

Université Cheikh Anta Diop



École Supérieure Polytechnique
Département Génie Informatique
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DIC2/TR
BASES DE DONNÉES AVANCÉES
RAPPORT DU PROJET
Pr MBACKE

DESCRIPTION

Avec la montée du nombre d'utilisateurs sur son site web, une entreprise utilisant du Wordpress décide de changer d'architecture et donc d'investir dans son infrastructure. Pour mesurer à priori l'impact de son investissement sur l'amélioration des performances, l'entreprise décide d'organiser une étude comparative entre plusieurs scenarios :

- Scenario 0 (Initial)*
- Scenario 1 (Initial + Cache)*
- Scenario 2 (Initial + base distribuée)*
- Scenario 3 (Initiale + Cache + Base distribuée)*

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- ◆ Du nombre de requêtes

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I. LES OBJECTIFS DU PROJET

L'objectif principal de ce projet est de mesurer l'impact de la mise en cache et du sharding sur les performances des applications Web en utilisant une base de données. Nous allons nous concentrer sur deux techniques : la mise en cache et le sharding, qui sont couramment utilisées pour améliorer les performances des applications Web. L'objectif de la mise en cache est de stocker temporairement les données fréquemment utilisées en mémoire pour améliorer les temps de réponse et réduire la charge sur la base de données sous-jacentes. D'un autre côté, le sharding est une technique de partitionnement des données sur plusieurs nœuds de base de données pour répartir la charge de travail et améliorer les performances globales.

Dans ce projet, nous allons mesurer l'impact de ces deux techniques sur les performances de plusieurs applications Web. Nous allons collecter des données sur les temps de réponse, la consommation de mémoire, la charge CPU et les performances globales de chaque application. Nous allons ensuite analyser ces données pour évaluer les performances des applications en utilisant la mise en cache et le sharding, par rapport à une configuration sans ces différents techniques.

II. ORGANISATION DE L'ÉQUIPE

Le groupe est constitué de 3 membres. Il s'agit de :

Ibrahima BALDE
Mouhamed Mansour GUEYE
Oumar SENE

Affectation de tâches :

scenario 0, Rapport du projet, Mesure de temps de latence des réponses ==> Ibrahima BALDE
scenario 1, Diagramme de Gantt, Mesure de temps de latence des réponses ==> Oumar SENE
scenario 2, scenario 3, Mesure de temps de latence des réponses ==> Mouhamed Mansour GUEYE

Diagramme de Gantt :

Tache	Etudiant	Duree	Date de debt	Date de fin	14/02/2023	15/02/2023	16/02/2023	17/02/2023	18/02/2023	19/02/2023	20/02/2023	
scenario 0	Ibrahima Balde	1 jours	14/02/2023	15/02/2023								
scenario 1 et diagramme de Gantt	Oumar Sene	3 jours	16/02/2023	21/02/2023								
scenario 2 3 et mesure de temps de latence	Mohamed Mansour Gueye	5 jours	22/02/2023	07/03/2023								
rapport du projet	Ibrahima Balde	2 jours	09/03/2023	13/03/2023								

Tache	Etudiant	Duree	Date de debt	Date de fin	16/02/2023	17/02/2023	18/02/2023	19/02/2023	20/02/2023	21/02/2023	22/02/2023	
scenario 0	Ibrahima Balde	1 jours	14/02/2023	15/02/2023								
scenario 1 et diagramme de Gantt	Oumar Sene	3 jours	16/02/2023	21/02/2023								
scenario 2 3 et mesure de temps de latence	Mohamed Mansour Gueye	5 jours	22/02/2023	07/03/2023								
rapport du projet	Ibrahima Balde	2 jours	09/03/2023	13/03/2023								

Tache	Etudiant	Duree	Date de debt	Date de fin	22/02/2023	23/02/2023	24/02/2023	25/02/2023	26/02/2023	27/02/2023	28/02/2023	
scenario 0	Ibrahima Balde	1 jours	14/02/2023	15/02/2023								
scenario 1 et diagramme de Gantt	Oumar Sene	3 jours	16/02/2023	21/02/2023								
scenario 2 3 et mesure de temps de latence	Mohamed Mansour Gueye	5 jours	22/02/2023	07/03/2023								
rapport du projet	Ibrahima Balde	2 jours	09/03/2023	13/03/2023								

Tache	Etudiant	Duree	Date de debt	Date de fin	01/03/2023	02/03/2023	03/03/2023	04/03/2023	05/03/2023	06/03/2023	07/03/2023	
scenario 0	Ibrahima Balde	1 jours	14/02/2023	15/02/2023								
scenario 1 et diagramme de Gantt	Oumar Sene	3 jours	16/02/2023	21/02/2023								
scenario 2 3 et mesure de temps de latence	Mohamed Mansour Gueye	5 jours	22/02/2023	07/03/2023								
rapport du projet	Ibrahima Balde	2 jours	09/03/2023	13/03/2023								

Tache	Etudiant	Duree	Date de debt	Date de fin	08/03/2023	09/03/2023	10/03/2023	11/03/2023	12/03/2023	13/03/2023	14/03/2023	
scenario 0	Ibrahima Balde	1 jours	14/02/2023	15/02/2023								
scenario 1 et diagramme de Gantt	Oumar Sene	3 jours	16/02/2023	21/02/2023								
scenario 2 3 et mesure de temps de latence	Mohamed Mansour Gueye	5 jours	22/02/2023	07/03/2023								
rapport du projet	Ibrahima Balde	2 jours	09/03/2023	13/03/2023								

Légende :

: travaux sur le projet

: jours d'examen

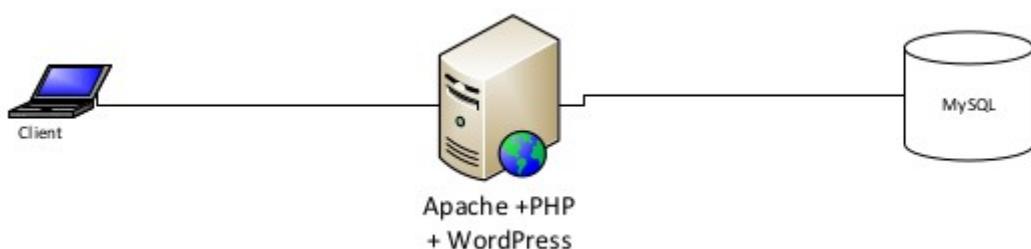
: week-end

III. PARAMÈTRES DE L'ENVIRONNEMENT MATÉRIEL DE TEST

- ✓ Machine physique Ibrahima BALDE : ubuntu 22.04 , RAM 4G , 2 processeurs , mémoire 257G.
- ✓ Machines virtuelles Mansour GUEYE : ubuntu 20.04 , RAM 4G , 2 processeurs , mémoire 40G.
- ✓ Machine virtuelle Oumar SENE : ubuntu 20.04 , RAM 4G , 2 processeurs , mémoire 40G.

IV. PARAMÈTRES DE CONFIGURATION SELON CHAQUE SCENARIO DE CHAQUE COMPOSANT DE L'ARCHITECTURE

Scenario 0 :



