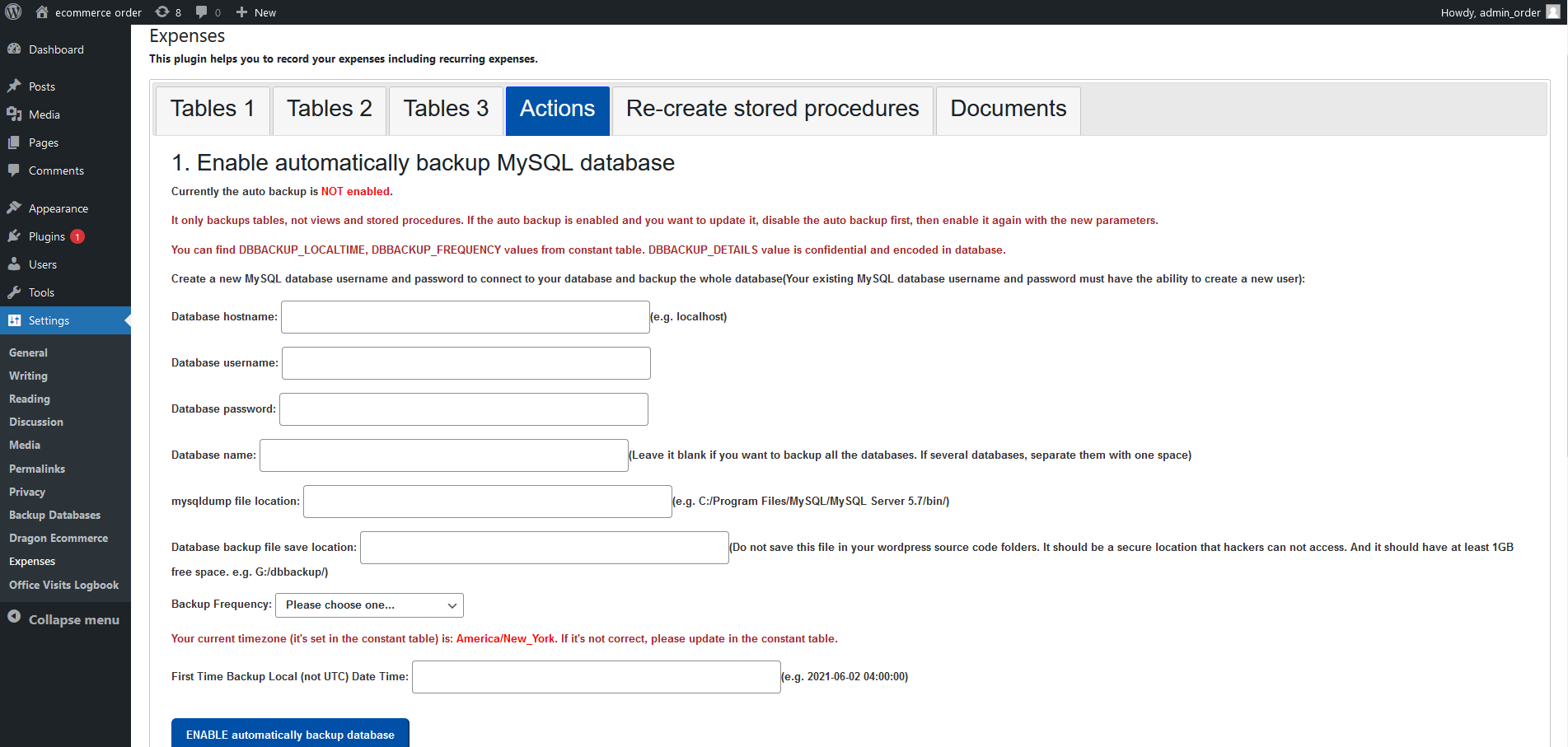


Here is an example for this wp\_expenseszyx987\_users table list:

