**Possibly make an addresses table and connect them to customers and orders via foreign key**

Should probably move the encryption to the server instead of db and use bcrypt for the encryption stuff

We will AES to store passwords where the secret key of the will be concatenation of SHA2 of the row’s id and some string I’ll make up

* **aes** - these functions use the official AES algorithm (also known as "Rijndael") that provides encoding with a 128-bit key.

To encrypt a password use the AES\_ENCRYPT(str,key\_str) function:

mysql> INSERT INTO `users` (`email`, `pswd`) VALUES ('user6@example.com', AES\_ENCRYPT('pass123', 'secret'));

Query OK, 1 row affected (0.01 sec)

To decrypt a password previously encypted with the AES algorithm use the AES\_DECRYPT(crypt\_str,key\_str) function:

mysql> SELECT AES\_DECRYPT(`pswd`, 'secret') AS `pswd` FROM `users` WHERE `email` = 'user6@example.com';

+-----------+

| pswd |

+-----------+

| pass123 |

+-----------+

1 row in set (0.00 sec)

* **des** - these functions use the Triple-DES algorithm. Note that they work only if MySQL has been configured with SSL support.

To encrypt a password use the DES\_ENCRYPT(str[,(key\_num|key\_str)]) function:

mysql> INSERT INTO `users` (`email`, `pswd`) VALUES ('user7@example.com', DES\_ENCRYPT('pass123', 'secret'));

Query OK, 1 row affected (0.00 sec)

To decrypt a password previously encypted with the DES algorithm use the DES\_DECRYPT(crypt\_str[,key\_str]) function:

mysql> SELECT DES\_DECRYPT(`pswd`, 'secret') AS `pswd` FROM `users` WHERE `email` = 'user7@example.com';

+-----------+

| pswd |

+-----------+

| pass123 |

+-----------+

1 row in set (0.00 sec)

**CONCLUSION**

The [AES](https://zinoui.com/blog/storing-passwords-securely#aes) standard provides the best defense in terms of security than the rest of algorithms described in this article. The AES\_ENCRYPT and AES\_DECRYPT functions are the best choices to store a sensitive data (e.g. passwords, credit card numbers, etc.).