Installation

```
root@ibrahima:~# apt update
Atteint :1 http://sn.archive.ubuntu.com/ubuntu jammy InRelease
Réception de :2 http://sn.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Réception de :3 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Atteint :4 https://download.virtualbox.org/virtualbox/debian jammy InRelease
Réception de :5 https://dl.google.com/linux/chrome/deb stable InRelease [1811 B]
Atteint :6 https://packages.microsoft.com/repos/ms-teams stable InRelease
Réception de :7 https://packages.microsoft.com/repos/vscode stable InRelease [39 59 B]
Réception de :8 https://mega.nz/linux/repo/xUbuntu_22.04 ./ InRelease [2961 B]
Réception de :9 http://sn.archive.ubuntu.com/ubuntu jammy-backports InRelease [1 07 kB]
Réception de :10 https://dl.google.com/linux/chrome/deb stable/main amd64 Packages [1074 B]
Réception de :11 http://security.ubuntu.com/ubuntu jammy-security/main amd64 DEP -11 Metadata [41,5 kB]
Réception de :12 http://sn.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Pa ckages [898 kB]
Réception de :13 https://packages.microsoft.com/repos/vscode stable/main amd64 P ackages [350 kB]
Réception de :14 http://security.ubuntu.com/ubuntu jammy-security/universe i386 Packages [500 kB]
Réception de :15 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [678 kB]
```

```
root@ibrahima:~# apt-get install apache2 php mysql-server
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances... Fait
Lecture des informations d'état... Fait
mysql-server est déjà la version la plus récente (8.0.32-0ubuntu0.22.04.2).
Les paquets suivants ont été installés automatiquement et ne sont plus nécessair es :
  libflashrom1 libftdi1-2 libosmo-mgcp-client6 libosmo-ranap3 libosmo-sigtran5
  libosmogb12 libosmosccp0 osmo-libasn1c1
Veuillez utiliser « apt autoremove » pour les supprimer.
Les paquets supplémentaires suivants seront installés :
  apache2-bin apache2-data apache2-utils libapache2-mod-php8.1 libapr1
  libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap php php-common php8.1
  php8.1-cli php8.1-common php8.1-opcache php8.1-readline
Paquets suggérés :
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom php-pear
Les NOUVEAUX paquets suivants seront installés :
  apache2 apache2-bin apache2-data apache2-utils libapache2-mod-php8.1 libapr1
  libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap php php-common php8.1
  php8.1-cli php8.1-common php8.1-opcache php8.1-readline
0 mis à jour, 16 nouvellement installés, 0 à enlever et 95 non mis à jour.
Il est nécessaire de prendre 7046 ko dans les archives.
Après cette opération, 29,0 Mo d'espace disque supplémentaires seront utilisés.
Souhaitez-vous continuer ? [0/n]
Réception de :1 http://sn.archive.ubuntu.com/ubuntu jammy/main amd64 libapr1 amd 64 1.7.0-8build1 [107 kB]
```

```
root@ibrahima:~# cd /var/www/html/
root@ibrahima:/var/www/html# wget https://wordpress.org/latest.tar.gz
--2023-02-22 19:13:31-- https://wordpress.org/latest.tar.gz
Résolution de wordpress.org (wordpress.org)... 198.143.164.252
Connexion à wordpress.org (wordpress.org)|198.143.164.252|:443... connecté.
requête HTTP transmise, en attente de la réponse... 200 OK
Taille : 22751086 (22M) [application/octet-stream]
Enregistre : 'latest.tar.gz'

latest.tar.gz      100%[=====] 21,70M  439KB/s   ds 48s

2023-02-22 19:14:21 (459 KB/s) - 'latest.tar.gz' enregistré [22751086/22751086]

root@ibrahima:/var/www/html# tar -xzvf latest.tar.gz
wordpress/
wordpress/xmlrpc.php
wordpress/wp-blog-header.php
wordpress/readme.html
wordpress/wp-signup.php
wordpress/index.php
wordpress/wp-cron.php
wordpress/wp-config-sample.php
wordpress/wp-login.php
wordpress/wp-settings.php
wordpress/license.txt
wordpress/wp-content/
```

```
root@ibrahima:~# sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.32-0ubuntu0.22.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> CREATE DATABASE wordpress;
Query OK, 1 row affected (2,70 sec)
```

```
root@ibrahima: ~
mysql> show databases;
+-----+
| Database      |
+-----+
| information_schema |
| mysql          |
| performance_schema |
| sys            |
| wordpress      |
+-----+
5 rows in set (4,07 sec)

mysql> use wordpress;
Database changed
mysql> show tables;
Empty set (0,05 sec)
```

```
root@ibrahima: ~
mysql> SHOW VARIABLES LIKE 'validate_password%';
+-----+-----+
| Variable_name | Value |
+-----+-----+
| validate_password.check_user_name | ON    |
| validate_password.dictionary_file |       |
| validate_password.length         | 8     |
| validate_password.mixed_case_count | 1     |
| validate_password.number_count   | 1     |
| validate_password.policy         | LOW   |
| validate_password.special_char_count | 1     |
+-----+-----+
7 rows in set (0,01 sec)

mysql> CREATE USER 'wordpressuser'@'localhost' IDENTIFIED BY 'passer12';
Query OK, 0 rows affected (0,30 sec)

mysql> GRANT ALL PRIVILEGES ON wordpress.* TO 'wordpressuser'@'localhost';
Query OK, 0 rows affected (0,56 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0,19 sec)

mysql> exit
Bye
root@ibrahima:~#
```

```
root@ibrahima:~# cd /var/www/html/wordpress
root@ibrahima:/var/www/html/wordpress# sudo mv wp-config-sample.php wp-config.php
root@ibrahima:/var/www/html/wordpress# sudo nano wp-config.php
```

```
root@ibrahima:~          ×      root@ibrahima:/var/www/html/wordpress ×  ✓
GNU nano 6.2           wp-config.php

// ** Database settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define( 'DB_NAME', 'wordpress' );

/** Database username */
define( 'DB_USER', 'wordpressuser' );

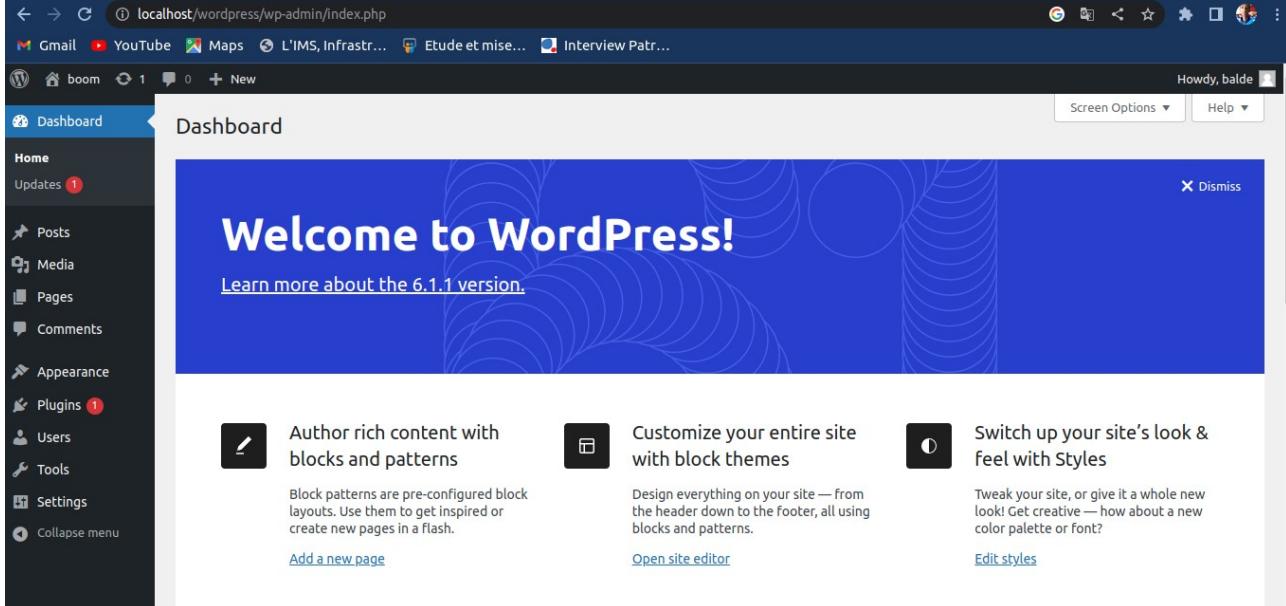
/** Database password */
define( 'DB_PASSWORD', 'passer12' );

/** Database hostname */
define( 'DB_HOST', 'localhost' );

/** Database charset to use in creating database tables. */
define( 'DB_CHARSET', 'utf8' );

/** The database collate type. Don't change this if in doubt. */
define( 'DB_COLLATE', '' );
```

```
root@ibrahima:~# php -m | grep mysql
root@ibrahima:~# sudo apt-get install php-mysql
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances... Fait
Lecture des informations d'état... Fait
Les paquets suivants ont été installés automatiquement et ne sont plus nécessaires :
  libflashrom1 libftdi1-2 libosmo-mgcp-client6 libosmo-ranap3 libosmo-sigtrans
  libosmogb12 libosmosccp0 osmo-libasn1c1
Veuillez utiliser « sudo apt autoremove » pour les supprimer.
Les paquets supplémentaires suivants seront installés :
  php8.1-mysql
Les NOUVEAUX paquets suivants seront installés :
  php-mysql php8.1-mysql
0 mis à jour, 2 nouvellement installés, 0 à enlever et 95 non mis à jour.
Il est nécessaire de prendre 132 ko dans les archives.
Après cette opération, 476 ko d'espace disque supplémentaires seront utilisés.
Souhaitez-vous continuer ? [0/n]
Réception de :1 http://sn.archive.ubuntu.com/ubuntu jammy-updates/main amd64 php
8.1-mysql amd64 8.1.2-1ubuntu2.10 [130 kB]
Réception de :2 http://sn.archive.ubuntu.com/ubuntu jammy/main amd64 php-mysql a
ll 2:8.1+92ubuntu1 [1834 B]
132 ko réceptionnés en 1s (119 ko/s)
Sélection du paquet php8.1-mysql précédemment désélectionné.
(Lecture de la base de données... 286020 fichiers et répertoires déjà installés.
)
Préparation du dépaquetage de .../php8.1-mysql_8.1.2-1ubuntu2.10_amd64.deb ...
Dépaquetage de php8.1-mysql (8.1.2-1ubuntu2.10) ...
```



```
root@ibrahima: ~
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
| wordpress |
+-----+
5 rows in set (0,15 sec)
```

```
root@ibrahima: ~
mysql> use wordpress;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> show tables;
+-----+
| Tables_in_wordpress |
+-----+
| wp_commentmeta      |
| wp_comments         |
| wp_links            |
| wp_options          |
| wp_postmeta         |
| wp_posts             |
| wp_term_relationships |
| wp_term_taxonomy    |
| wp_termmeta         |
| wp_terms             |
| wp_usermeta         |
| wp_users             |
+-----+
12 rows in set (0,00 sec)
```

```
root@ibrahima: ~
mysql> select * from wp_users;
+-----+-----+-----+-----+-----+-----+-----+
| ID | user_login | user_pass          | user_nicename | user_email |
|     |           | $P$BPZMeRbbw985WEvsAbMC1kN12eMruN/ | balde       | ibrahim    |
| 1  | balde     | balde@esp.sn | http://localhost/wordpress | 2023-02-22 20:58:04 |
|     |           | 0             | balde       |            |
+-----+-----+-----+-----+-----+-----+
1 row in set (0,00 sec)

mysql> select * from wp_posts;
+-----+-----+-----+
```

```
root@ibrahima: ~
mysql> show databases;
+-----+-----+
| Database |           |
+-----+-----+
| information_schema |           |
| mysql |           |
| performance_schema |           |
| sys |           |
| wordpress |           |
+-----+-----+
5 rows in set (0,15 sec)
```

```
root@ibrahima: ~
mysql> use wordpress;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> show tables;
+-----+
| Tables_in_wordpress |
+-----+
| wp_commentmeta      |
| wp_comments         |
| wp_links            |
| wp_options          |
| wp_postmeta         |
| wp_posts             |
| wp_term_relationships |
| wp_term_taxonomy    |
| wp_termmeta         |
| wp_terms             |
| wp_usermeta         |
| wp_users             |
+-----+
12 rows in set (0,00 sec)
```

```
root@ibrahima: ~
mysql> select * from wp_users;
+-----+-----+-----+-----+-----+-----+-----+-----+
| ID | user_login | user_pass           | user_nicename | user_email |
|     |           | $P$BPZMeRbbw985WEvsAbMC1kN12eMruN/ | balde        | ibrahim    |
|     |           | http://localhost/wordpress | 2023-02-22 20:58:04 |           |
|     |           | 0 | balde       |               |
+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0,00 sec)

mysql> select * from wp_posts;
```

```
root@ibrahima: ~
| 1 | 2023-02-22 20:58:10 | 2023-02-22 20:58:10 | <!-- wp:paragraph -->
<p>Welcome to WordPress. This is your first post. Edit or delete it, then start writing!</p>
<!-- /wp:paragraph -->

publish      | open          | Hello world!           | hello-world
0 |           |               | 2023-02-22 20:58:10 | 2023-02-22 20:58:1
| 0 | post       |               | 0 | http://localhost/wordpress/?p=1
| 2 |           | 1 | 2023-02-22 20:58:10 | 2023-02-22 20:58:10 | <!-- wp:paragraph -->
<p>This is an example page. It's different from a blog post because it will stay in one place and will show up in your site navigation (in most themes). Most people start with an About page that introduces them to potential site visitors. It might say something like this:</p>
<!-- /wp:paragraph -->
```

```
root@ibrahima: ~
|           | auto-draft | closed          | Blog
|           |           |               | closed
| 0000-00-00 00:00:00 |           |               | 2023-02-22 21:37:19
| http://localhost/wordpress/?page_id=8 |           |               | 0 | http://localhost/w
| 0 |
| 9 |           1 | 2023-02-22 21:37:20 | 0000-00-00 00:00:00 | {
  "nav_menus_created_posts": {
    "starter_content": true,
    "value": [
      5,
      6,
      7,
      8
    ],
    "type": "option",
    "user_id": 1,
    "date_modified_gmt": "2023-02-22 21:37:20"
  },
  "nav_menu[-1)": {
    "starter_content": true,
    "value": {
      "name": "Primary menu"
    },
    "type": "nav_menu",
    "user_id": 1,
    "date_modified_gmt": "2023-02-22 21:37:20"
  }
}.
```