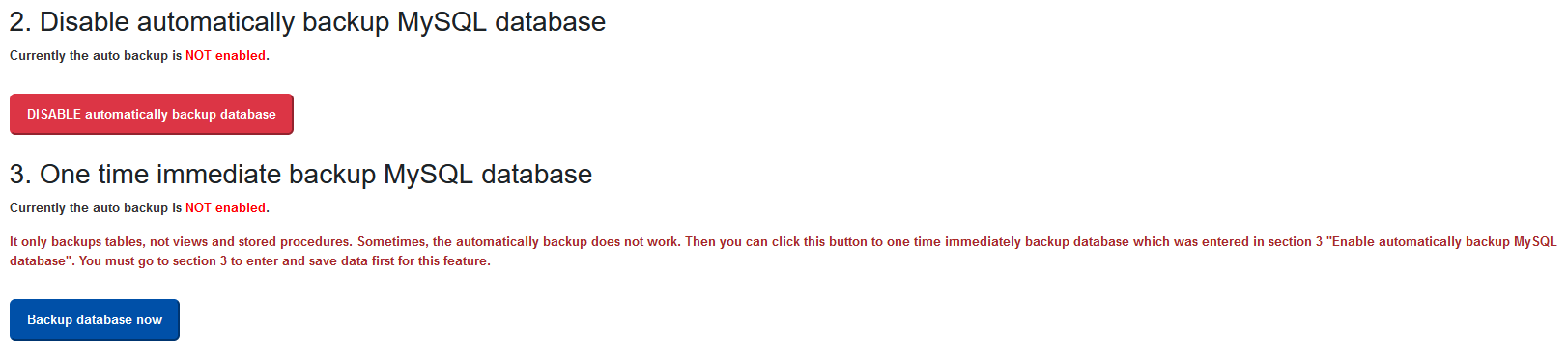


1. **Enable automatically back up database:**

For many reasons, you need to back up your database from time to time. This can be done in the admin setting page. The auto back up works for WordPress 5.4. But sometimes it does not work for WordPress 5.8. If it’s the case, just click the “back up database now” button to do one time back up. Here is the enable auto back up database screenshot:



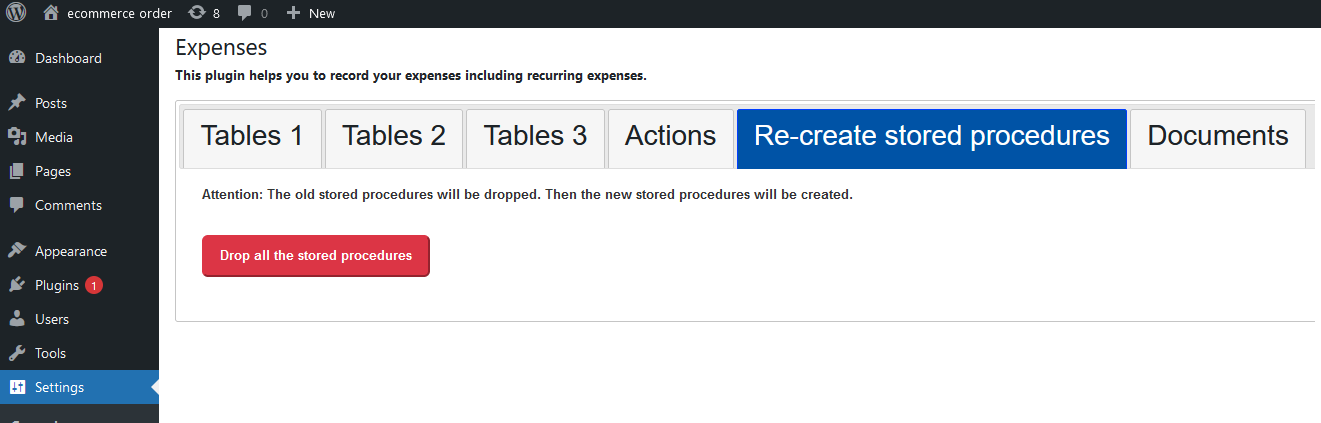
Here is the screenshot for disable auto back up and one time back up database:



The one time back up database uses the data you entered in “Enable automatically backup MySQL database”. So you must enter in that section first to use the one time back up feature.

