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Index of ilustrations

Developer ID: *122*
Plugin name: *Authenticaction extenstion based on second factor with Latch for Mediawiki*
Github repository: *https://github.com/pauloba/latch-plugin-mediawiki*
Youtube URL: *https://www.youtube.com/watch?v=P9BZqSz0ZcY&feature=youtu.be*

1 Motivation and description

Most of the services that companies offer are connected to the Internet, services like Play Station Network, Xbox Live, Nespresso Club, Amazon, Ebay, etc.
Nowadays the credential thiefs are organized mafias that are always looking for new ways of making money.
Credential robbery is not only an economic loose it has the inherent problem that users will tend to avoid services that are known for being compromised.
This robbery is continually evolving to more sophisticated methods that are making it more and more difficult for the final user to being protected.
One of the possible solutions to this problem are the 2FA, like criptografic tokens that store biometric data, the disadvantage of this systems is that they can be easily lost.
There are other methods to implement 2FA like the cards normally used by banks to add an extra layer of security.
Another type of 2FA are systems like Google Authenticator or Latch that implement this second factor via software.
The advantage of using a system like Latch is the simplicity of use, and also that everybody has the mobile phone with them any time.

This plugin was developed to help the Mediawiki Community of users to apply a layer of security to their wiki accounts.
As Mediawiki is the most extended software platform to deploy a wiki infraestructure and is also free software, I tought it would be a good idea to integrate Latch with this framework.

1.1 Use cases

Tha main use cases of this plugin are check account, pair account and unpair account.
In the following paragraph we will have a look at each of the secuence diagrams of this use cases.

Check status

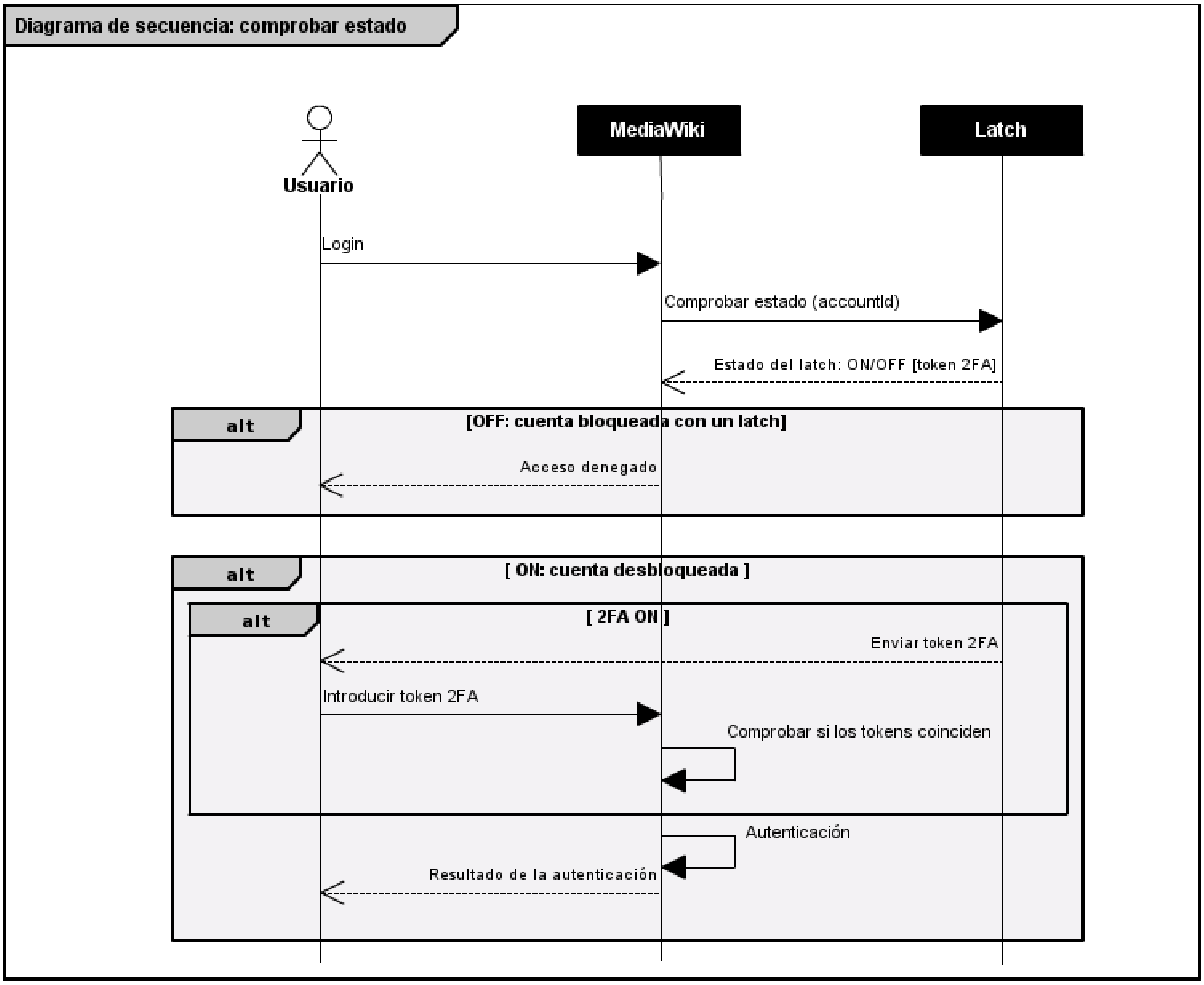


Diagrama de secuencia: comprobar estado
Usuario
MediaWiki
Latch
Login
Comprobar estado (accountId)
Estado del latch: ON/OFF [token 2FA]
alt
[OFF: cuenta bloqueada con un latch]
Acceso denegado
alt
[ON: cuenta desbloqueada]
alt
[2FA ON]
Enviar token 2FA
Introducir token 2FA
Comprobar si los tokens coinciden
Autenticación
Resultado de la autenticación

<table>
<tr><th colspan="2">Check status</th></tr>
<tr><td>Actor</td><td>Final user</td></tr>
<tr><td>Description</td><td>The user logs in with his/hers Mediawiki credentials and the system checks if there is a digital latch that fobids the access to the account.
If there is a digital latch and it is closed the user will receive a notification telling about the fraudulent access to his/hers account.
If there is a digital latch and its opened the user will access normally to the Mediawiki account.</td></tr>
<tr><td>Preconditions</td><td>The user logs into the account correctly.</td></tr>
<tr><td>Post-conditions</td><td>If there is a digital latch and it is closed a pop up notification is shown in the mobile app telling the user about the fraudulent access to the Mediawiki account.</td></tr>
<tr><td>Event flow</td><td>
<table>
<tr><th></th><th>User input</th><th>System response</th></tr>
<tr><td>1</td><td>The user introduces his/hers Mediawiki credentials to log into the wiki.</td><td></td></tr>
<tr><td>2</td><td></td><td>The system checks that the user and password are correct.</td></tr>
<tr><td>3</td><td></td><td>The system sends a request to the Latch server to check the status of the digital latch. The server sends a response indicating if the state is ON/OFF.</td></tr>
<tr><td>3.1.2</td><td></td><td>The system checks if there is a 2FA in the latch.</td></tr>
<tr><td>4</td><td></td><td>The system sends a 2FA token..</td></tr>
<tr><td>4.1</td><td>The user introduces the 2FA token.</td><td></td></tr>
<tr><td>4.2</td><td></td><td>The system checks that the tokens match.</td></tr>
<tr><td>4.3</td><td>The user completes the login correctly.</td><td></td></tr>
</table>
</td></tr>
<tr><td>Alternative flow [A3.1.1]</td><td>The user can't get access because the digital latch is closed and receives a pop up notification in the mobile phone app alerting about a fraudulent access.</td></tr>
<tr><td>Alternative flow [A3.1.3]</td><td>The user logs in correctly because the digital latch is open an there is no 2FA.</td></tr>
<tr><td>Alternative flow [A3.2.5]</td><td>A message is shown to the user saying that the 2FA token is not valid and it is necesary to generate a new token and send it again through the Mediawiki form.</td></tr>
</table>