Mesure de Temps de réponses

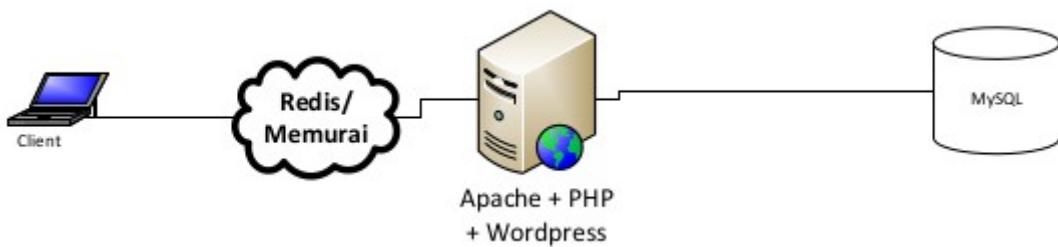
```
root@ibrahima:~# wrk -t1 -c1 -d5s http://localhost/wordpress/ 0.1K
Running 5s test @ http://localhost/wordpress/
  1 threads and 1 connections
  Thread Stats      Avg      Stdev     Max   +/- Stdev
    Latency    761.52ms  616.69ms   1.97s   85.71%
    Req/Sec     2.17     1.72     5.00   66.67%
  6 requests in 5.01s, 316.06KB read
Requests/sec:     1.20
Transfer/sec:    63.13KB
root@ibrahima:~#
```

Paquet	9 requests	26	142	520	1132	1879	1954
0.1k	requests	requests	requests	requests	requests	requests	requests
Latence	420.54ms	184.85ms	104.48ms	777.51ms	779.20ms	999.15ms	1.29s
Req/Sec	2.33	7.44	20.25	22.01	21.20	21.89	19.64

Paquet	10	29	140	491	849	1176	2175
10K	requests						
Latence	101.51ms	101.54ms	219.07ms	282.79ms	281.79ms	279.94ms	280.77ms
Req/Sec	9.50	9.83	17.10	18.02	18.28	18.24	19.11

Paquet	10	21	106	585	1055	1663	2550
50k	requests						
Latence	260.89ms	134.89ms	228.60ms	239.29ms	260.21ms	244.83ms	250.95ms
Req/Sec	18.20	21.67	21.44	21.73	21.96	21.93	21.97

Scenario 1 :



Installation

```
Activities Terminal Feb 22 11:18 silver@ubuntu: /var/www/html/wordpress
silver@ubuntu: ~
silver@ubuntu: /var/www/html/wordpress$ mysql -u root -p
Enter password:
ERROR 1098 (42000): Access denied for user 'root'@'localhost'
silver@ubuntu: /var/www/html/wordpress$ sudo mysql -u root -p
[sudo] password for silver:
Sorry, try again.
[sudo] password for silver:
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show users;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'users' at line 1
mysql> show user;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'user' at line 1
mysql> SELECT user FROM mysql.user;
+-----+
| user |
+-----+
| debian-sys-maint |
| mysql.infoschema |
| mysql.session |
| mysql.sys |
| root |
| wordpressuser |
| worduser |
+-----+
7 rows in set (0.00 sec)

mysql> exit
Bye
silver@ubuntu: /var/www/html/wordpress$ sudo mysql -u worduser -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 13
```

```
Activities Terminal Feb 22 11:18 silver@ubuntu: /var/www/html/wordpress
silver@ubuntu: ~
silver@ubuntu: /var/www/html/wordpress$ mysql -u worduser -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 13
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use wordpress;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> show tables;
+-----+
| Tables_in_wordpress |
+-----+
| wp_commentmeta |
| wp_comments |
| wp_links |
| wp_options |
| wp_postmeta |
| wp_posts |
| wp_term_relationships |
| wp_term_taxonomy |
| wp_termsmeta |
| wp_terms |
| wp_usermeta |
| wp_users |
+-----+
12 rows in set (0.00 sec)

mysql> select * from wp_links;
```


Activities Firefox Web Browser ▾

Extensions < notreprojet ... localhost/wordpress/wp-admin/plugins.php

Feb 22 11:19

Bonjour, presser

Rechercher des extensions installées...

2 éléments

Extensions Ajouter

Toutes (2) | Désactivées (2) | À mettre à jour (1) | Mises à jour auto désactivées (2)

Actions groupées Appliquer

Extension	Description	Mises à jour automatiques
Akismet Anti-Spam	Utilisé par des millions de personnes, Akismet est probablement la meilleure solution au monde pour protéger votre blog des indésirables. Il garde votre site protégé même quand vous dormez. Pour commencer : activez l'extension Akismet et allez ensuite dans la page de réglages pour configurer votre clé d'API.	Activer les mises à jour auto
Version 5.0.1 Par Automatique Afficher les détails	Une nouvelle version pour Akismet Anti-Spam est disponible. Afficher les détails de la version 5.0.2 ou mettre à jour maintenant.	
Hello Dolly	Ce n'est pas qu'une extension. Elle symbolise l'espoir et l'enthousiasme de toute une génération, résumé en deux mots, qu'a notamment chanté Louis Armstrong : Hello, Dolly. Une fois activée, elle affichera une ligne aléatoirement des paroles de la chanson Hello, Dolly, en haut à droite de toutes les pages de l'administration.	Activer les mises à jour auto
Version 1.7.2 Par Matt Mullenweg Afficher les détails		

Extension Description Mises à jour automatiques

Actions groupées Appliquer

2 éléments

Merci de faire de WordPress votre outil de création de contenu.

Version 6.1.1

Activities Firefox Web Browser ▾

Ajouter des extensions Ajouter

localhost/wordpress/wp-admin/plugin-install.php?s=Redis&tab=search&type=term

Bonjour, presser

Rechercher des extensions

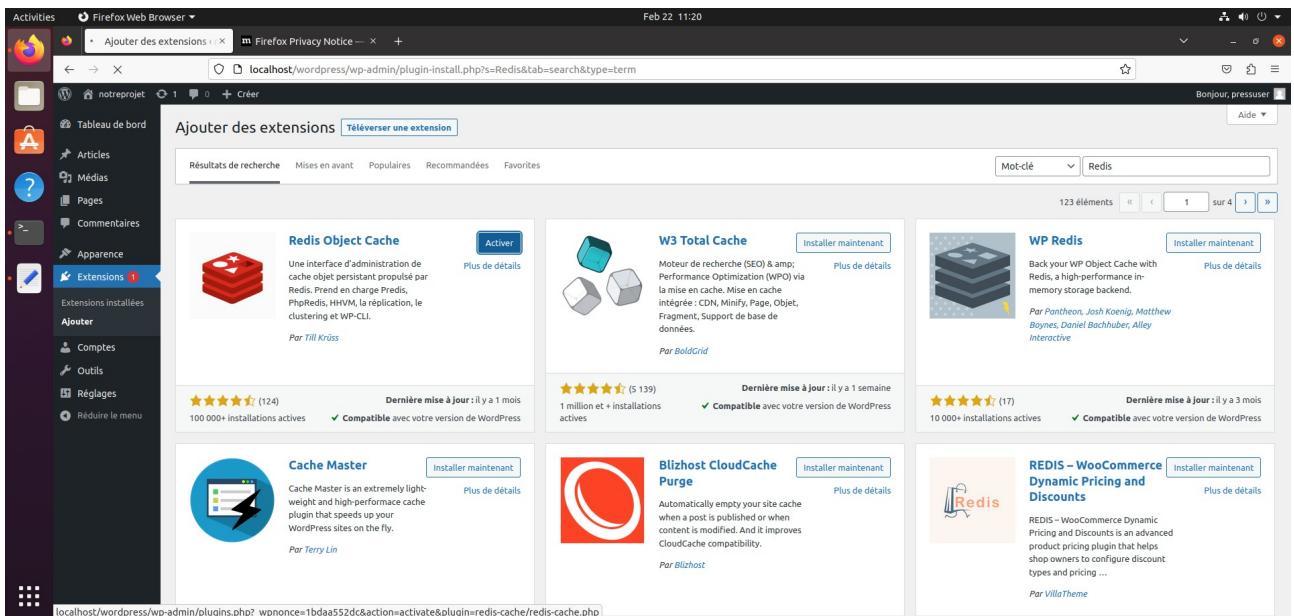
Mises en avant Populaires Recommandées Favorites

Mot-clé Redis

123 éléments 1 sur 4

Redis Object Cache	Installer maintenant	W3 Total Cache	Installer maintenant	WP Redis	Installer maintenant
Une interface d'administration de cache persistant propulsé par Redis. Prend en charge Redis, PHPRedis, HHVM, la réPLICATION, le clustering et WP-CLI.	Plus de détails	Moteur de recherche (SEO) & Performance Optimization (WPO) via la mise en cache. Mise en cache intégrée : CDN, Minify, Page, Objet, Fragment, Support de base de données.	Plus de détails	Back your WP Object Cache with Redis, a high-performance in-memory storage backend.	Plus de détails
Par Till Krüss		Par BoldGrid		Par Pantheon, Josh Koenig, Matthew Baynes, Daniel Bachhuber, Alley Interactive	
★★★★★ (124)	Dernière mise à jour : il y a 1 mois	★★★★★ (5 139)	Dernière mise à jour : il y a 1 semaine	★★★★★ (17)	Dernière mise à jour : il y a 3 mois
100 000+ installations actives	✓ Compatible avec votre version de WordPress	1 million + installations actives	✓ Compatible avec votre version de WordPress	10 000+ installations actives	✓ Compatible avec votre version de WordPress
Cache Master	Installer maintenant	Blizhost CloudCache Purge	Installer maintenant	REDIS – WooCommerce Dynamic Pricing and Discounts	Installer maintenant
Cache Master est un extremely lightweight and high-performance cache plugin that speeds up your WordPress sites on the fly.	Plus de détails	Automatically empty your site cache when a post is published or when content is modified. And it improves CloudCache compatibility.	Plus de détails	REDIS – WooCommerce Dynamic Pricing and Discounts is an advanced product pricing plugin that helps shop owners to configure discount types and pricing ...	Plus de détails
Par Terry Lin		Par Blizhost		Par VillaTheme	