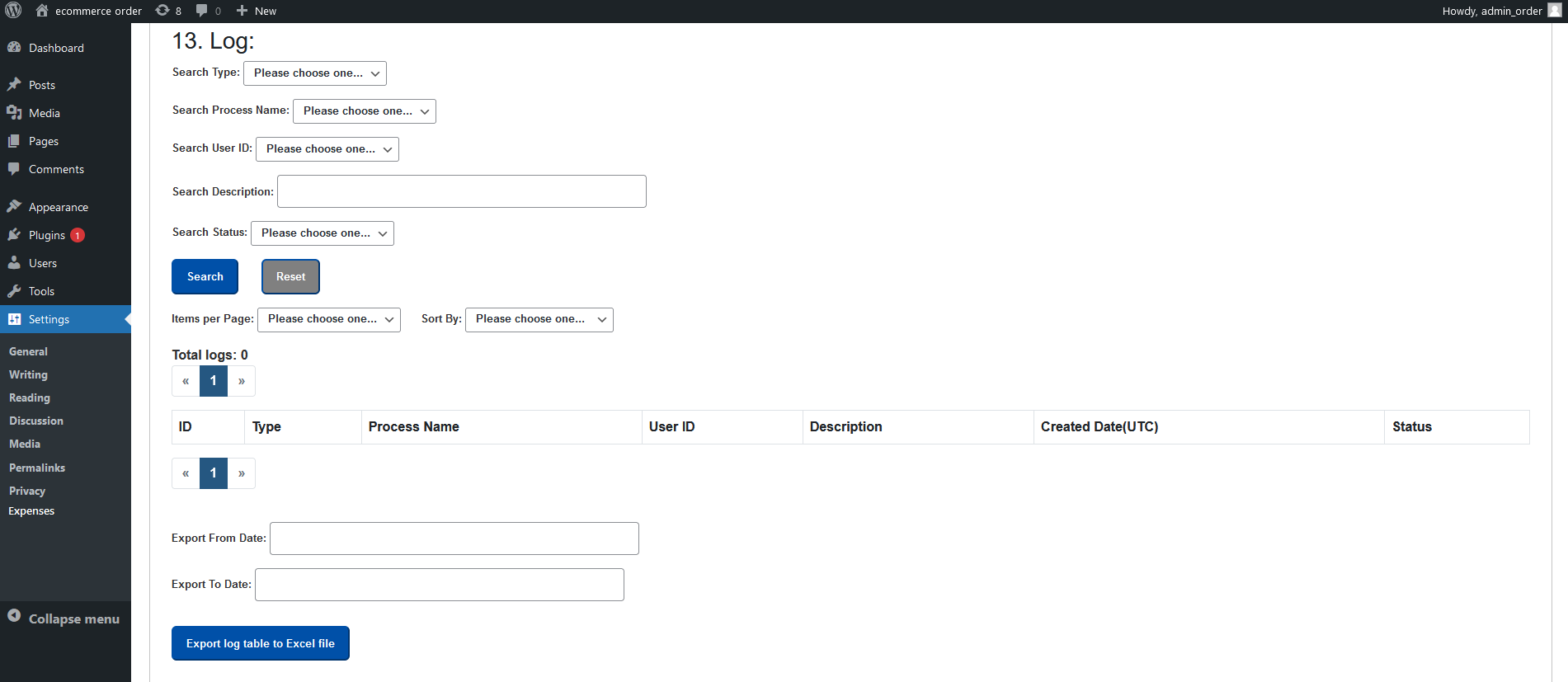
1. Re-create stored procedures:

When you have some issues with stored procedures, you can drop them and create them again. See the image below:



1. Log table:

You can track big issues from the log table. You can search it, drop the table and create a new one when the log table is too big. It’s in tab Tables 3, Log table. See the image blow:



To drop and create a new log table, you need to use MySQL Workbench or other software to access the database and manually drop and create a new log table.