Pair account

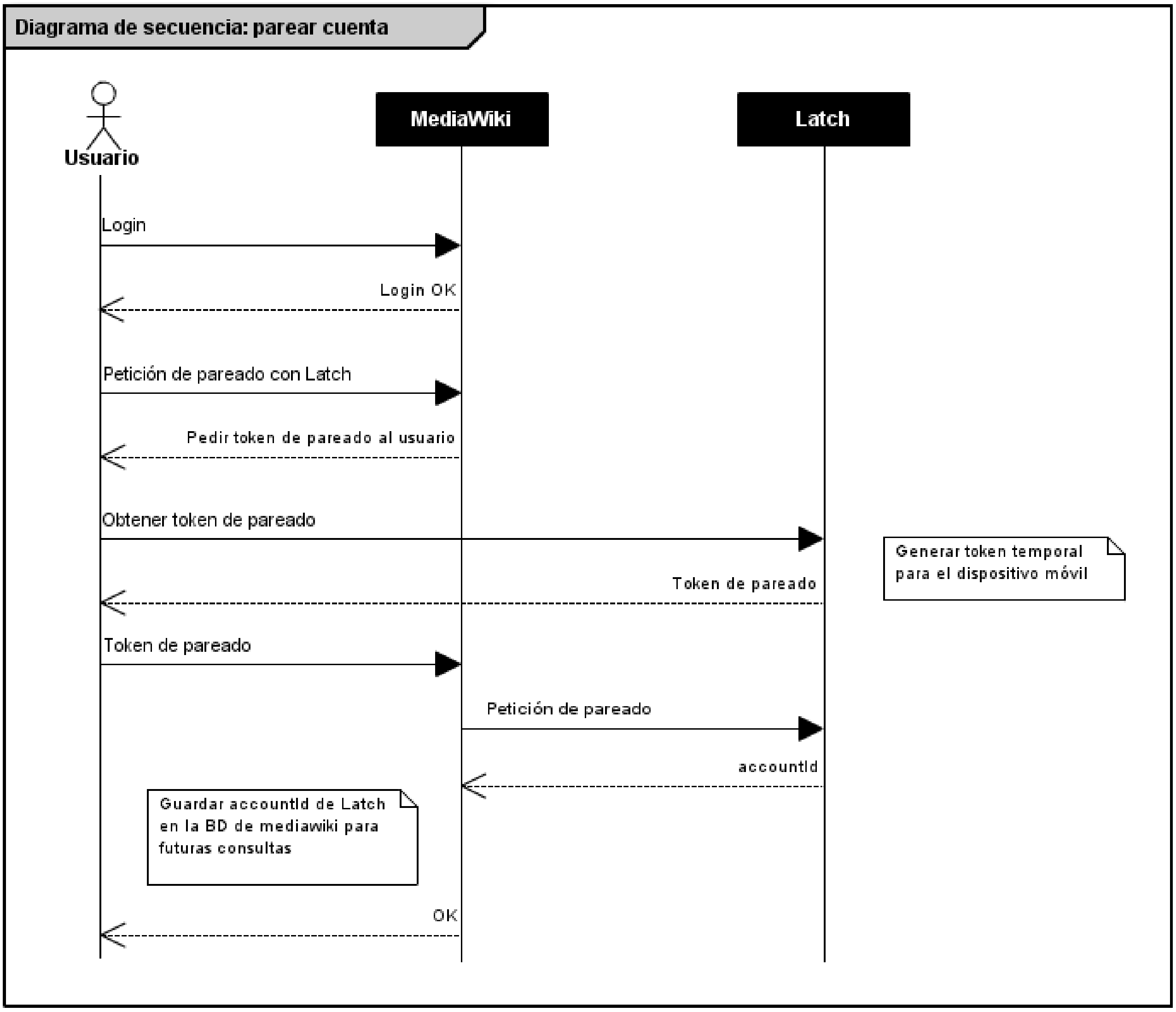


Diagrama de secuencia: parear cuenta
Usuario
MediaWiki
Latch
Login
Login OK
Petición de pareado con Latch
Pedir token de pareado al usuario
Obtener token de pareado
Generar token temporal para el dispositivo móvil
Token de pareado
Token de pareado
Petición de pareado
accountId
Guardar accountId de Latch en la BD de mediawiki para futuras consultas
OK

<table>
<tr><th colspan="2">Account pairing</th></tr>
<tr><td>Actor</td><td>Final user</td></tr>
<tr><td>Description</td><td>The final user has access to the pairing option using the preferences menu inside the Mediawiki account.</td></tr>
<tr><td>Preconditions</td><td>The user must be logged into the Mediawiki account.
The user must have installed the Latch app in his/hers mobile phone in order to be able to generate an OTP code and send it trough the Mediawiki account to pair the service with Latch,</td></tr>
<tr><td>Post-conditions</td><td>The Latch account id is saved into the Mediawiki database.</td></tr>
<tr><td>Event flow</td><td>
<table>
<tr><th></th><th>User input</th><th>System response</th></tr>
<tr><td>1</td><td>The user logs into Mediawiki.</td><td></td></tr>
<tr><td>2</td><td></td><td>The system checks that the credentials are correct.</td></tr>
<tr><td>3</td><td>The user access the section "user preferences".</td><td></td></tr>
<tr><td>4</td><td></td><td>The system checks that the Mediawiki user doesn't have a Latch account id and therefore the account is not paired, then the form with the pairing options is shwon.</td></tr>
<tr><td>5</td><td>The user requests an OTP trough the app in the mobile phone. Receives the OTP in the phone and sends the OTP using the "pair" button in the form.</td><td></td></tr>
<tr><td>6</td><td></td><td>The system validates that the OTP is correct and is not out of date (OTP's have a timeout of 60 seconds) To check the timeout the Latch server is used. [A6]</td></tr>
<tr><td>7</td><td>A message saying that the account was paired is shown. The user preferences form shows the options to unpair the account.</td><td></td></tr>
</table>
</td></tr>
<tr><td>Alternative flow [A6]</td><td>If the OTP is not valid because it was missespelled, is empty or is out of date a message is shown to the user asking for a new OTP.</td></tr>
</table>

Unpair account

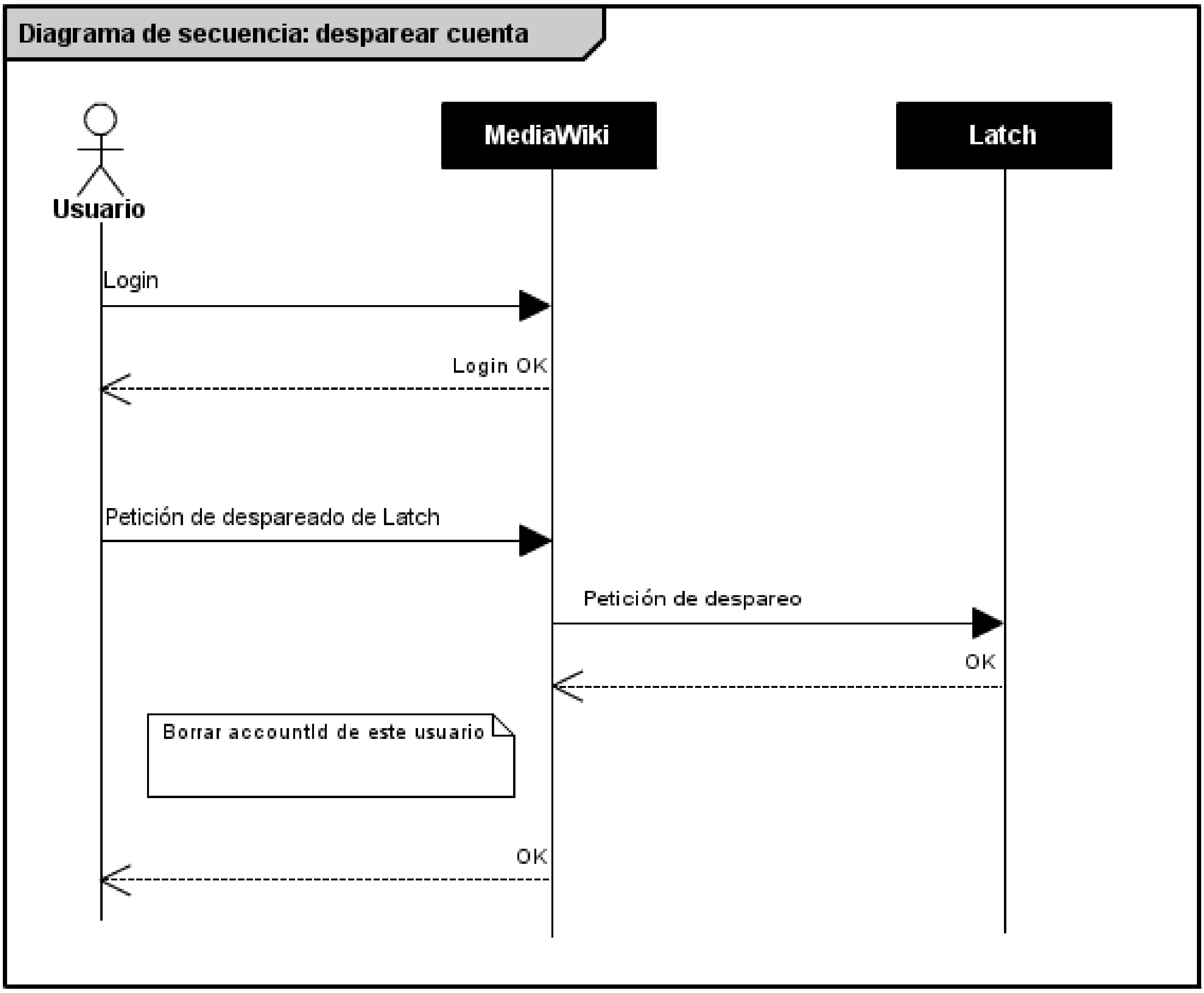


Diagrama de secuencia: desparear cuenta
Usuario
MediaWiki
Latch
Login
Login OK
Petición de despareado de Latch
Petición de despareo
OK
Borrar accountId de este usuario
OK