localhost/wordpress/wp-admin/update.php?action=install-plugin&plugin=redis-cache&_wpnonce=30799c334d



```

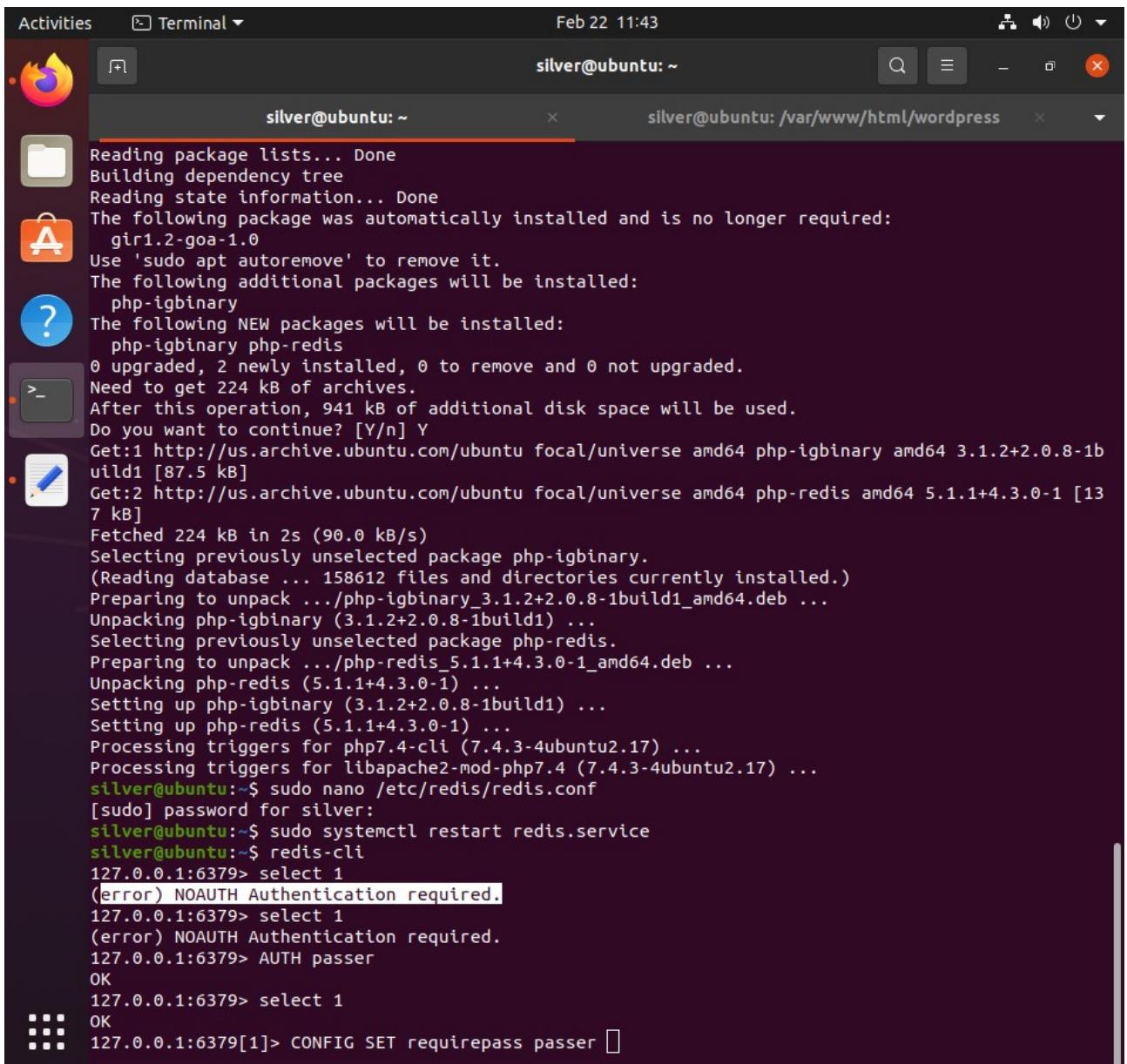
Activities Terminal Feb 22 11:40
silver@ubuntu: ~
silver@ubuntu: /var/www/html/wordpress
GNU nano 4.8 /etc/redis/redis.conf Modified

#####
# SECURITY #####
# Require clients to issue AUTH <PASSWORD> before processing any other
# commands. This might be useful in environments in which you do not trust
# others with access to the host running redis-server.
#
# This should stay commented out for backward compatibility and because most
# people do not need auth (e.g. they run their own servers).
#
# Warning: since Redis is pretty fast an outside user can try up to
# 150k passwords per second against a good box. This means that you should
# use a very strong password otherwise it will be very easy to break.
#
#requirepass passer

# Command renaming.
#
# It is possible to change the name of dangerous commands in a shared
# environment. For instance the CONFIG command may be renamed into something
# hard to guess so that it will still be available for internal-use tools
# but not available for general clients.
#
# Example:
#
# rename-command CONFIG b840fc02d524045429941cc15f59e41cb7be6c52
#
# It is also possible to completely kill a command by renaming it into
# an empty string:
#
# rename-command CONFIG ""
#
# Please note that changing the name of commands that are logged into the
# AOF file or transmitted to replicas may cause problems.

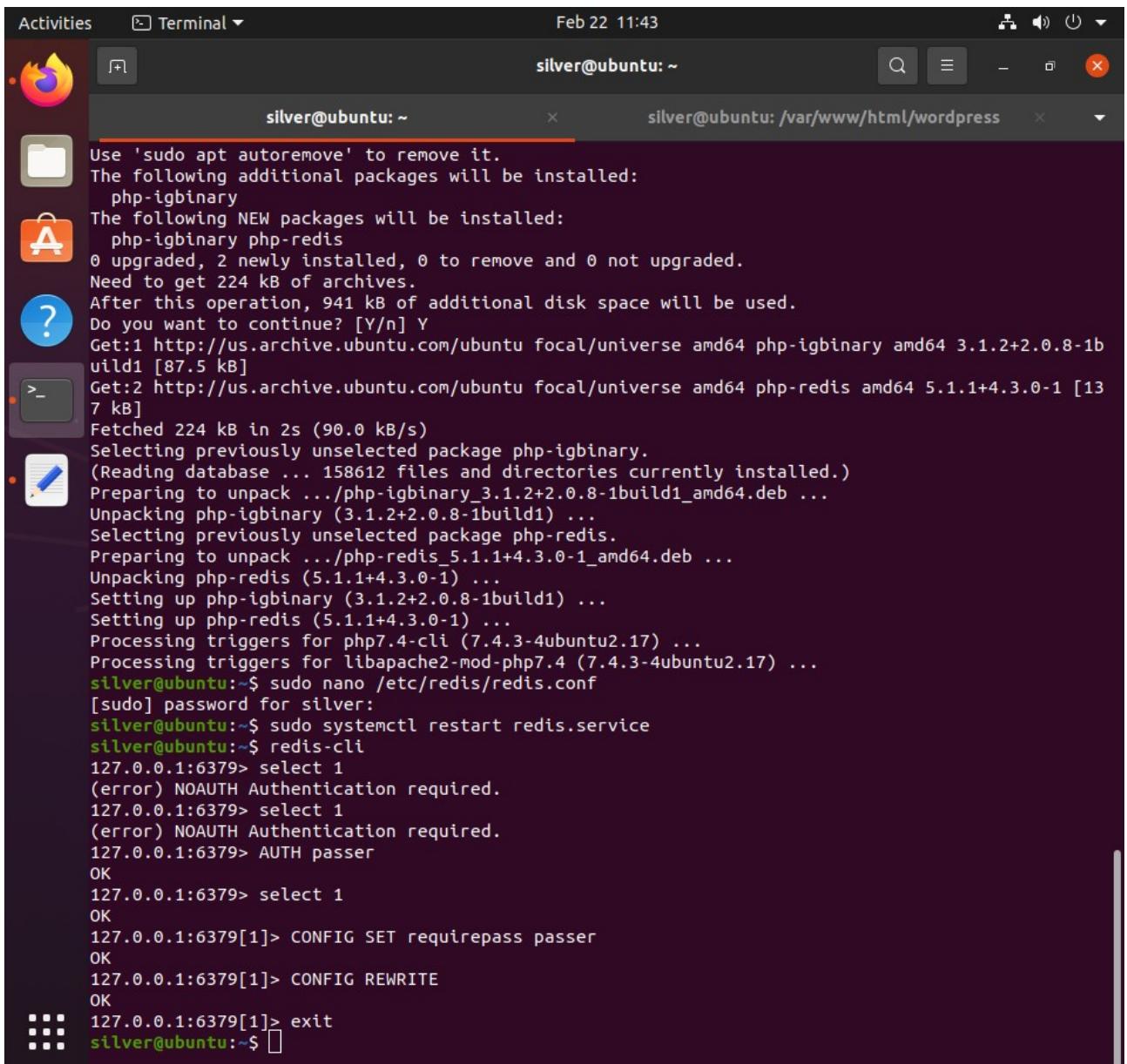
#####
# CLIENTS #####
# Set the max number of connected clients at the same time. By default
# this limit is set to 10000 clients, however if the Redis server is not

