# Connecting to MySQL from Heroku

Heroku provides free MySQL database access. However, there are a few limitations:

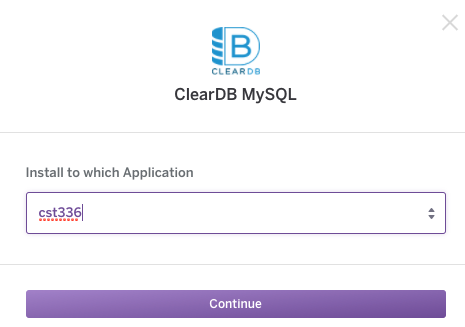
1. You cannot create new databases. You must use the one given to you. You can add as many tables as you want.
2. It does not provide an online tool like PhpMyAdmin to access the database. You must install your own database client (there are several free clients)
3. It doesn’t seem you can create new users to access the database. You cannot rename your database name either. The database and user names are impossible to remember.
4. You must use a credit card to add a database (you can use a pre-paid debit card)

# Section 1: Installing a ClearDB MySQL Database

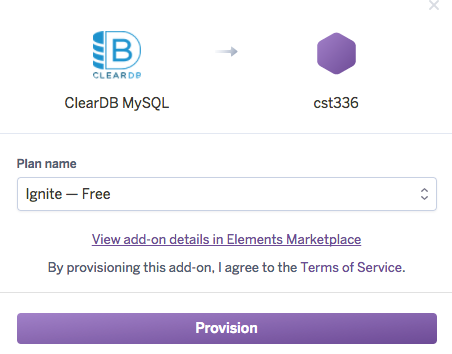
1. Go to <https://elements.heroku.com/addons/cleardb> and login using your Heroku credentials.
2. Click on the “Install ClearDB MySQL” button located on the top-right corner.



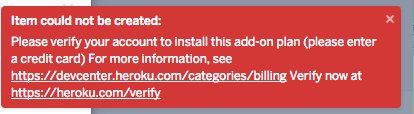
1. Select the application to install it into. Your application name might be different from the one shown in the screenshot below. Click on the “Continue” button.



1. Select the “Ignite-Free” Plan name and then click on “Provision”



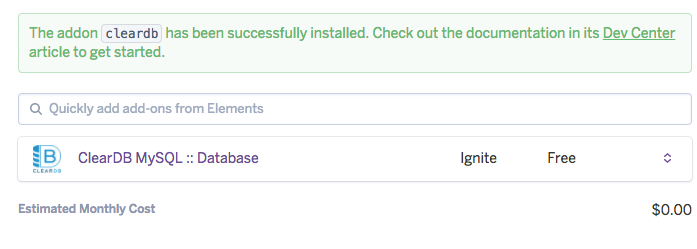
It will give an error message, asking us to enter a credit card info.



1. Open a new browser tab and go to:

<https://dashboard.heroku.com/account/billing>

Click on the “Add Credit Card” button and enter the pre-paid card info.

1. Go to back to the MySQL installation page and click again on the “Provision” button. You should see a message like the screenshot below.  
     
   

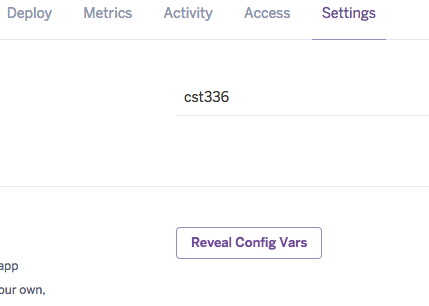
# Section 2: Getting Database Info

In order to connect to a MySQL database, we need four pieces of information:

1. The database name
2. A username
3. A password
4. The Domain Name where the database resides

Let’s get them!

1. Go your Heroku app. Under the “Settings” tab, click on the “**Reveal Config Vars**” button



2) You should see a variable called “CLEARDB\_DATABASE\_URL” with a value something like:

mysql://b4ec28ac117d04:e77c8602@**us-cdbr-iron-east-03.cleardb.net**/heroku\_e025c2bcd9ffba75c?reconnect=true

The part highlighted in yellow is the username and in green the password.

**The host name is located between the “@” symbol and the slash.**The database name follows the last slash (in red).

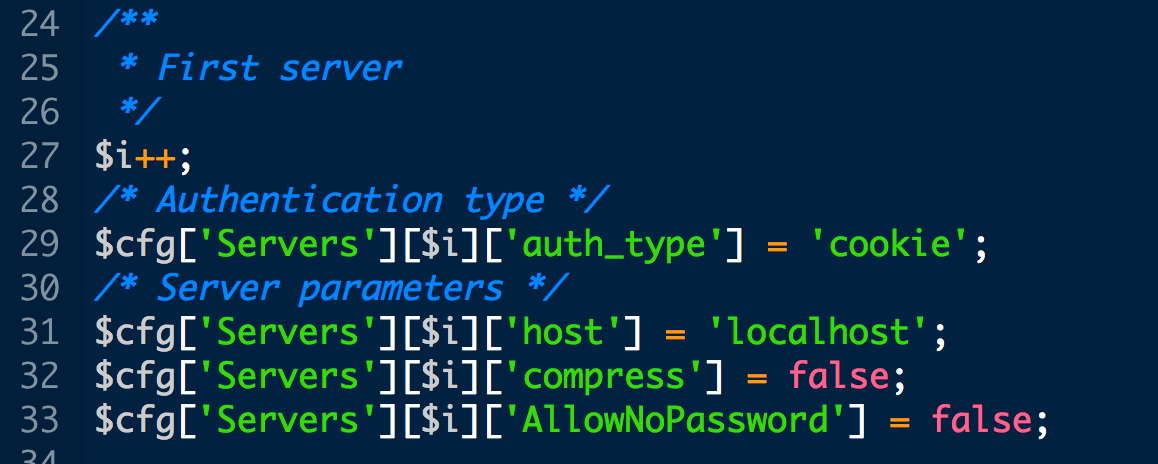
# Section 3: Connecting to ClearDB Database