<table>
<tr><th colspan="2">Account unpairing</th></tr>
<tr><td>Actor</td><td>Final user</td></tr>
<tr><td>Description</td><td>The user logs into Mediawiki correctly and access the "user preferences" menu.
The user clicks the unpair account button.</td></tr>
<tr><td>Preconditions</td><td>The user is logged into his/hers Mediawiki account.</td></tr>
<tr><td>Post-conditions</td><td>The Latch account id is deleted from the Mediawiki database.</td></tr>
<tr><td>Event flow</td><td>
<table>
<tr><th></th><th>User input</th><th>System response</th></tr>
<tr><td>1</td><td>The user logs into Mediawiki.</td><td></td></tr>
<tr><td>2</td><td></td><td>The system checks that the credentials are correct.</td></tr>
<tr><td>3</td><td>The user access the section "user preferences".</td><td></td></tr>
<tr><td>4</td><td></td><td>The system checks that the Mediawiki user has a Latch account id meaning that his/hers account is paired with Latch, and shows the form with the unpairing options.</td></tr>
<tr><td>5</td><td>The user clicks the "unpair" button.</td><td></td></tr>
<tr><td>6</td><td></td><td>The system sends an unpair request to the Latch server.</td></tr>
<tr><td>7</td><td>A message is shown to the user indicating that his/hers account have been unpaired correctly.
The user preferences form shows now the pairing options.</td><td></td></tr>
</table>
</td></tr>
</table>

2 Installation guide

To make the Latch plugin for MediaWiki work correctly in a GNU/Linux system the following requeriments are recomended:

For the wiki administrator:

- Apache HTTP Server 2.4.10 (or higher): is in charge of managing the requests and responses.
- PHP 5.3.10 (or higher).
- Database management system: in this project the DBMS used is MySQL, but Mediawiki is able to work with PostgreSQL, Microsoft SQL Server, SQLite and Oracle database systems.
- Mediawiki 1.23.8 (or higher): is the platform for which the 2FA plugin was developed.
- Source code of the extension: is available in the following repository: *https://github.com/pauloba/latch-plugin-mediawiki*

For the final user:

- Web browser: during the development of this project the browser used was Mozilla 34.0 for GNU/Linux.
- Latch App: in the proyect the app version used was 1.4.2 for Android, it is used to control the digital latch that restricts or permits the access to the Mediawiki account.

The user must have an account in the wiki, which is the account that will be protected with the digital latch.

2.1 Administrator guide

The following section describes the steps that the wiki administrator should follow for the instalation of the Latch plugin.

2.1.1 Manual installation

In the following section it is described the manual proccess that should be followed to install the extension in GNU/Linux systems, it is possible to do this proccess in an automatic way that it's described in the section 1.1.2 of this document.

The first sted is to download the source code that is available in the following Github repository **https://github.com/pauloba/latch-plugin-mediawiki**

The system administrator should create a free account in the developer area of the Eleven Paths webpage, using this URL: **https://latch.elevenpaths.com**

Nuestro sitio utiliza cookies. Algunas son esenciales para que el sitio funcione; otras nos ayudan a mejorar la satisfacción del usuario. Al utilizar este sitio, consientes el uso de estas cookies. Para obtener más información acerca de las cookies y cómo deshabilitarlas, lee nuestra política de cookies.

Ilustration 1: Latch webpage screenshot

Once the source code has been downloaded and the account in the developer are has been created, the next step is to copy the files in the directory where Mediawiki is installed.

It is necesary to create a directory named Latch in the following path:

/usr/share/mediawiki/extensions

The next step is to copy in the directory **/extensions** the following files that have the logic of the plugin: **install.txt, LatchAccount.php, dbHelper.php, LatchController.php, LatchConfig.php**

Then the file **LatchExtension.txt** that contains the documentation of the plugin must be copied under the directory **/usr/share/mediawiki/docs**

To install the Latch SDK for PHP is needed to create a directory with the name PHP_SDK under the local path of the plugin **/usr/share/mediawiki/Latch** and copy there the files **Latch.php, LatchResponse.php, Error.php**

The next step is to create the directory **i18n** in the local route of the plugin **usr/share/mediawiki/extensions/Latch** and copy there the internationalization files to support the translation of the plugin into Basque, Catalan, English, Polish, Spanish and Turkish: **ca.json,en.json,es.json,eu.json,gl.json,pl.json,tr.json**

For the plugin to work correctly it is needed to append at the end of the file LocalSettings.php that it's located in **/usr/share/mediawiki/** the following lines:

```
require_once '/usr/share/mediawiki/extensions/Latch/LatchController.php';
require_once '/usr/share/mediawiki/extensions/Latch/LatchAccount.php';
require_once '/usr/share/mediawiki/extensions/Latch/dbHelper.php';
require_once '/usr/share/mediawiki/extensions/Latch/LatchConfig.php';
require_once '/usr/share/mediawiki/extensions/Latch/PHP_SDK/Latch.php';
require_once '/usr/share/mediawiki/extensions/Latch/PHP_SDK/LatchResponse.php';
require_once '/usr/share/mediawiki/extensions/Latch/PHP_SDK/Error.php';
```

The next sted is to create the latch table and it's index in local Mediawiki database , for this step some data is needed, this data is registered in the Database section of the file **LocalSettings.php:**

```
 ## Database settings
    $wgDBtype = "MySQL";
    $wgDBserver = "YourServerName";
    $wgDBname = "YourDataBaseName";
    $wgDBuser = "userNameForMySQL";
    $wgDBpassword = "passwordForMySQL";
```

To access MySQL from a terminal type the following commands in a terminal:

```
mysql -u root -p
use $wgDBname;
CREATE TABLE latch ( mw_user_id INT NOT NULL, account_id VARCHAR(256) );
CREATE INDEX mw_user_id ON latch(mw_user_id);
```

The last step to finish the instalation, is to configure the application identificator and the secret in the file `LatchConfig.php` that is located under the local route of the plugin `/usr/share/mediawiki/extensions/Latch`

This two parameters can be consulted using the Latch developer account through the Latch webpage, the section 1.1.2.1 of this document explains this proccess with more level of detail.

2.1.2 Script installation

This section details the 2FA plugin installation proccess using a script provided in the repository valid for GNU/Linux operative systems.

The first step is to download the source code that is available in the Github repository in this URL: *https://github.com/pauloba/latch-plugin-mediawiki*

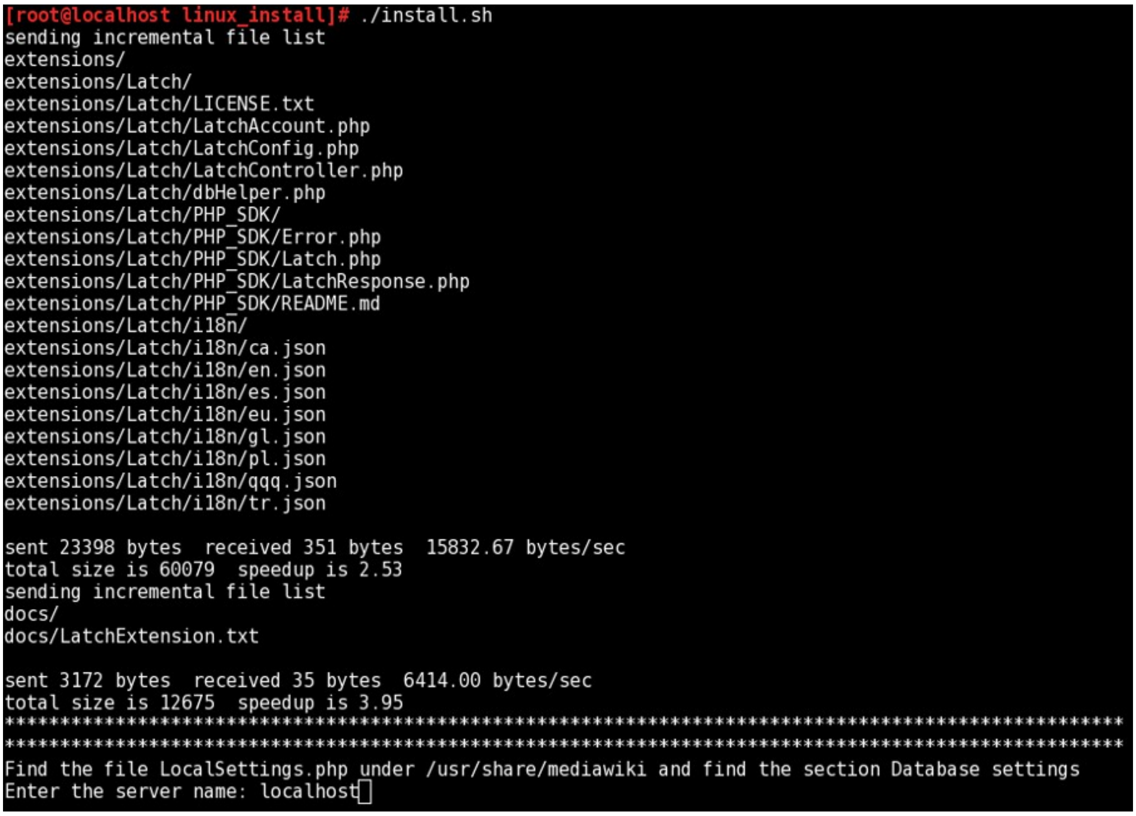
For Mediawiki installations using a MySQL database it is possible to authomatically install the plugin using the script `install.sh` that is listed under the directory linux_install.

In order to make the script work correctly it is necesary to have `rsync` installed in the system, the next step is to give read, writhe and execution permissions (rwx) to the script. You can do this from a terminal, logged as root user with the following command `chmod 777 install.sh`

It is useful to find the file `LocalSettings.php`, located under `/usr/share/mediawiki/LocalSettings.php` and find the section `Database settings.`

The next step is to execute the script and write the data that is requested during the procces, this data is written in the section `#Database settings` of the file `LocalSettings.php` that was mentioned in the paragraph above.