```



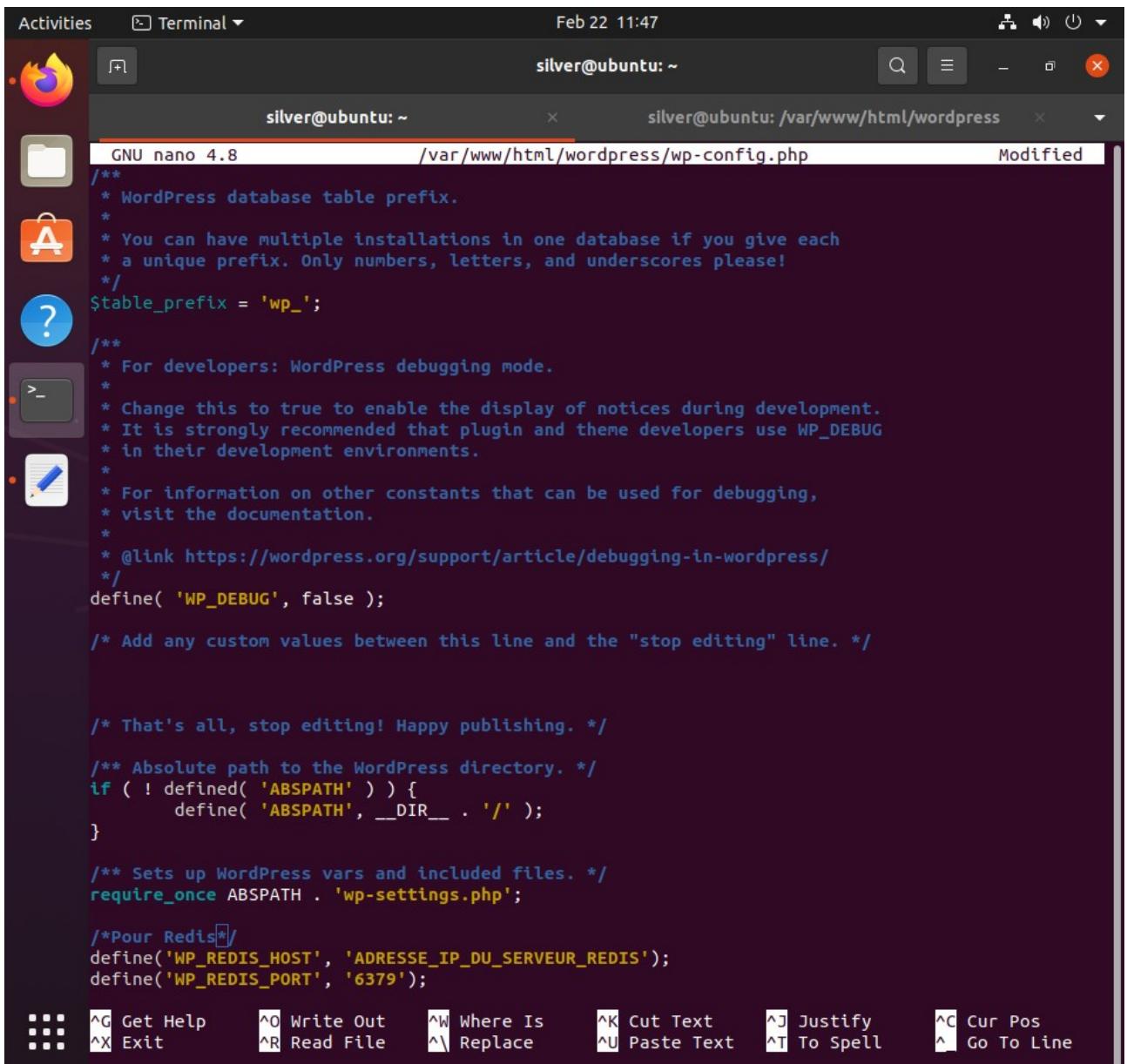
A screenshot of a Ubuntu desktop environment. The terminal window is open, showing a series of commands and their outputs. The terminal title is "silver@ubuntu: ~". The command history includes:

```
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
  gir1.2-goa-1.0
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  php-igbinary
The following NEW packages will be installed:
  php-igbinary php-redis
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 224 kB of archives.
After this operation, 941 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://us.archive.ubuntu.com/ubuntu focal/universe amd64 php-igbinary amd64 3.1.2+2.0.8-1build1 [87.5 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu focal/universe amd64 php-redis amd64 5.1.1+4.3.0-1 [137 kB]
Fetched 224 kB in 2s (90.0 kB/s)
Selecting previously unselected package php-igbinary.
(Reading database ... 158612 files and directories currently installed.)
Preparing to unpack .../php-igbinary_3.1.2+2.0.8-1build1_amd64.deb ...
Unpacking php-igbinary (3.1.2+2.0.8-1build1) ...
Selecting previously unselected package php-redis.
Preparing to unpack .../php-redis_5.1.1+4.3.0-1_amd64.deb ...
Unpacking php-redis (5.1.1+4.3.0-1) ...
Setting up php-igbinary (3.1.2+2.0.8-1build1) ...
Setting up php-redis (5.1.1+4.3.0-1) ...
Processing triggers for php7.4-cli (7.4.3-4ubuntu2.17) ...
Processing triggers for libapache2-mod-php7.4 (7.4.3-4ubuntu2.17) ...
silver@ubuntu:~$ sudo nano /etc/redis/redis.conf
[sudo] password for silver:
silver@ubuntu:~$ sudo systemctl restart redis.service
silver@ubuntu:~$ redis-cli
127.0.0.1:6379> select 1
(error) NOAUTH Authentication required.
127.0.0.1:6379> select 1
(error) NOAUTH Authentication required.
127.0.0.1:6379> AUTH passer
OK
127.0.0.1:6379> select 1
OK
127.0.0.1:6379[1]> CONFIG SET requirepass passer
```



A screenshot of a Ubuntu desktop environment. The terminal window is open, showing a series of commands and their outputs. The terminal title bar says "silver@ubuntu: ~". The command history shows:

```
silver@ubuntu:~$ sudo apt autoremove
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  php-igbinary
The following NEW packages will be installed:
  php-igbinary php-redis
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 224 kB of archives.
After this operation, 941 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://us.archive.ubuntu.com/ubuntu focal/universe amd64 php-igbinary amd64 3.1.2+2.0.8-1build1 [87.5 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu focal/universe amd64 php-redis amd64 5.1.1+4.3.0-1 [137 kB]
Fetched 224 kB in 2s (90.0 kB/s)
Selecting previously unselected package php-igbinary.
(Reading database ... 158612 files and directories currently installed.)
Preparing to unpack .../php-igbinary_3.1.2+2.0.8-1build1_amd64.deb ...
Unpacking php-igbinary (3.1.2+2.0.8-1build1) ...
Selecting previously unselected package php-redis.
Preparing to unpack .../php-redis_5.1.1+4.3.0-1_amd64.deb ...
Unpacking php-redis (5.1.1+4.3.0-1) ...
Setting up php-igbinary (3.1.2+2.0.8-1build1) ...
Setting up php-redis (5.1.1+4.3.0-1) ...
Processing triggers for php7.4-cli (7.4.3-4ubuntu2.17) ...
Processing triggers for libapache2-mod-php7.4 (7.4.3-4ubuntu2.17) ...
silver@ubuntu:~$ sudo nano /etc/redis/redis.conf
[sudo] password for silver:
silver@ubuntu:~$ sudo systemctl restart redis.service
silver@ubuntu:~$ redis-cli
127.0.0.1:6379> select 1
(error) NOAUTH Authentication required.
127.0.0.1:6379> select 1
(error) NOAUTH Authentication required.
127.0.0.1:6379> AUTH passer
OK
127.0.0.1:6379> select 1
OK
127.0.0.1:6379[1]> CONFIG SET requirepass passer
OK
127.0.0.1:6379[1]> CONFIG REWRITE
OK
127.0.0.1:6379[1]> exit
silver@ubuntu:~$
```



A screenshot of a Linux desktop environment, specifically Ubuntu, showing the Activities overview and a terminal window.

The terminal window title is "silver@ubuntu: ~" and the current directory is "/var/www/html/wordpress". The file being edited is "wp-config.php". The status bar indicates the file is "Modified".

```
GNU nano 4.8 /var/www/html/wordpress/wp-config.php Modified
/*
 * WordPress database table prefix.
 *
 * You can have multiple installations in one database if you give each
 * a unique prefix. Only numbers, letters, and underscores please!
 */
$table_prefix = 'wp_';

/*
 * For developers: WordPress debugging mode.
 *
 * Change this to true to enable the display of notices during development.
 * It is strongly recommended that plugin and theme developers use WP_DEBUG
 * in their development environments.
 *
 * For information on other constants that can be used for debugging,
 * visit the documentation.
 *
 * @link https://wordpress.org/support/article/debugging-in-wordpress/
 */
define( 'WP_DEBUG', false );

/* Add any custom values between this line and the "stop editing" line. */

/* That's all, stop editing! Happy publishing. */

/** Absolute path to the WordPress directory. */
if ( ! defined( 'ABSPATH' ) ) {
    define( 'ABSPATH', __DIR__ . '/' );
}

/** Sets up WordPress vars and included files. */
require_once ABSPATH . 'wp-settings.php';

/*Pour Redis*/
define('WP_REDIS_HOST', 'ADRESSE_IP_DU_SERVEUR_REDIS');
define('WP_REDIS_PORT', '6379');
```

Terminal keyboard shortcuts:

- Grid icon: ^G Get Help
- Exit icon: ^X Exit
- File icon: ^O Write Out
- File icon: ^R Read File
- Search icon: ^W Where Is
- Search icon: ^A Replace
- Cut icon: ^K Cut Text
- Paste icon: ^U Paste Text
- Justify icon: ^J Justify
- Spelling icon: ^T To Spell
- Cursor icon: ^C Cur Pos
- Line icon: ^L Go To Line

The screenshot shows a Linux desktop environment, specifically Ubuntu, with a terminal window open. The terminal window title is "silver@ubuntu: ~" and the current working directory is "/var/www/html/wordpress". The file being edited is "wp-config.php". The code in the file is as follows:

```
GNU nano 4.8 /var/www/html/wordpress/wp-config.php Modified
*
* You can have multiple installations in one database if you give each
* a unique prefix. Only numbers, letters, and underscores please!
*/
$table_prefix = 'wp_';

/**
* For developers: WordPress debugging mode.
*
* Change this to true to enable the display of notices during development.
* It is strongly recommended that plugin and theme developers use WP_DEBUG
* in their development environments.
*
* For information on other constants that can be used for debugging,
* visit the documentation.
*
* @link https://wordpress.org/support/article/debugging-in-wordpress/
*/
define( 'WP_DEBUG', false );

/* Add any custom values between this line and the "stop editing" line. */

/* That's all, stop editing! Happy publishing. */

/** Absolute path to the WordPress directory. */
if ( ! defined( 'ABSPATH' ) ) {
    define( 'ABSPATH', __DIR__ . '/' );
}

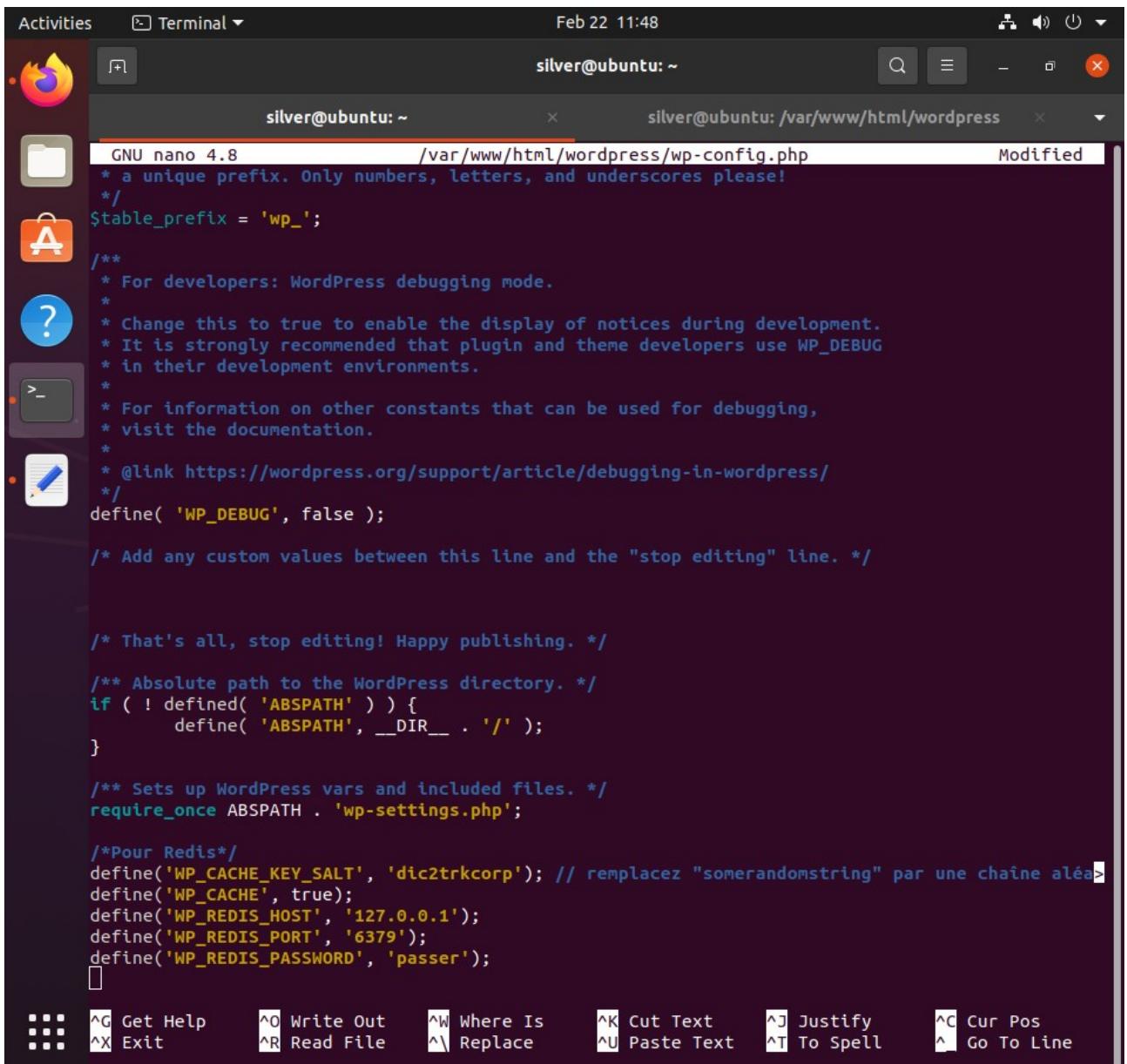
/** Sets up WordPress vars and included files. */
require_once ABSPATH . 'wp-settings.php';

/*Pour Redis*/
define('WP_REDIS_HOST', 'ADRESSE_IP_DU_SERVEUR_REDIS');
define('WP_REDIS_PORT', '6379');
define('WP_REDIS_PASSWORD', 'VOTRE_MOT_DE_PASSE_REDIS');