**Install instructions:**

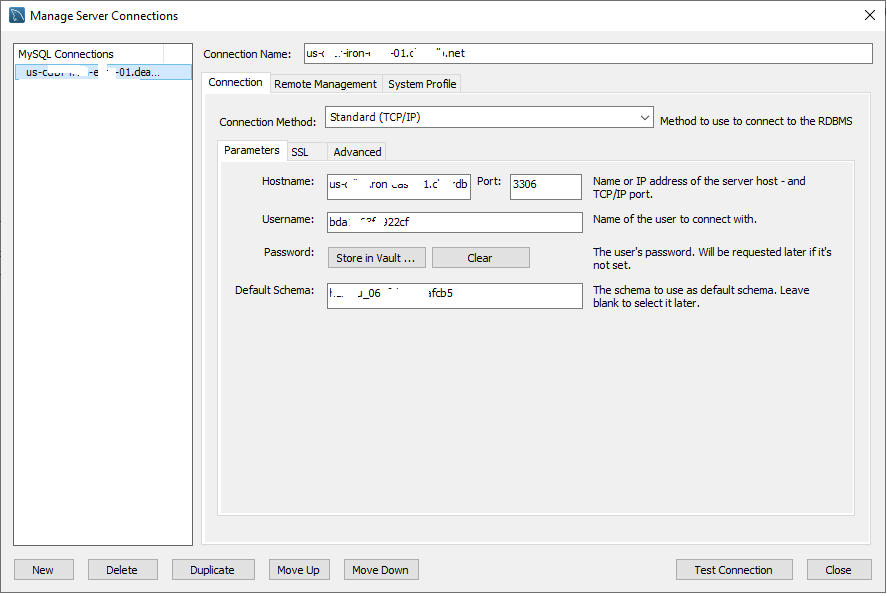
1. Unzip the file. Copy the folder into your /wp-content/plugins/ folder.
2. Log in to your WordPress admin page.

<http://yourwebsite.com/wp-login.php>

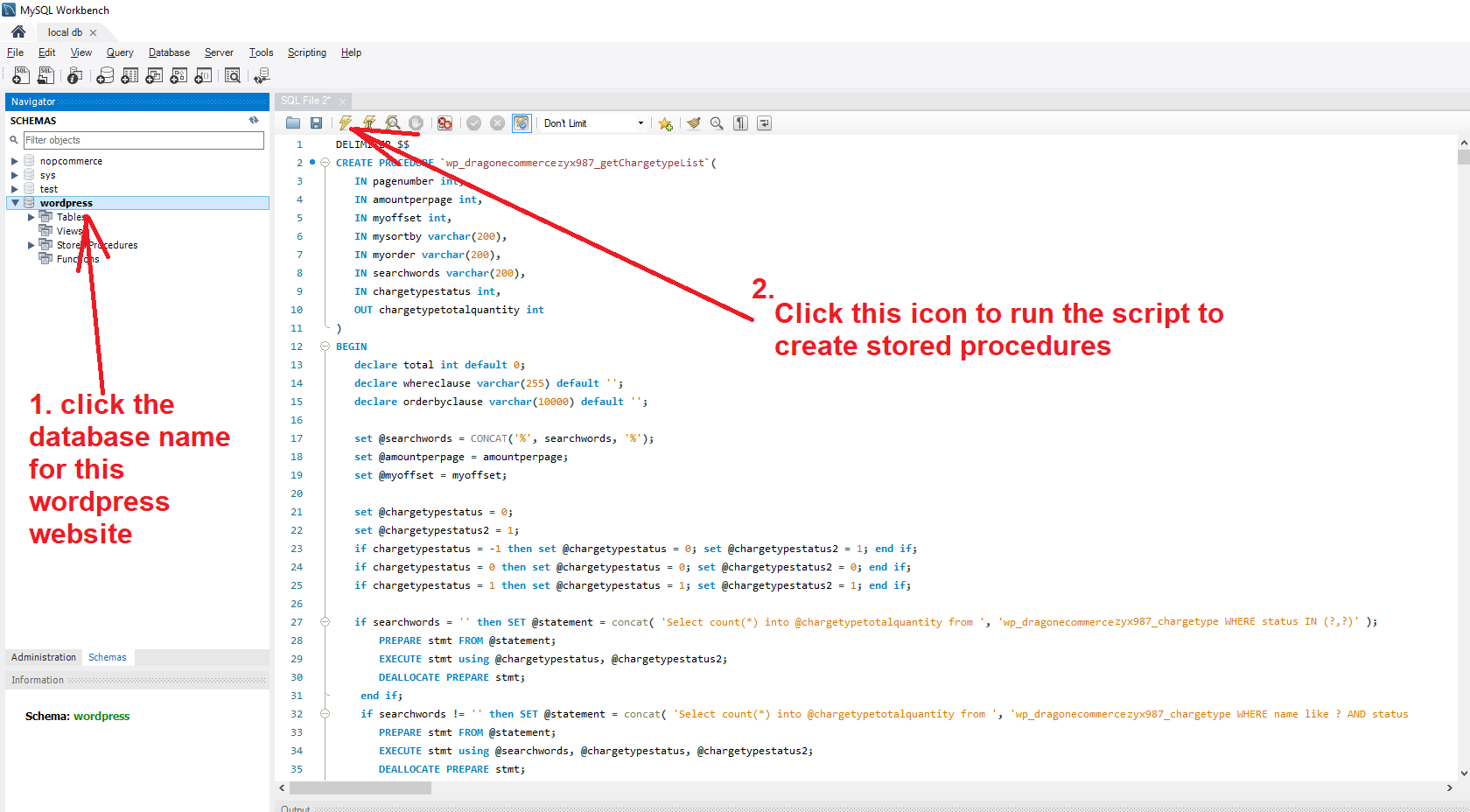
Click “Plugins” and click “Activate” to activate this plugin.