The following pages show four screenshots showing the proccess described above:

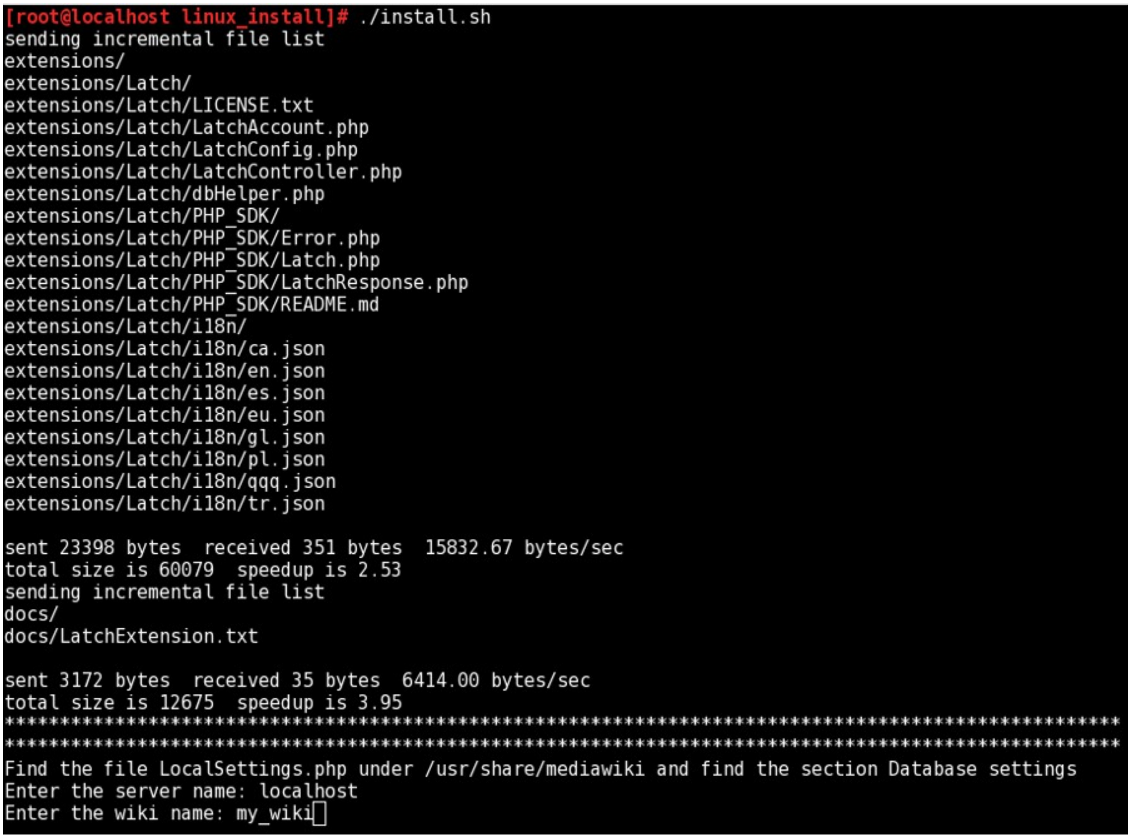


```
[root@localhost linux_install]# ./install.sh
sending incremental file list
extensions/
extensions/Latch/
extensions/Latch/LICENSE.txt
extensions/Latch/LatchAccount.php
extensions/Latch/LatchConfig.php
extensions/Latch/LatchController.php
extensions/Latch/dbHelper.php
extensions/Latch/PHP_SDK/
extensions/Latch/PHP_SDK/Error.php
extensions/Latch/PHP_SDK/Latch.php
extensions/Latch/PHP_SDK/LatchResponse.php
extensions/Latch/PHP_SDK/README.md
extensions/Latch/i18n/
extensions/Latch/i18n/ca.json
extensions/Latch/i18n/en.json
extensions/Latch/i18n/es.json
extensions/Latch/i18n/eu.json
extensions/Latch/i18n/gl.json
extensions/Latch/i18n/pl.json
extensions/Latch/i18n/qqq.json
extensions/Latch/i18n/tr.json

sent 23398 bytes  received 351 bytes  15832.67 bytes/sec
total size is 60079  speedup is 2.53
sending incremental file list
docs/
docs/LatchExtension.txt

sent 3172 bytes  received 35 bytes  6414.00 bytes/sec
total size is 12675  speedup is 3.95
****************************************************************************************************
****************************************************************************************************
Find the file LocalSettings.php under /usr/share/mediawiki and find the section Database settings
Enter the server name: localhost
```

Ilustration 2: Execution of the installation script

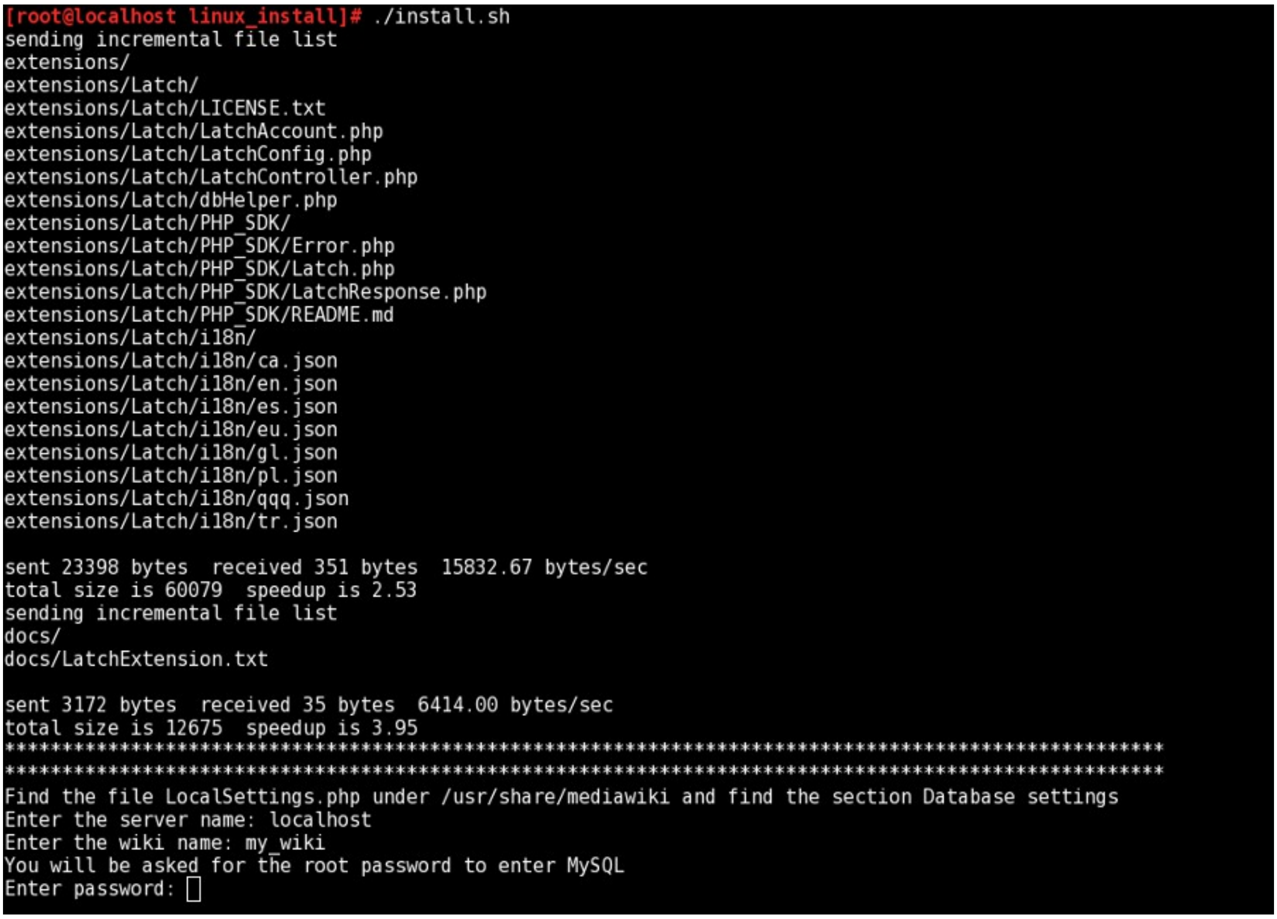


```
[root@localhost linux_install]# ./install.sh
sending incremental file list
extensions/
extensions/Latch/
extensions/Latch/LICENSE.txt
extensions/Latch/LatchAccount.php
extensions/Latch/LatchConfig.php
extensions/Latch/LatchController.php
extensions/Latch/dbHelper.php
extensions/Latch/PHP_SDK/
extensions/Latch/PHP_SDK/Error.php
extensions/Latch/PHP_SDK/Latch.php
extensions/Latch/PHP_SDK/LatchResponse.php
extensions/Latch/PHP_SDK/README.md
extensions/Latch/i18n/
extensions/Latch/i18n/ca.json
extensions/Latch/i18n/en.json
extensions/Latch/i18n/es.json
extensions/Latch/i18n/eu.json
extensions/Latch/i18n/gl.json
extensions/Latch/i18n/pl.json
extensions/Latch/i18n/qqq.json
extensions/Latch/i18n/tr.json

sent 23398 bytes  received 351 bytes  15832.67 bytes/sec
total size is 60079  speedup is 2.53
sending incremental file list
docs/
docs/LatchExtension.txt

sent 3172 bytes  received 35 bytes  6414.00 bytes/sec
total size is 12675  speedup is 3.95
****************************************************************************************************
****************************************************************************************************
Find the file LocalSettings.php under /usr/share/mediawiki and find the section Database settings
Enter the server name: localhost
Enter the wiki name: my_wiki
```