```

At the bottom of the terminal window, there is a menu of keyboard shortcuts:

- Get Help
- Write Out
- Where Is
- Cut Text
- Justify
- Cur Pos
- Exit
- Read File
- Replace
- Paste Text
- To Spell
- Go To Line



The image shows a screenshot of a Linux desktop environment, specifically Ubuntu, with a terminal window open. The terminal window is titled "silver@ubuntu: ~" and has a tab labeled "silver@ubuntu: /var/www/html/wordpress". The terminal content is the configuration file "/var/www/html/wordpress/wp-config.php". The file contains various PHP code snippets, including database prefix definitions, developer mode configurations, and Redis cache settings. The terminal interface includes a menu bar at the top with "Activities" and "Terminal", and a bottom row of keyboard shortcut icons for actions like Get Help, Write Out, Where Is, Cut Text, Justify, Cur Pos, Exit, Read File, Replace, Paste Text, To Spell, and Go To Line.

```
GNU nano 4.8          /var/www/html/wordpress/wp-config.php
 * a unique prefix. Only numbers, letters, and underscores please!
 */
$table_prefix = 'wp_';

/**
 * For developers: WordPress debugging mode.
 *
 * Change this to true to enable the display of notices during development.
 * It is strongly recommended that plugin and theme developers use WP_DEBUG
 * in their development environments.
 *
 * For information on other constants that can be used for debugging,
 * visit the documentation.
 *
 * @link https://wordpress.org/support/article/debugging-in-wordpress/
 */
define( 'WP_DEBUG', false );

/* Add any custom values between this line and the "stop editing" line. */

/* That's all, stop editing! Happy publishing. */

/** Absolute path to the WordPress directory. */
if ( ! defined( 'ABSPATH' ) ) {
    define( 'ABSPATH', __DIR__ . '/' );
}

/** Sets up WordPress vars and included files. */
require_once ABSPATH . 'wp-settings.php';

/*Pour Redis*/
define('WP_CACHE_KEY_SALT', 'dic2trkcorp'); // remplacez "somerandomstring" par une chaîne aléatoire
define('WP_CACHE', true);
define('WP_REDIS_HOST', '127.0.0.1');
define('WP_REDIS_PORT', '6379');
define('WP_REDIS_PASSWORD', 'passer');

```

The screenshot shows the 'Redis Object Cache' settings page in the WordPress dashboard. The left sidebar has 'Réglages' selected. The main area displays the following configuration:

- Connexion**
 - Client: PhpRedis (v5.1.1)
 - Hébergeur: 127.0.0.1
 - Port: 6379
 - Délai d'attente pour la connexion: 1 sec.
 - Délai d'attente pour la lecture: 1 sec.
 - Intervalle entre 2 tentatives: 0 ms
 - Version de Redis: 5.0.7
- Ressources** sidebar: Need more performance and reliability? Check out [Object Cache Pro!](#)
- Actions**: Purger le cache, Désactiver le cache objet.

At the bottom, it says "Merci de faire de WordPress votre outil de création de contenu." and "Version 6.1.1".

```

Feb 22 12:01 silver@ubuntu: ~
silver@ubuntu: /var/www/html/wordpress
silver@ubuntu: ~

(error) ERR Unknown subcommand or wrong number of arguments for 'RESERSTAT'. Try CONFIG HELP.
127.0.0.1:6379[1]:> CONFIG SET requirepass
OK
127.0.0.1:6379[1]:> REWRITE
(error) ERR unknown command 'REWRITE', with args beginning with:
127.0.0.1:6379[1]:> CONFIG REWRITE
OK
127.0.0.1:6379[1]:> exit
silver@ubuntu: ~
127.0.0.1:6379> AUTH passer
(error) ERR Client sent AUTH, but no password is set
127.0.0.1:6379> select 1
OK
127.0.0.1:6379[1]:> KEYS *
(empty list or set)
127.0.0.1:6379[1]:> select 0
OK
127.0.0.1:6379> KEYS *
1) "wp:options:is_user_count"
2) "wp:posts:wp_query-2:1c7354c571cc5a7efc13862b0f74e3-0.52988500_16770936260.52873200_1677093626"
3) "wp:site-transient:wp_remote_block_patterns_6a465bb1f25227b9b68ddbc3d2dec0"
4) "wp:post_tag_relationships:1"
5) "wp:posts:wp_query-4:cbfa75b1a0d02bcd00106358247b7fc-0.54297700_16770959890.52451800_1677095989"
6) "wp:transients:allowptions"
7) "wp:option:nonce_salt"
8) "wp:posts:7"
9) "wp:posts:wp_query-4:cbfa75b1a602bcd00106358247b7fc-0.52988500_16770936260.52873200_1677093626"
10) "wp:post_meta:6"
11) "wp:posts:2"
12) "wp:posts:3"
13) "wp:posts:wp_query-fb8d5c88bbfe2e4b972d34000dd23b0e-0.52777900_1677095928"
14) "wp:transient:feed_49c2a745bae14f12af8a9b58c9f0749"
15) "wp:posts:wp_query-4:cbfa75b1a0d02bcd00106358247b7fc-0.54221100_16770960490.52451800_1677095989"
16) "wp:site-transient:community-events-iaeef33ab525ff212ebdfbb438372e"
17) "wp:transient:dash_v2_b2d94b8f41e74bae2f4dc72e9bdd379af"
18) "wp:usersslugs:pressuser"
19) "wp:options:ca_compress_scripts"
20) "wp:transient:feed_0d2db5fe5a5d3b3b5992c910819b198"
21) "wp:comment:available_translations"
22) "wp:comment_meta:1"
23) "wp:comment_get_comments-e96df11ec1dc1141982d65e4d21821-0.54679100_1677093626"
24) "wp:post_format_relationships:1"
25) "wp:posts:wp_query-b7953cf35aa7d9f7ccf9446a500873da-0.52988500_16770936260.52873200_1677093626"
26) "wp:options:logged_in_salt"

```

```
Activities Terminal Feb 22 12:01
silver@ubuntu: ~
silver@ubuntu: /var/www/html/wordpress

53 "wp:posts:4"
54 "wp:post_meta:7"
55 "wp:posts:wp_query-07d4a604c1b6f61d9fe27cc03bac0352-0.58579300 1677095987"
56 "wp:posts:wp_query-07d4a604c1b6f61d9fe27cc03bac0352-0.58579300 1677095987"
57 "wp:posts:meta:1"
58 "wp:comment:email:ohamedansourguey@esp.sn"
59 "wp:redis:cache:metrics"
60 "wp:terms:get_terms-3c007108e9c0805ab2bb0fe1e6eddfc-0.52451800 1677095989"
61 "wp:posts:wp_query-zcl7354c571cc5a7efc13862b0ff4e3-0.54297700 16770959890.52451800 1677095989"
62 "wp:posts:wp_query-3e973d3a017423d9c28573fe6f12e1-0.52777900 16770959820.52873200 1677093626"
63 "wp:posts:wp_query-e5466bb589702ca4f529dd745132945-0.52777900 16770959820.52873200 1677093626"
64 "wp:posts:wp_query-2824952a9166790de7a7e69edcb9ff4-0.52777900 1677095928"
65 "wp:site:transient:browser_bff7b69e728534dc9c451bf2fdff1"
66 "wp:comment:get_comments-fbb001ab5aa3f7e15b8511e52a82c41-0.54679100 1677093626"
67 "wp:posts:wp_query-zcl7354c571cc5a7efc13862b0ff4e3-0.54221100 16770960490.52451800 1677095989"
68 "wp:posts:wp_query-chk_check_08e3f4a0da8e2204bd4ac65261df3cb2"
69 "wp:posts:8"
70 "wp:posts:wp_query-428f83895717a3f2f68e88d3af3bf77d-0.52777900 1677095928"
71 "wp:comment:comment_f1008f432432f9e599f9bf30f3d8f185-0.54679100 1677095987"
72 "wp:comment:comment_f1008f432432f9e599f9bf30f3d8f185-0.54679100 1677095987"
73 "wp:posts:5"
74 "wp:curllogins:pressuser"
75 "wp:twp_them.relationships:6"
76 "wp:site:options:1-notoptions"
77 "wp:posts:wp_query-4cfaf751a002b2cd0d106358247b7fc-0.59364200 16770959870.52451800 1677095989"
78 "wp:posts:wp_query-dfa73b5cc31a779ecfb876b5c169897c-0.52988500 1677093626"
79 "wp:comment:get_comments-10516a23ca8801fb4825750bd3e0c2d-0.54679100 1677093626"
80 "wp:terms:2"
81 "wp:comment:get_comments-f1008f432432f9e599f9bf30f3d8f185-0.54679100 1677094326"
82 "wp:comment:get_comments-25af98c570c8390ccf24eb1246389ffd-0.54679100 1677093626"
83 "wp:posts:wp_query-zcl7354c571cc5a7efc13862b0ff4e3-0.52777900 16770959820.52873200 1677093626"
84 "wp:terms:1"
85 "wp:posts:2"
86 "wp:posts:2-2c1c7354c571cc5a7efc13862b0ff4e3-0.59364200 16770959870.52451800 1677095989"
87 "wp:posts:wp_query-94656679583767e55750bd7cf7879-0.52988500 1677093626"
88 "wp:posts:1"
89 "wp:comment:get_comments-bbaf4b0dd4ae0d4b74b890f6f3eeac2-0.54679100 1677095987"
90 "wp:posts:wp_query-aabb0a7682b567c7eb521a1eb8b073-0.58579300 1677095987"
91 "wp:posts:wp_query-0735df0b632e4cc5e236999ad2ab1b3-0.59364200 1677095987"
92 "wp:site:transient:update_themes"
93 "wp:comment:comment_f4612f2dd3b604b784c3eb3dac699d60-0.54679100 1677095982"
94 "wp:site:options:1-notoptions"
95 "wp:transient:feed_mod_48c2a7450ae1f12ef8a9b58ca9f0748"
127.0.0.1:6379[]
```

A screenshot of a Firefox browser window titled "Firefox Web Browser". The address bar shows "localhost/wordpress/wp-admin/index.php". The main content area displays the WordPress dashboard with sections for "Tableau de bord", "Personnaliser", "Modifiez l'apparence", "Redis Object Cache", "Brouillon rapide", "État de santé du site", and "Événements et nouveautés WordPress". On the left, a sidebar lists site navigation and settings. The top right corner shows the date and time as "Feb 22 12:34" and a message "Bonjour, presser".