Hover on left menu’s “Settings” and you will find “Expenses” in the sub-menu. Click it and you will see the admin page for Expenses.

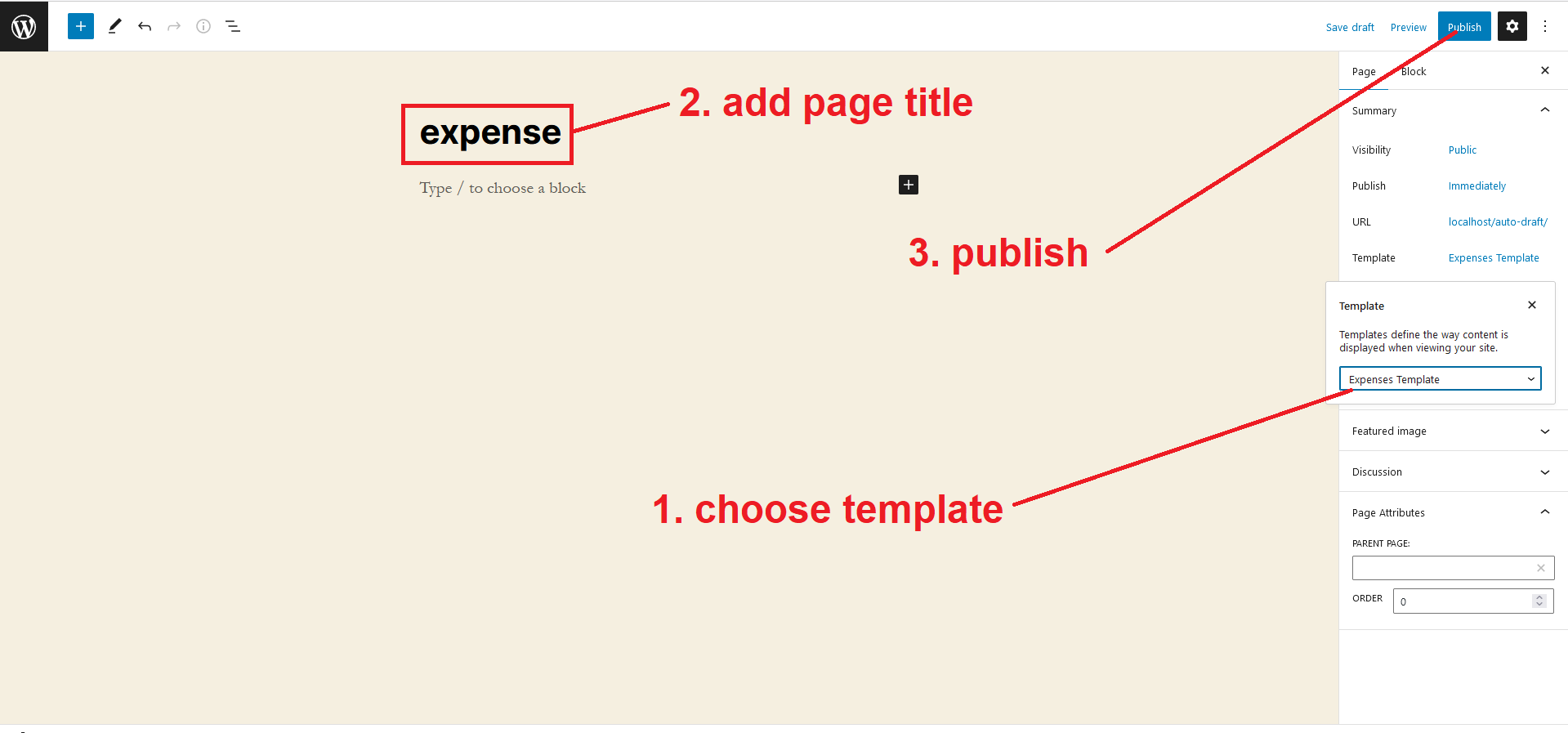
1. **After install and activate this plugin, check database if you have 12 stored procedures. If not, deactivate this plugin and activate it again. If it still does not work, you need to remove current stored procedures and run a sql file**: create\_stored\_procedures.sql. It’s used to create stored procedures. It’s located at the plugin root folder. You need to run it in a MySQL database software such as MySQL Workbench, phpMyAdmin, or other software that you can run SQL script to change database. Here is an example to use MySQL Workbench to run this sql file:
   1. Download MySQL Workbench from its official website. Google “mysql workbench download” and find its official website to download. Then run it on your computer.
   2. Open the MySQL Workbench you just installed. Then click “+” to add a new connection. Enter database hostname, port, username, and password. Then click “test connection”. If it works, you can connect with the database. See the image below.