Ilustration 3: Necessary data to complete the installation

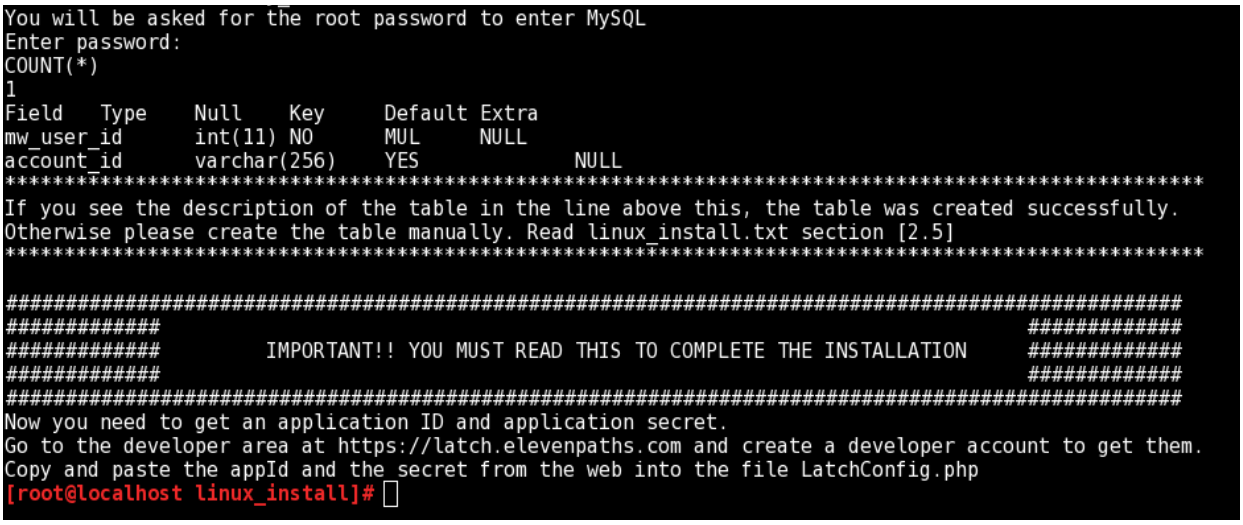


```
[root@localhost linux_install]# ./install.sh
sending incremental file list
extensions/
extensions/Latch/
extensions/Latch/LICENSE.txt
extensions/Latch/LatchAccount.php
extensions/Latch/LatchConfig.php
extensions/Latch/LatchController.php
extensions/Latch/dbHelper.php
extensions/Latch/PHP_SDK/
extensions/Latch/PHP_SDK/Error.php
extensions/Latch/PHP_SDK/Latch.php
extensions/Latch/PHP_SDK/LatchResponse.php
extensions/Latch/PHP_SDK/README.md
extensions/Latch/i18n/
extensions/Latch/i18n/ca.json
extensions/Latch/i18n/en.json
extensions/Latch/i18n/es.json
extensions/Latch/i18n/eu.json
extensions/Latch/i18n/gl.json
extensions/Latch/i18n/pl.json
extensions/Latch/i18n/qqq.json
extensions/Latch/i18n/tr.json

sent 23398 bytes  received 351 bytes  15832.67 bytes/sec
total size is 60079  speedup is 2.53
sending incremental file list
docs/
docs/LatchExtension.txt

sent 3172 bytes  received 35 bytes  6414.00 bytes/sec
total size is 12675  speedup is 3.95
*****************************************************************************************************
*****************************************************************************************************
Find the file LocalSettings.php under /usr/share/mediawiki and find the section Database settings
Enter the server name: localhost
Enter the wiki name: my_wiki
You will be asked for the root password to enter MySQL
Enter password: 
```

Ilustration 4: Last step before finishing the installation



```
You will be asked for the root password to enter MySQL
Enter password:
COUNT(*)
1
Field   Type    Null    Key     Default Extra
mw_user_id      int(11) NO      MUL     NULL
account_id      varchar(256)    YES             NULL
****************************************************************************************************
If you see the description of the table in the line above this, the table was created successfully.
Otherwise please create the table manually. Read linux_install.txt section [2.5]
****************************************************************************************************

###################################################################################################
#############                                                                         #############
#############         IMPORTANT!! YOU MUST READ THIS TO COMPLETE THE INSTALLATION     #############
#############                                                                         #############
###################################################################################################
Now you need to get an application ID and application secret.
Go to the developer area at https://latch.elevenpaths.com and create a developer account to get them.
Copy and paste the appId and the secret from the web into the file LatchConfig.php
[root@localhost linux_install]# 
```

Ilustration 5: Plugin succesfully installed

In the case that the Mediawiki database is other different from MySQL, it is possible to execute the installation script anyway, but taking in account that it is necesary to create a table named latch in the database in a manual way.

The SQL syntax to create the latch table and it's index is as follows :

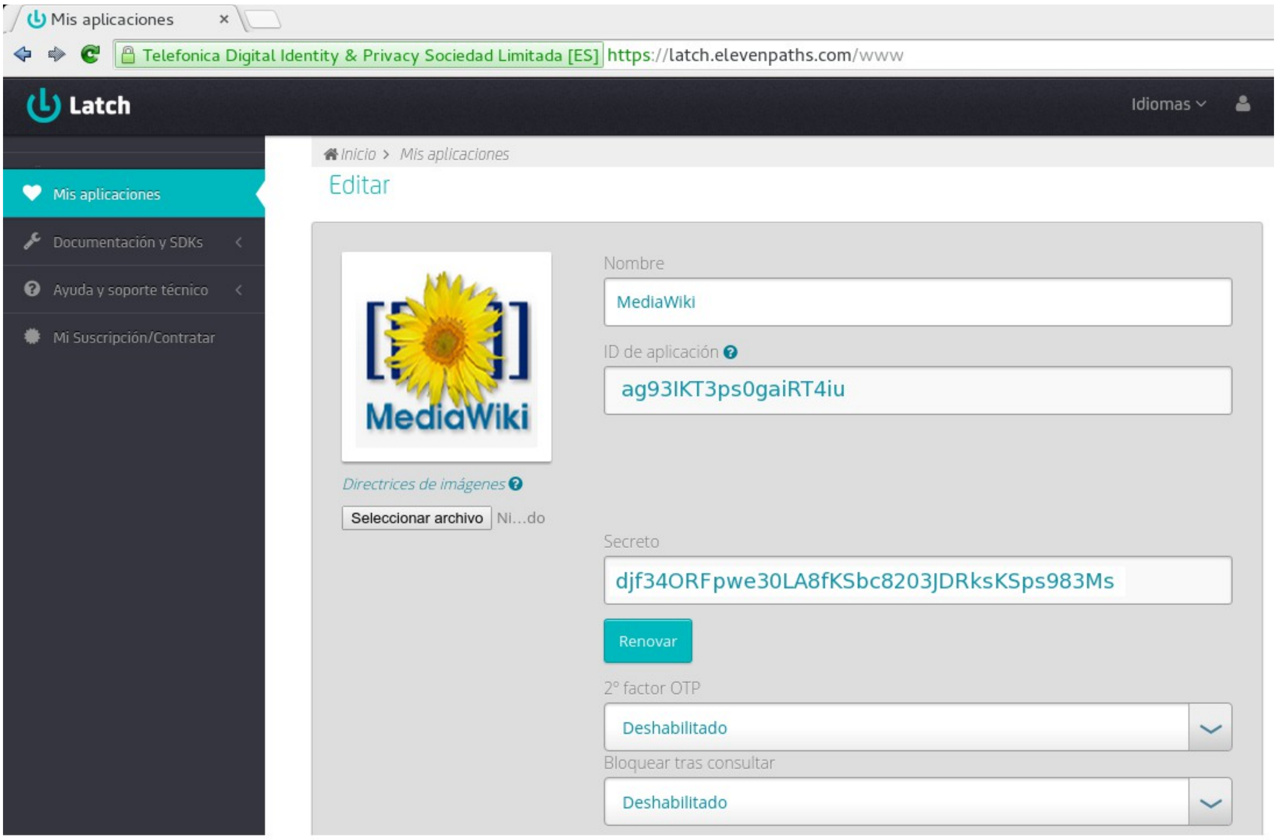
```
CREATE TABLE latch ( mw_user_id INT NOT NULL, account_id VARCHAR(256) );
CREATE INDEX mw_user_id ON latch(mw_user_id);
```

The document `linux_install.txt` that it's located in the directory `linux_install` details all the proccess step by step.

2.1.2.1 Account configuration: appId and secret

Once the execution of the installation script is finished, it is neccesary to access to the Latch deveoper account in the Latch webpage.

Once in the webpage, the next step is to create a new application and give it a name, in this case the name of the application will be Mediawiki.