Mesure de Temps de réponses

```
Activities Terminal Mar 13 17:56
silver@ubuntu: ~/Downloads/wrk-master
CC src/script.c
CC src/units.c
CC src/ae.c
CC src/zmalloc.c
CC src/http_parser.c
LUAJIT src/wrk.lua
cc -std=c99 -Wall -O2 -D_REENTRANT -D_POSIX_C_SOURCE=200112L -D_BSD_SOURCE -D_DEFAULT_SOURCE -Iobj/include -Iobj/include/luajit-2.1 -c -o obj bytecode.o obj bytecode.c
fatal: not a git repository (or any of the parent directories): .git
LINK wrk
silver@ubuntu:~/Downloads/wrk-master$ wrk -t10 -c10 -d2s http://localhost/wordpress/index.php/test/
Command 'wrk' not found, did you mean:
  command 'ark' from snap ark (22.08.1)
  command 'irk' from deb lrker (2.18+dfsg-4)
  command 'wmx' from deb wml (2.12.2-ds1-2)
  command 'ark' from deb ark (4:19.12.3-0ubuntu1.2)
See 'snap info <snapname>' for additional versions.

silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t10 -c10 -d2s http://localhost/wordpress/index.php/test/
Running 2s test @ http://localhost/wordpress/index.php/test/
  10 threads and 10 connections
  Thread Stats Avg Stdev Max +/- Stdev
    Latency 531.24ms 69.11ms 649.15ms 83.87%
    Req/Sec 1.23 0.50 3.00 80.65%
  31 requests in 2.01s, 1.84MB read
Requests/sec: 15.40
Transfer/sec: 0.91MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d2s http://localhost/wordpress/index.php/test/
Running 2s test @ http://localhost/wordpress/index.php/test/
  1 threads and 1 connections
  Thread Stats Avg Stdev Max +/- Stdev
    Latency 122.85ms 49.87ms 206.24ms 81.25%
    Req/Sec 8.81 4.05 20.00 73.33%
  16 requests in 2.01s, 0.95MB read
Requests/sec: 7.06
Transfer/sec: 483.70KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -dis http://localhost/wordpress/index.php/test/
Running 1s test @ http://localhost/wordpress/index.php/test/
  1 threads and 1 connections
  Thread Stats Avg Stdev Max +/- Stdev
    Latency 162.23ms 44.37ms 239.84ms 66.67%
    Req/Sec 6.33 2.88 10.00 66.67%
  6 requests in 1.00s, 364.47KB read
Requests/sec: 5.98
Transfer/sec: 364.47KB
```

```
Activities Terminal Mar 13 17:56
silver@ubuntu: ~/Downloads/wrk-master
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d5s http://localhost/wordpress/index.php/test/
Running 5s test @ http://localhost/wordpress/index.php/test/
  2 threads and 2 connections
  Thread Stats Avg Stdev Max +/- Stdev
    Latency 129.92ms 35.02ms 276.57ms 79.22%
    Req/Sec 8.32 2.51 16.00 70.27%
  76 requests in 5.01s, 4.51MB read
Requests/sec: 15.16
Transfer/sec: 0.90MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d7s http://localhost/wordpress/index.php/test/
Running 7s test @ http://localhost/wordpress/index.php/test/
  2 threads and 2 connections
  Thread Stats Avg Stdev Max +/- Stdev
    Latency 139.99ms 38.55ms 229.72ms 74.00%
    Req/Sec 7.88 2.57 10.00 61.00%
  100 requests in 7.03s, 5.93MB read
Requests/sec: 14.23
Transfer/sec: 864.67KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d7s http://localhost/wordpress/index.php/test/ 0.1K
Running 7s test @ http://localhost/wordpress/index.php/test/
  2 threads and 2 connections
  Thread Stats Avg Stdev Max +/- Stdev
    Latency 117.98ms 26.98ms 288.71ms 85.00%
    Req/Sec 9.03 2.27 26.00 81.20%
  118 requests in 7.03s, 7.00MB read
Requests/sec: 16.79
Transfer/sec: 0.80MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d15s http://localhost/wordpress/index.php/test/
Running 15s test @ http://localhost/wordpress/index.php/test/
  2 threads and 2 connections
  Thread Stats Avg Stdev Max +/- Stdev
    Latency 122.02ms 30.79ms 238.92ms 84.55%
    Req/Sec 8.84 2.49 20.00 77.46%
  246 requests in 15.05s, 14.59MB read
Requests/sec: 16.34
Transfer/sec: 0.97MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d30s http://localhost/wordpress/index.php/test/ 0.1K
Running 30s test @ http://localhost/wordpress/index.php/test/
  2 threads and 2 connections
  Thread Stats Avg Stdev Max +/- Stdev
    Latency 113.10ms 24.09ms 281.83ms 84.33%
    Req/Sec 9.34 2.10 20.00 85.93%
  531 requests in 30.01s, 31.50MB read
Requests/sec: 17.69
Transfer/sec: 1.05MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d60s http://localhost/wordpress/index.php/test/ 0.1K
```

```
Activities Terminal Mar 13 17:56
silver@ubuntu: ~/Downloads/wrk-master
Req/Sec 8.48 2.57 20.00 71.60%
934 requests in 1.00m, 55.41MB read
Requests/sec: 15.56
Transfer/sec: 0.92MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d120s http://localhost/wordpress/index.php/test/ 0.1K
Running 120 test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 118.73ms 29.33ms 352.70ms 86.03%
Req/Sec 9.04 2.23 20.00 81.48%
2025 requests in 2.00m, 120.13MB read
Requests/sec: 16.86
Transfer/sec: 1.00MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t3 -c3 -d120s http://localhost/wordpress/index.php/test/ 0.1K
Running 2m test @ http://localhost/wordpress/index.php/test/
3 threads and 3 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 146.99ms 33.84ms 303.00ms 67.69%
Req/Sec 7.55 2.68 20.00 88.08%
2449 requests in 2.00m, 145.28MB read
Requests/sec: 20.40
Transfer/sec: 1.21MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t5 -c5 -d120s http://localhost/wordpress/index.php/test/ 0.1K
Running 2m test @ http://localhost/wordpress/index.php/test/
5 threads and 5 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 223.22ms 24.38ms 527.25ms 73.15%
Req/Sec 4.45 1.13 16.00 74.05%
2686 requests in 2.00m, 159.38MB read
Requests/sec: 22.37
Transfer/sec: 1.33MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d1s http://localhost/wordpress/index.php/test/ 10K
Running 1s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 112.67ms 53.22ms 236.85ms 87.50%
Req/Sec 10.33 5.47 28.00 66.67%
8 requests in 1.00s, 485.96KB read
Requests/sec: 7.96
Transfer/sec: 483.28KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d10s http://localhost/wordpress/index.php/test/ 10K
Running 10s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 112.39ms 35.25ms 186.74ms 53.93%
Req/Sec 9.30 2.95 20.00 79.01%
```

```
Activities Terminal Mar 13 17:56
silver@ubuntu: ~/Downloads/wrk-master
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d10s http://localhost/wordpress/index.php/test/ 10K
Running 10s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 112.39ms 35.25ms 186.74ms 53.93%
Req/Sec 9.30 2.95 20.00 79.01%
89 requests in 10.04s, 5.28MB read
Requests/sec: 8.86
Transfer/sec: 538.28KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d10s http://localhost/wordpress/index.php/test/ 10K
Running 10s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
^C Thread Stats Avg Stdev Max +/- Stdev
Latency 181.07ms 57.29ms 246.58ms 60.00%
Req/Sec 5.20 2.77 10.00 80.00%
5 requests in 1.11s, 303.73KB read
Requests/sec: 4.52
Transfer/sec: 274.62KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d12s http://localhost/wordpress/index.php/test/ 10K
Running 12s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 110.86ms 41.77ms 223.58ms 55.96%
Req/Sec 9.79 4.54 20.00 63.83%
108 requests in 12.06s, 6.41MB read
Requests/sec: 8.95
Transfer/sec: 543.87KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d12s http://localhost/wordpress/index.php/test/ 10K
Running 12s test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 117.13ms 21.91ms 214.84ms 80.49%
Req/Sec 9.02 2.06 10.00 82.93%
205 requests in 12.04s, 12.16MB read
Requests/sec: 17.02
Transfer/sec: 1.01MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d15s http://localhost/wordpress/index.php/test/ 10K
Running 15s test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 115.21ms 26.89ms 302.45ms 88.64%
Req/Sec 9.24 2.01 20.00 85.60%
261 requests in 15.05s, 15.48MB read
Requests/sec: 17.35
Transfer/sec: 1.03MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d30s http://localhost/wordpress/index.php/test/ 10K
```

```
Activities Terminal Mar 13 17:56
silver@ubuntu: ~/Downloads/wrk-master
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d30s http://localhost/wordpress/index.php/test/ 10K
Running 30s test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 120.90ms 25.95ms 217.69ms 82.46%
Req/Sec 8.81 2.16 10.00 79.44%
496 requests in 30.10s, 29.42MB read
Requests/sec: 16.48
Transfer/sec: 0.98MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d60s http://localhost/wordpress/index.php/test/ 10K
Running 10s test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 119.57ms 28.63ms 224.29ms 83.37%
Req/Sec 8.95 2.21 20.00 80.46%
1004 requests in 1.00m, 59.56MB read
Requests/sec: 16.71
Transfer/sec: 0.99MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t5 -c5 -d60s http://localhost/wordpress/index.php/test/ 10K
Running 10s test @ http://localhost/wordpress/index.php/test/
5 threads and 5 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 223.59ms 23.64ms 326.26ms 69.55%
Req/Sec 4.42 1.09 10.00 74.33%
1340 requests in 1.00m, 79.49MB read
Requests/sec: 22.30
Transfer/sec: 1.32MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t5 -c5 -d120s http://localhost/wordpress/index.php/test/ 10K
Running 20s test @ http://localhost/wordpress/index.php/test/
5 threads and 5 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 222.77ms 23.43ms 413.81ms 78.15%
Req/Sec 4.41 1.18 10.00 73.90%
2697 requests in 2.00m, 159.99MB read
Requests/sec: 22.46
Transfer/sec: 1.33MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -dis http://localhost/wordpress/index.php/test/ 50K
Running 1s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 115.77ms 40.35ms 184.57ms 50.00%
Req/Sec 9.14 5.49 20.00 85.71%
8 requests in 1.00s, 485.96KB read
Requests/sec: 7.98
Transfer/sec: 484.84KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d2s http://localhost/wordpress/index.php/test/ 50K
```

```
Activities Terminal Mar 13 17:56
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d2s http://localhost/wordpress/index.php/test/ 50K
Running 2s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 186.40ms 30.67ms 218.44ms 70.00%
Req/Sec 5.00 1.83 10.00 90.00%
10 requests in 2.01s, 607.45KB read
Requests/sec: 4.97
Transfer/sec: 301.91KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d10s http://localhost/wordpress/index.php/test/ 50K
Running 10s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 130.09ms 38.64ms 199.13ms 54.55%
Req/Sec 8.35 3.85 20.00 70.83%
77 requests in 10.05s, 4.57MB read
Requests/sec: 7.66
Transfer/sec: 465.29KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t1 -c1 -d15s http://localhost/wordpress/index.php/test/ 50K
Running 15s test @ http://localhost/wordpress/index.php/test/
1 threads and 1 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 139.85ms 38.37ms 243.20ms 69.16%
Req/Sec 7.74 2.89 20.00 82.18%
107 requests in 15.08s, 6.35MB read
Requests/sec: 7.10
Transfer/sec: 431.00KB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d20s http://localhost/wordpress/index.php/test/ 50K
Running 20s test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 124.58ms 28.14ms 211.74ms 79.19%
Req/Sec 8.66 2.29 10.00 76.09%
322 requests in 20.07s, 19.10MB read
Requests/sec: 16.04
Transfer/sec: 0.95MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d40s http://localhost/wordpress/index.php/test/ 50K
Running 40s test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 120.48ms 28.95ms 225.55ms 84.49%
Req/Sec 8.92 2.38 20.00 78.96%
664 requests in 40.04s, 39.39MB read
Requests/sec: 16.58
Transfer/sec: 0.98MB
silver@ubuntu:~/Downloads/wrk-master$ ./wrk -t2 -c2 -d60s http://localhost/wordpress/index.php/test/ 50K
```