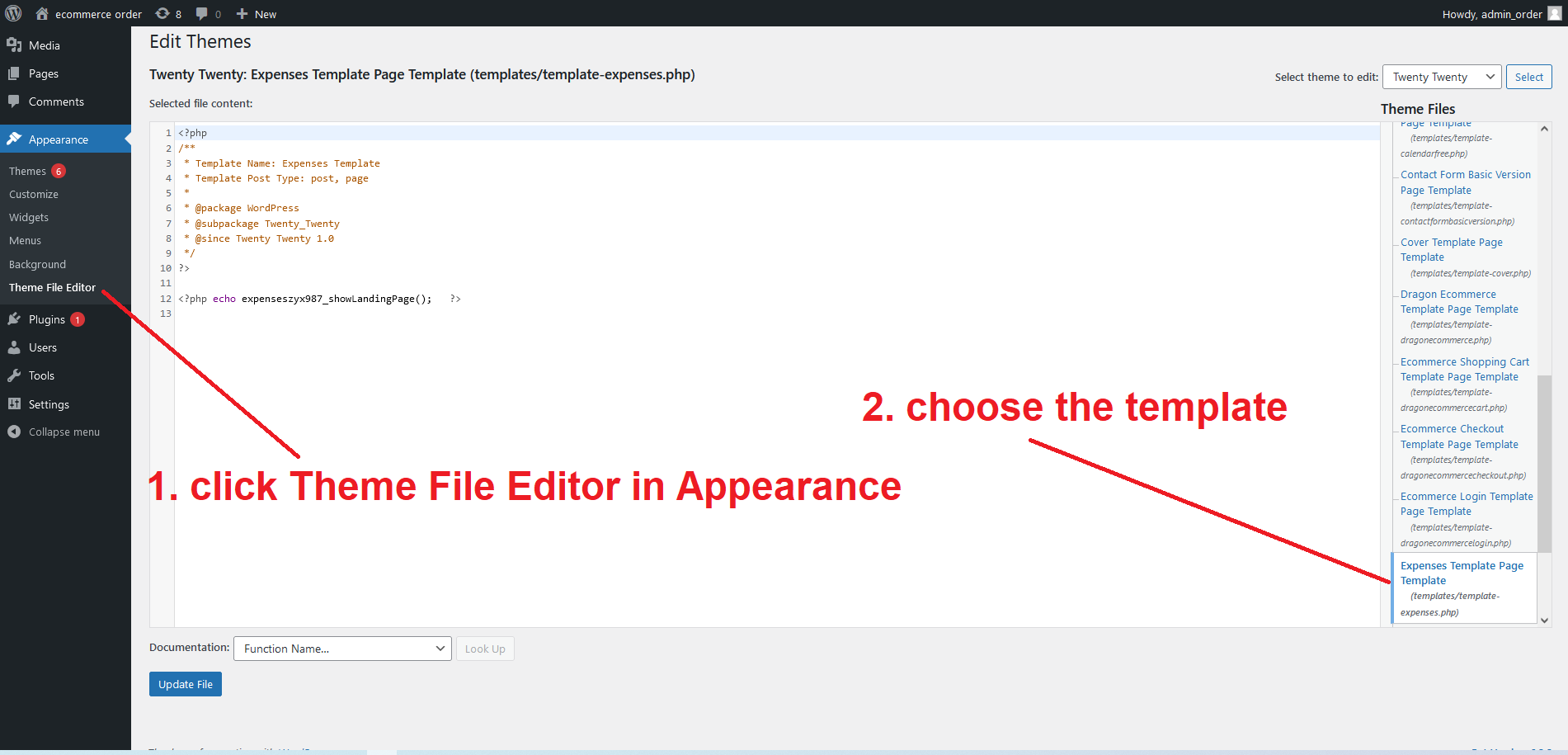
* 1. Connect with the database. Click the database name on the left menu. Then click top left icon “+” to add a new SQL tab for executing queries. Copy all the script in the create\_stored\_procedures.sql and paste it into the tab. Click execute icon on the top to run the script. If it works, it will create many stored procedures in the database for you. Check every stored procedure to see if it looks okay. See the image below.