Editar

Nombre: MediaWiki

ID de aplicación: ag93IKT3ps0gaiRT4iu

Secreto: djf34ORFpwe30LA8fKSbc8203JDRksKSps983Ms

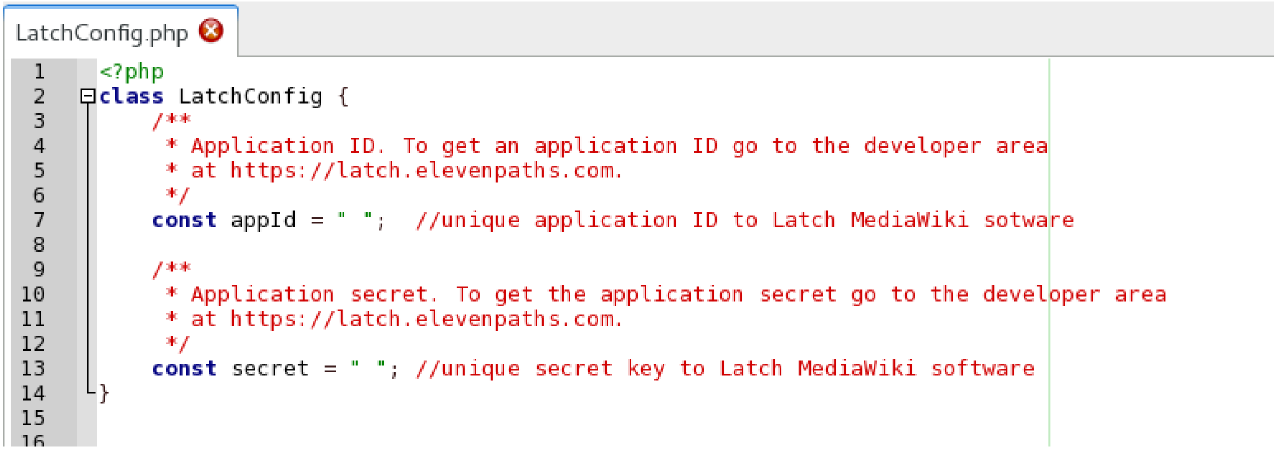
2° factor OTP: Deshabilitado

Bloquear tras consultar: Deshabilitado

Ilustration 6: Aplication creation through the Eleven Paths website, in the developer area

In order to configure the plugin it is needed to copy the appId and the secret from the webpage, as it is shown in the picture above, then this data should be pasted into the file **`LatchConfig.php`** located under **`/usr/share/mediawiki/extensions/Latch/LatchConfig.php`**

Latch has a free version (Latch Community) that permits up to 50 users latched with the same appId and secret, in case you need to latch more than 50 users you can pay for one of the plans offered in the Latch webpage to have more users.



LatchConfig.php

```php
<?php
class LatchConfig {
	/**
	 * Application ID. To get an application ID go to the developer area
	 * at https://latch.elevenpaths.com.
	 */
	const appId = " ";  //unique application ID to Latch MediaWiki sotware

	/**
	 * Application secret. To get the application secret go to the developer area
	 * at https://latch.elevenpaths.com.
	 */
	const secret = " "; //unique secret key to Latch MediaWiki software
}
```

Ilustration 7: Screenshot of the configuration file LatchConfig.php

Once all this steps are done the plugin it's installed in Mediawiki and ready for the users that have an account in the wiki to use it and secure their accounts.

3 Use guide

The following secion describes the instructions for the final users to activate the digital latch in their Mediawiki account.

3.1 User manual

The final user will need the Latch application for smatphones, that can be downloaded for Android, iOS and Windows Phone devices.

The final user should have an account that can be created though the Latch webpage, in the same way that was described in the section 1.1.1 of this manual.

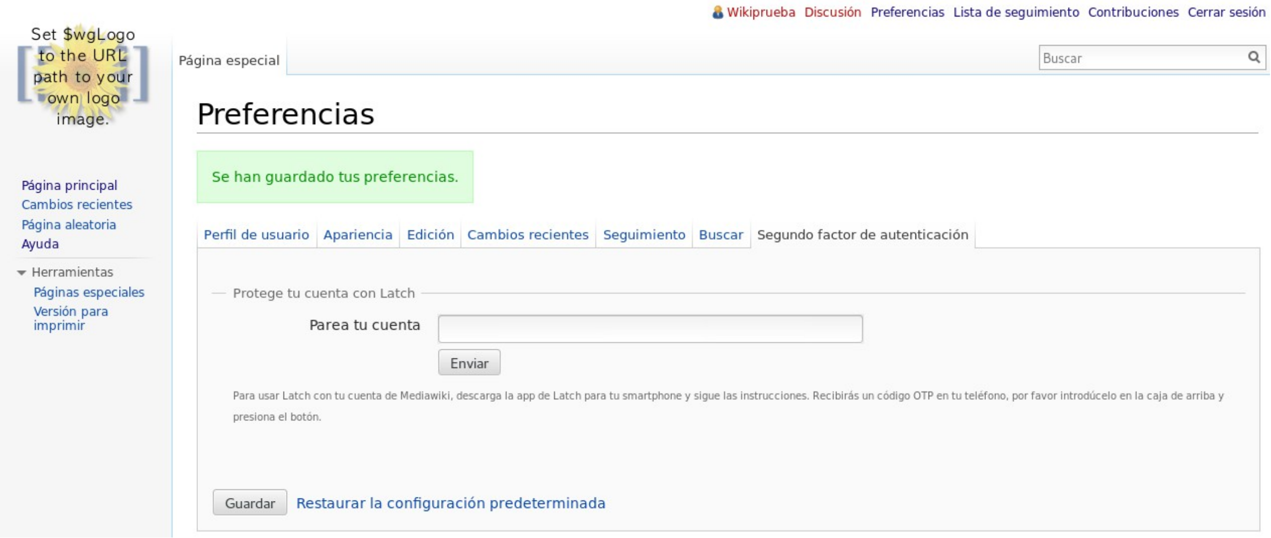
To have access to the Mediawiki wiki it is needed a web browser, andto activate a digital latch the user should have an account in the wiki too.

3.1.1 Account pairing

The first step to use the extension is that the final user logs into his/hers account using the webpage where the wiki it's located. The user should log in in the same as he/she does normally.

Once in the user account, the user should access to the option **`"user preferences"`** where he/she will find a tab with the title **`"second factor authentication"`**.

Using this tab the user can pair and unpair the Mediawiki account with Latch in order to use the digital latch from the mobile phone app.



Preferencias

Se han guardado tus preferencias.

Protege tu cuenta con Latch

Parea tu cuenta

Para usar Latch con tu cuenta de Mediawiki, descarga la app de Latch para tu smartphone y sigue las instrucciones. Recibirás un código OTP en tu teléfono, por favor introdúcelo en la caja de arriba y presiona el botón.

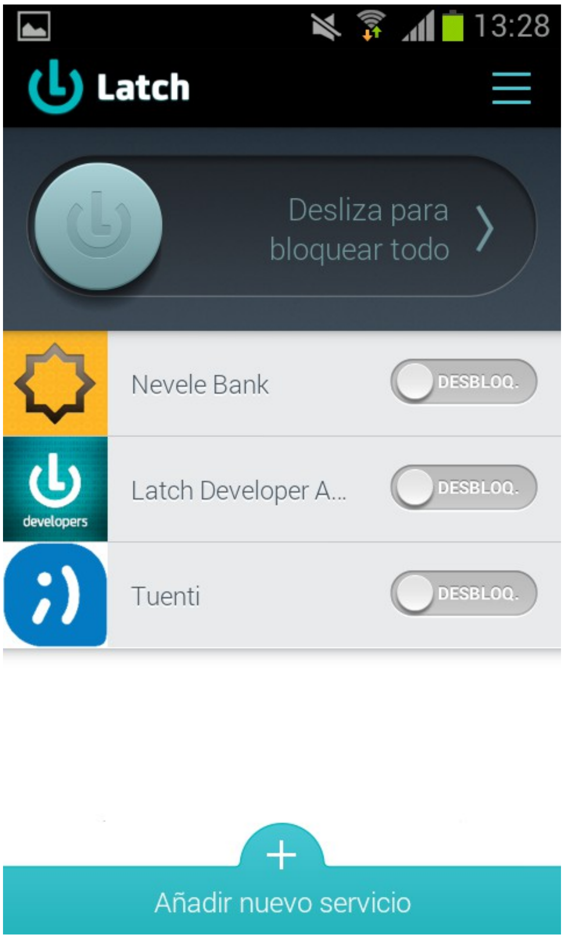
Ilustration 8: User preferences, once logged into the Mediawiki account

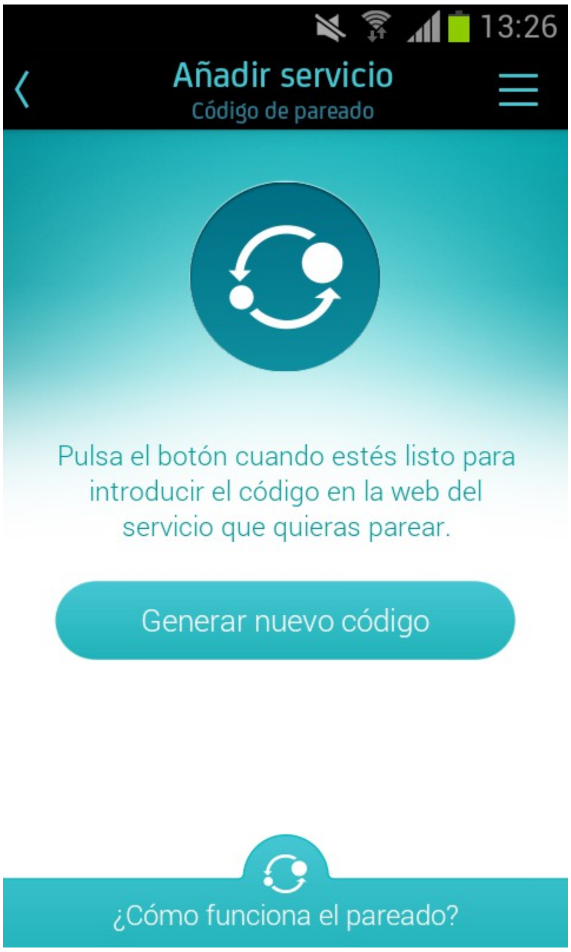
3.1.2 Getting and sending the OTP code

To do the account pairing proccess, the user must log into the Latch account using the mobile phone application.