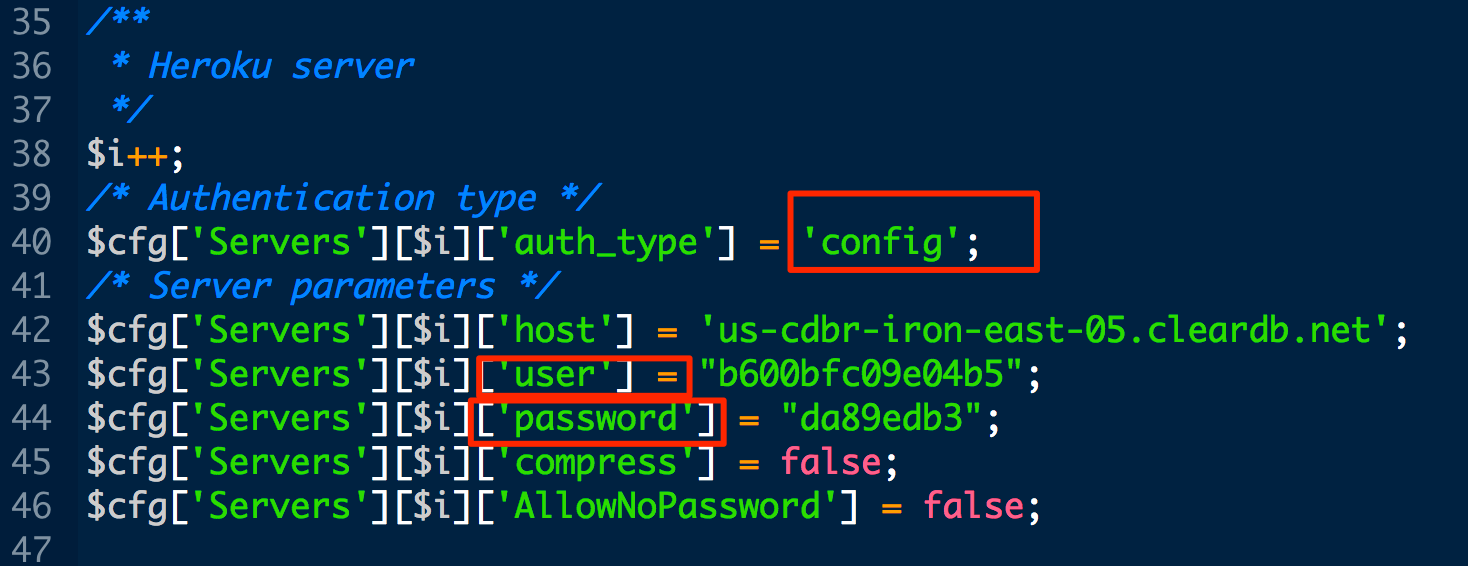
Once you have the username, password, and hostname of the database server, you can connect to it using any database client. There are many free database clients that you can use to connect to the ClearDB database. If you prefer, you can download and install some of these clients in your local computer: [Sequel Pro](https://sequelpro.com/download), [MySQL Workbench](https://dev.mysql.com/downloads/workbench/).

We are going to use the most popular tool to connect to a MySQL database: phpMyAdmin and we’ll install it in Cloud 9.

1. Download the latest version of phpMyAdmin. Go to <https://www.phpmyadmin.net/downloads/> and click on the green download button located at the top right corner.  
     
   
2. Unzip the file that was downloaded to your computer and **rename the folder** to just **phpMyAdmin**. This will make it easier to access it later on.
3. Uploaded the phpMyAdmin folder to your Cloud 9 workspace. Make sure to upload it to **your root folder** in cloud 9 (the one above your github folder). You don’t want the phpMyAdmin in your github folder, otherwise it will end up in your github repository. It will take several seconds to upload it since it has many files. Be patient and don’t interrupt the process.
4. Once it has finished uploading all the files, open the phpMyAdmin folder in Cloud 9 and locate the file called “config.sample.inc.php”. Duplicate it and rename the copy to “**config.inc.php**”. phpMyAdmin uses this special file for settings configuration.
5. Open the “config.inc.php” file. Locate the line with the configuration variable:  
     
   $cfg['Servers'][$i]['AllowNoPassword'] = true;

Usually, it’s in line 33. Change its value from true to false. This setting will allow us to access the MySQL server in Cloud 9 using phpMyAdmin as well.

1. In the “config.inc.php” duplicate all the information for the first server, usually it should be from line 24 to line 33 (see screenshot below). Paste the information right below it, in line 35.  
     
     
   
2. Make the following changes to the pasted lines:
3. Change the auth\_type from ‘cookie’ to ‘config’
4. Change the ‘host’ configuration line from ‘localhost’ to your Heroku’s host name (the one you got in Section 2 of this tutorial)
5. Add the ‘user’ and ‘password’ configuration lines (see lines 43 and 44 in the screenshot below). Assign the corresponding values.



1. Run the index.php file located within the “phpMyAdmin” folder. You should see something similar to the screenshot below. In the “Server Choice” dropdown you can select the MySQL server you want to connect to.   
     
   “localhost” means your Cloud 9 database. Just enter “root” (without quotes) as the username and you should be able to connect.  
     
   Selecting the second server should allow you to connect to your Heroku database.