1. Please follow the Basic configurations in page 15.
2. After plugin activation, go to the "Settings" menu to find the plugin admin page. By default, when you activate this plugin, it will automatically create an expense landing page for you. For some themes, if it does not automatically create an expense landing page for you, add this plugin root folder file template-expenses.php to your template folder. For example, if you are using theme twentytwenty, then add the template-expenses.php file to this folder: wordpress\wp-content\themes\twentytwenty\templates. Then you can create a new page (not a new post) using this template:



Then this expense landing page is created. You can edit the template file in the admin page:



**When you use the template method to create a new expense page, do not set the page title to "expenses". If you set the page title to "expenses", it could conflict with the page automatically created when you activate this plugin.**

1. Done. Now you can enter some data to test it.
2. You can custom set this plugin’s style. Our custom css file is at:

/wordpress/wp-content/plugins/expenses/css/expenses.css

**demo website:**

<https://contactformbasicversion.herokuapp.com/index.php/expenses/>

**admin page:**

<https://contactformbasicversion.herokuapp.com/wp-admin/>

Log in WordPress admin page using

username:

admin

password:

l52BYA@#sk&J3YI03g

Then, go to

https://contactformbasicversion.herokuapp.com/wp-admin/options-general.php?page= Expenses

to set up the admin page.

Then, you can test expense create/edit/delete:

**Documentation:**

[https:// contactformbasicversion.herokuapp.com/](https://dragonecommerce-documen.herokuapp.com/) log in as admin, then go to setting > Expenses, click tab “Documents”, “Manual pdf”.

https://contactformbasicversion.herokuapp.com/wp-content/plugins/expenses / documentation\_expenses.pdf

**Platform and Database:**

You can run it on any platform: Windows, Mac, Linux.

Database is MySQL. It's free.

PHP version: PHP 5 >= 5.5.0

**Attention: PHP version and WordPress version may have compatibility issues. For example, WordPress 5.4 may not match PHP 8. Check this website for details:** [**https://make.wordpress.org/core/handbook/references/php-compatibility-and-wordpress-versions/**](https://make.wordpress.org/core/handbook/references/php-compatibility-and-wordpress-versions/)

1. PHP has support for the mysqli extension (to be used for prepared statement)

2. Must use HTTPS, not http. If website use HTTP, tell the website admin - cannot use this plugin.

3. Since PHP 5.4 there are constants which can be used by json\_encode() to format the json response how you want. To remove backslashes use: JSON\_UNESCAPED\_SLASHES. Like so: json\_encode($response, JSON\_UNESCAPED\_SLASHES);

4. Auto backup database weekly is for WordPress 5.4 and above. Sometimes it does not work for WordPress 5.8. Then you need to go to the admin setting page to click the “backup database now” button to do one time database backup.