Once logged the user can see a wallet with a list and all the applications and services that the user has paired with his/hers Latch account witch.

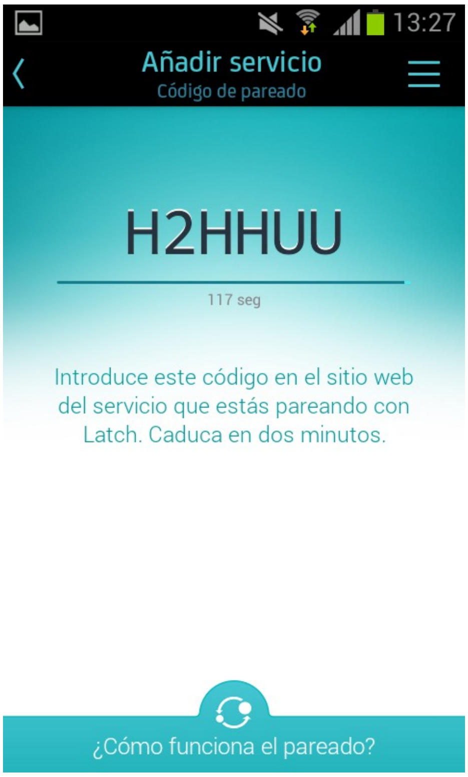
The next step is to click in the option **`"add new service"`**, then in the next screen, the user should click in the option **`"generate a new code"`**, after this, and OTP code will be received in the mobile app, this code remains active for 60 seconds, this code must be written in the wiki under : **`"preferences" >> "second factor authentication" >> "pair your account"`**



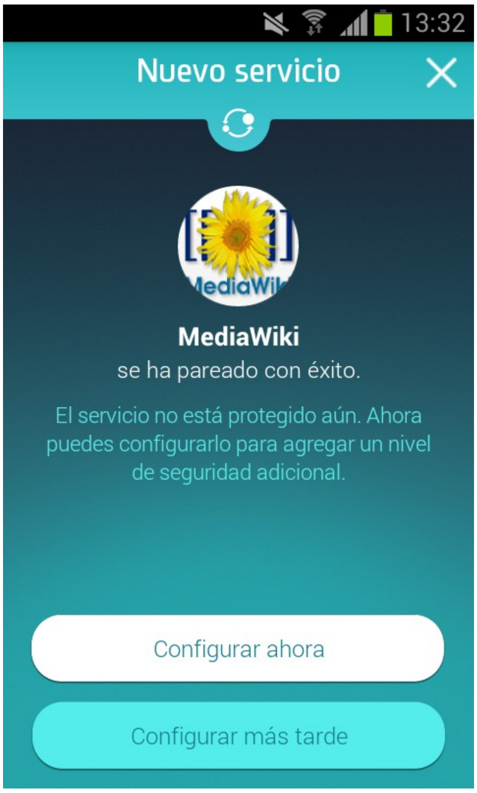


Pulsa el botón cuando estés listo para introducir el código en la web del servicio que quieras parear.

Once the OTP is written in the wiki, if everything goes well, the service will be paired, and the user will receive a notification in the mobile phone app, and then the wiki will show a different view that offers the option to unpair the account.



Introduce este código en el sitio web del servicio que estás pareando con Latch. Caduca en dos minutos.



MediaWiki se ha pareado con éxito.

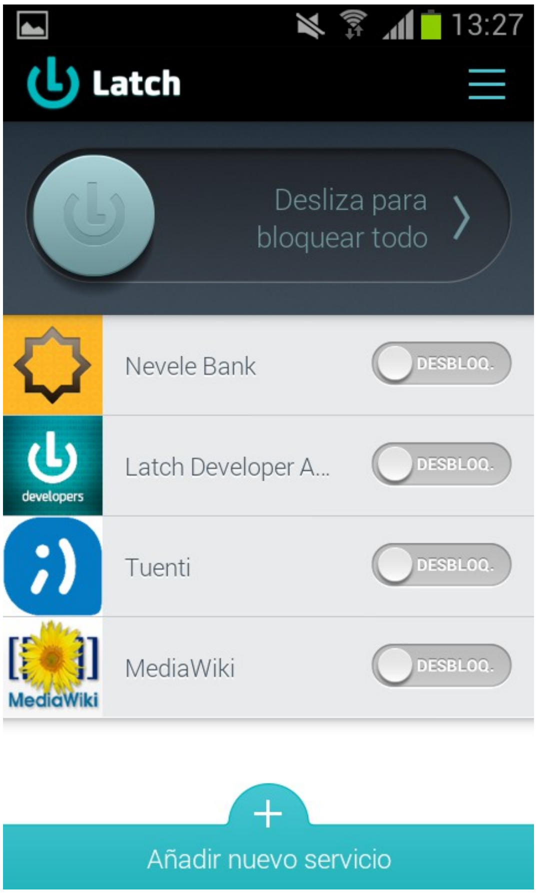
El servicio no está protegido aún. Ahora puedes configurarlo para agregar un nivel de seguridad adicional.

3.1.3 Digital latches management trough the mobile phone app

Now that the account is paired, Mediawiki will be shown in the list of applications available in the app wallet.

Clicking over the application the user can have access to the configuration panel where he/she can create alerts by time for the digital latch to open or close at the times schedules by the user.

The basic functionality to close the latch, can be activated clicking over the option "block" in the Mediawiki icon shown in the wallet of applications.

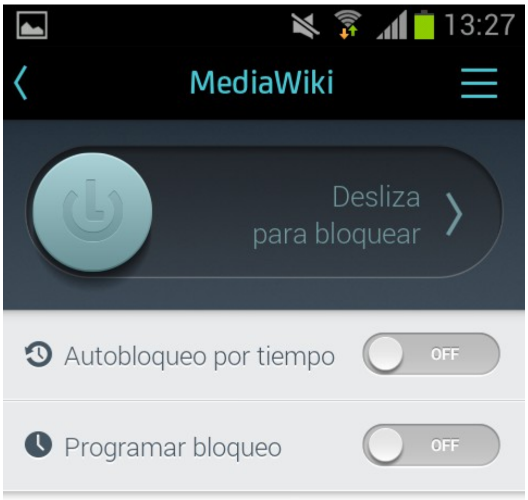


Nevele Bank DESBLOQ.

Latch Developer A... DESBLOQ.

Tuenti DESBLOQ.

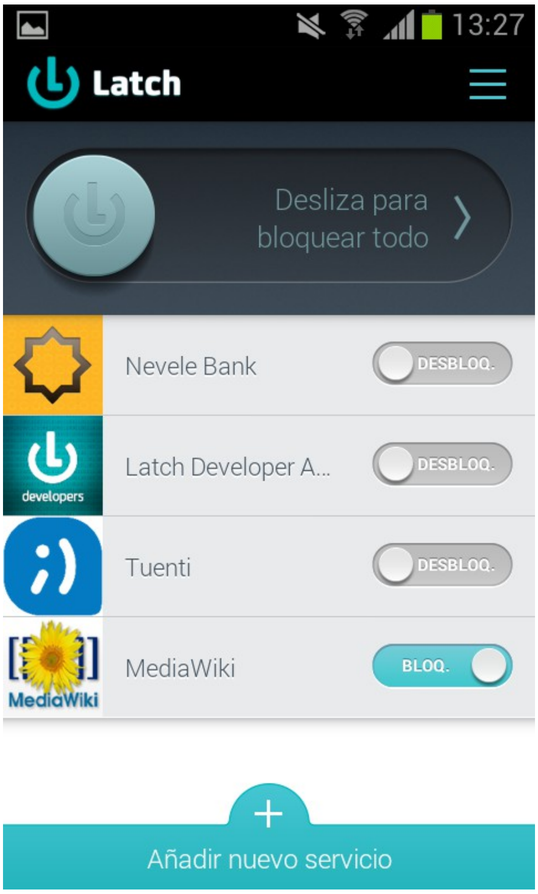
MediaWiki DESBLOQ.

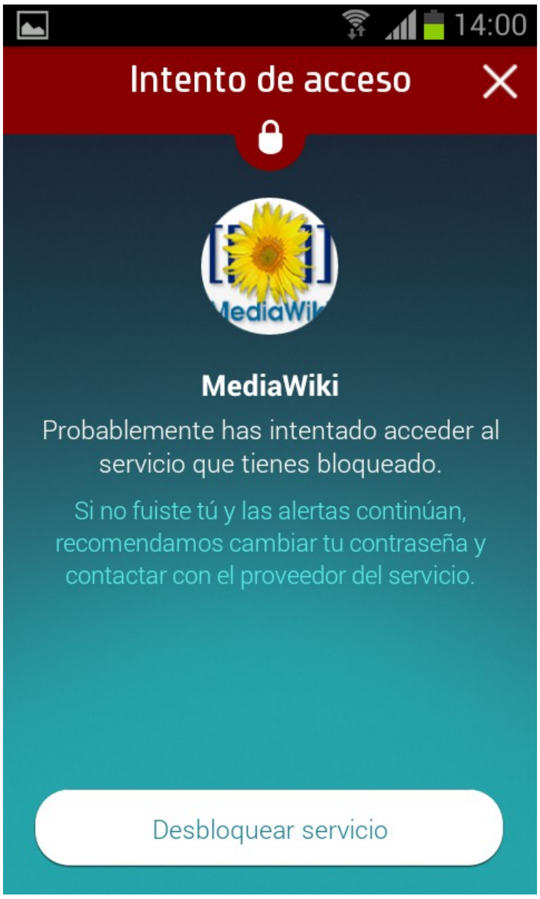


Autobloqueo por tiempo OFF

Programar bloqueo OFF

When Mediawiki has the latch bloqued, if anyone tries to get access to the wiki trought the webpage with the correct credentials, a notification will be shown to the real user in the mobile phone telling about the fraudulent access.





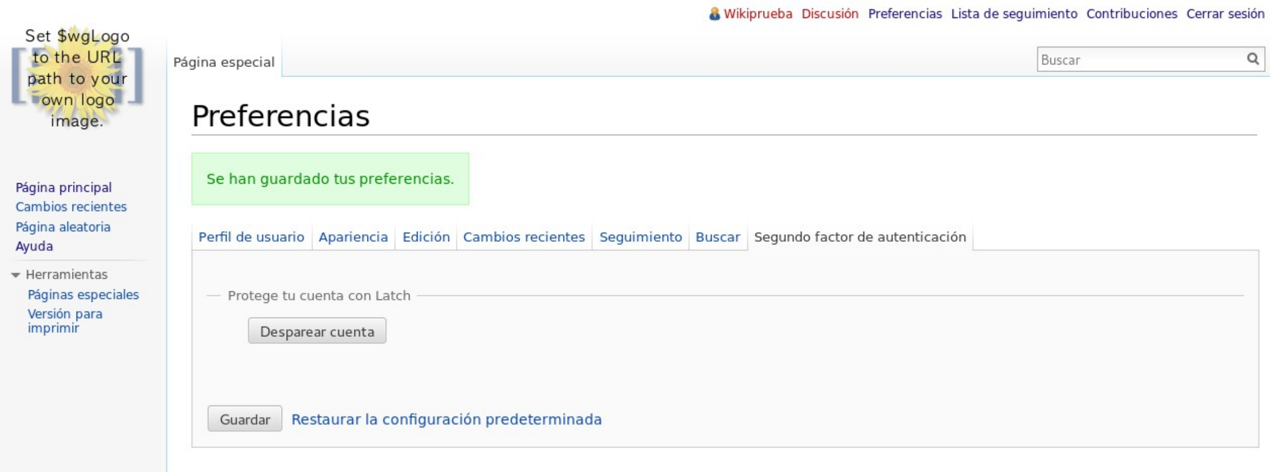
Probablemente has intentado acceder al servicio que tienes bloqueado.

Si no fuiste tú y las alertas continúan, recomendamos cambiar tu contraseña y contactar con el proveedor del servicio.

3.1.4 Account unpair

If the user wishes to stop using the digital latch with Mediawiki, he/she can unpair the Mediawiki account in a similar way to the pairing proccess.

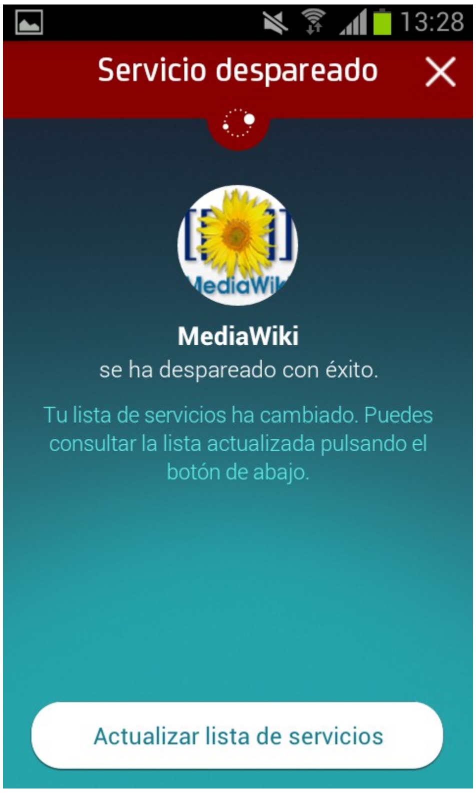
The user has to log into the wiki account, then go to the option `"preferences"` where he/she will be find a button with the text `"unpair account"`, by clicking thie button, the account will be unpaired, a notification will be shown in the mobile phone app, and once the list of applications in the wallet is refreshed the Mediawiki service will no longer be shown in the wallet list of available applications.



Preferencias

Se han guardado tus preferencias.

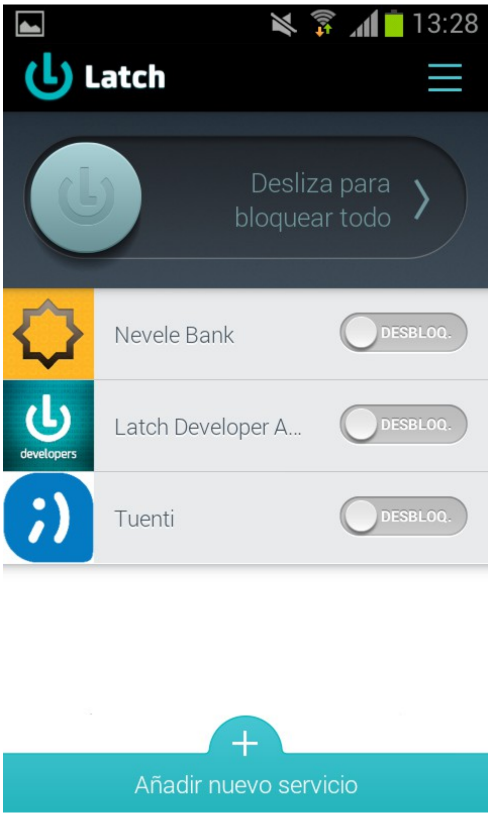
Protege tu cuenta con Latch



Servicio despareado

MediaWiki se ha despareado con éxito.

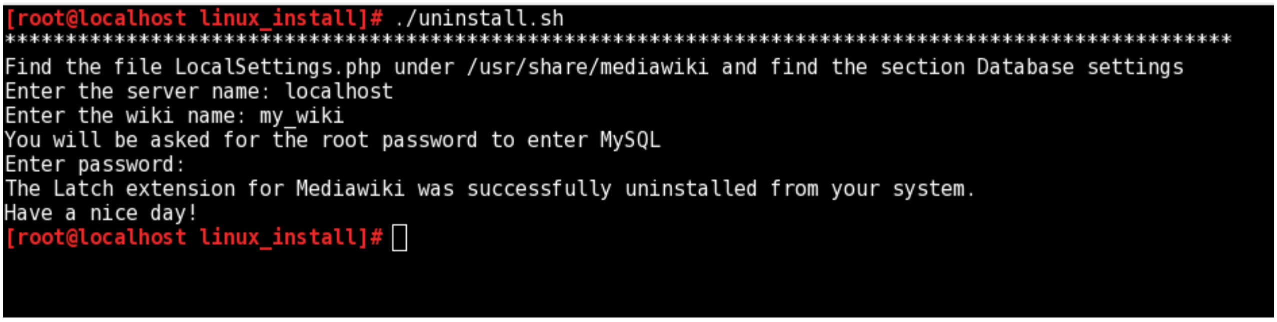
Tu lista de servicios ha cambiado. Puedes consultar la lista actualizada pulsando el botón de abajo.



3.2 Uninstalling the extension

3.2.1 Authomatical uninstall

To uninstall the extension in GNU/Linux systems is as simple as executing the script **`uninstall.sh`**



```
[root@localhost linux_install]# ./uninstall.sh
****************************************************************************************************
Find the file LocalSettings.php under /usr/share/mediawiki and find the section Database settings
Enter the server name: localhost
Enter the wiki name: my_wiki
You will be asked for the root password to enter MySQL
Enter password:
The Latch extension for Mediawiki was successfully uninstalled from your system.
Have a nice day!
[root@localhost linux_install]# 
```

3.2.2 Manual uninstall

To uninstall the plugin in a manual way, the user should remove the **`require_once`** lines that were previously added to the file **`/usr/share/mediawiki/LocalSettings.php`** during the installation..

It is also needed to remove the Latch directory located under **`/usr/share/mediawiki/extensions`**

from a terminal logged as root using this command

```
rm -rf /usr/share/mediawiki/extensions/Latch
```

And the last step needed is to remove the table from the database, using the of the Mediawiki installation that is available in the file **`LocalSettings.php`** in the section **`#Database settings`**

This can be done using a terminal with the following commands:

```
mysql -u root -p
use $wgDBname;
```

And executing the order **`DROP TABLE latch;`**