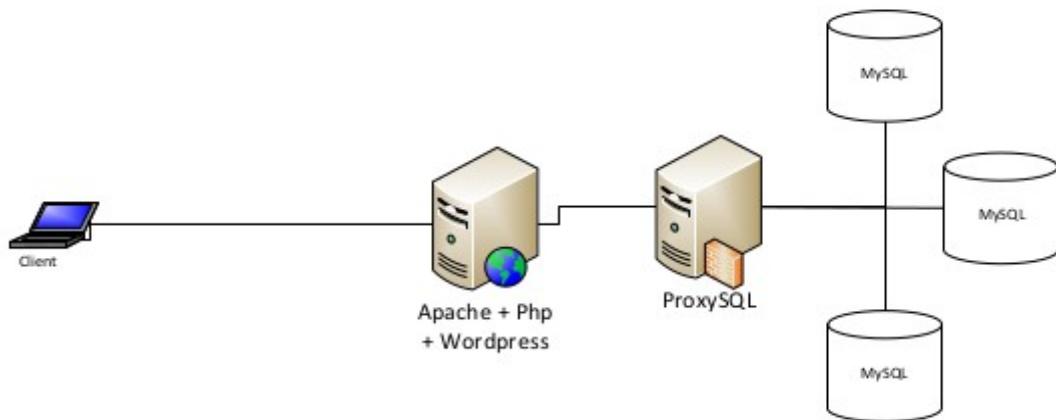
```
Activities Terminal Mar 13 17:57
silver@ubuntu: ~/Downloads/wrk-master

Latency 120.48ms 28.95ms 225.55ms 84.49%
Req/Sec 8.92 2.38 26.00 78.96%
664 requests in 40.04s, 39.39MB read
Requests/sec: 16.58
Transfer/sec: 0.98MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t2 -c2 -d60s http://localhost/wordpress/index.php/test/ 50K
Running 1m test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 114.27ms 22.92ms 231.12ms 81.84%
Req/Sec 9.25 2.23 26.00 83.41%
1050 requests in 1.00m, 62.29MB read
Requests/sec: 17.48
Transfer/sec: 1.04MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t2 -c2 -d120s http://localhost/wordpress/index.php/test/ 50K
Running 2m test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 120.01ms 27.08ms 298.82ms 83.63%
Req/Sec 8.92 2.20 26.00 80.18%
2001 requests in 2.00m, 118.70MB read
Requests/sec: 16.66
Transfer/sec: 0.99MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t3 -c3 -d120s http://localhost/wordpress/index.php/test/ 50K
Running 2m test @ http://localhost/wordpress/index.php/test/
3 threads and 3 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 150.06ms 35.35ms 295.43ms 68.20%
Req/Sec 7.41 2.70 26.00 86.97%
2399 requests in 2.00m, 142.31MB read
Requests/sec: 19.98
Transfer/sec: 1.19MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t3 -c3 -d90s http://localhost/wordpress/index.php/test/ 50K
Running 2m test @ http://localhost/wordpress/index.php/test/
3 threads and 3 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 150.94ms 37.87ms 431.05ms 70.49%
Req/Sec 7.40 2.74 26.00 86.94%
1791 requests in 1.50m, 106.24MB read
Requests/sec: 19.88
Transfer/sec: 1.18MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t5 -c5 -d90s http://localhost/wordpress/index.php/test/ 50K
Running 2m test @ http://localhost/wordpress/index.php/test/
5 threads and 5 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 226.91ms 38.58ms 832.51ms 90.85%
```

```
Activities Terminal Mar 13 17:57
silver@ubuntu: ~/Downloads/wrk-master

Latency 120.48ms 28.95ms 225.55ms 84.49%
Req/Sec 8.92 2.38 26.00 78.96%
664 requests in 40.04s, 39.39MB read
Requests/sec: 16.58
Transfer/sec: 0.98MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t2 -c2 -d60s http://localhost/wordpress/index.php/test/ 50K
Running 1m test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 114.27ms 22.92ms 231.12ms 81.84%
Req/Sec 9.25 2.23 26.00 83.41%
1050 requests in 1.00m, 62.29MB read
Requests/sec: 17.48
Transfer/sec: 1.04MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t2 -c2 -d120s http://localhost/wordpress/index.php/test/ 50K
Running 2m test @ http://localhost/wordpress/index.php/test/
2 threads and 2 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 120.01ms 27.08ms 298.82ms 83.63%
Req/Sec 8.92 2.20 26.00 80.18%
2001 requests in 2.00m, 118.70MB read
Requests/sec: 16.66
Transfer/sec: 0.99MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t3 -c3 -d120s http://localhost/wordpress/index.php/test/ 50K
Running 2m test @ http://localhost/wordpress/index.php/test/
3 threads and 3 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 150.06ms 35.35ms 295.43ms 68.20%
Req/Sec 7.41 2.70 26.00 86.97%
2399 requests in 2.00m, 142.31MB read
Requests/sec: 19.98
Transfer/sec: 1.19MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t3 -c3 -d90s http://localhost/wordpress/index.php/test/ 50K
Running 2m test @ http://localhost/wordpress/index.php/test/
3 threads and 3 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 150.94ms 37.87ms 431.05ms 70.49%
Req/Sec 7.40 2.74 26.00 86.94%
1791 requests in 1.50m, 106.24MB read
Requests/sec: 19.88
Transfer/sec: 1.18MB
silver@ubuntu: ~/Downloads/wrk-master$ ./wrk -t5 -c5 -d90s http://localhost/wordpress/index.php/test/ 50K
Running 2m test @ http://localhost/wordpress/index.php/test/
5 threads and 5 connections
Thread Stats Avg Stdev Max +/- Stdev
Latency 226.91ms 38.58ms 832.51ms 90.85%
```

Scenario 2:



Installation

Configuration du Master

Activities Terminal Mar 14 15:42 silver@ubuntu: ~

```
silver@ubuntu: ~
Setting up ssh-import-id (5.10-0ubuntu1) ...
Attempting to convert /etc/ssh/ssh_import_id
Setting up curses-term (6.2-0ubuntu2) ...
Processing triggers for system (249.4.0ubuntu3.20) ...
Processing triggers for ufw (0.36-0ubuntu1) ...
Processing triggers for ufw (0.36-0ubuntu1) ...
Rules updated
silver@ubuntu: $ sudo ufw allow from 192.168.65.136 to any port 3306
Rules updated
silver@ubuntu: $ sudo ufw allow from 192.168.65.137 to any port 3306
Rules updated
silver@ubuntu: $ sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf
silver@ubuntu: $ sudo systemctl restart mysql
silver@ubuntu: $ sudo mysql -u root
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or 'h' for help. Type '\c' to clear the current input statement.

mysql> create user 'replica1'@'192.168.65.136' identified by 'passer';
Query OK, 0 rows affected (0.13 sec)

mysql> create user 'replica2'@'192.168.65.137' identified by 'passer';
Query OK, 0 rows affected (0.03 sec)

mysql> grant replication slave on *.* to 'replica1'@'192.168.65.136';
Query OK, 0 rows affected (0.00 sec)

mysql> grant replication slave on *.* to 'replica2'@'192.168.65.137';
Query OK, 0 rows affected (0.01 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0.00 sec)

mysql> flush tables with read lock;
Query OK, 0 rows affected (0.01 sec)

mysql> show master status \G;
*****1. row *****
      File: mysql-bin.000001
      Position: 1457
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

ERROR:
```

Activities Terminal Mar 14 15:42 silver@ubuntu: ~

```
silver@ubuntu: ~
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 0.899/0.985/1.072/0.086 ms
silver@ubuntu: ~$ scp worddate.sql silver@192.168.65.137:-
ssh: connect to host 192.168.65.137 port 22: Connection refused
silver@ubuntu: ~$ scp worddate.sql silver@192.168.65.137:-
ssh: connect to host 192.168.65.137 port 22: Connection refused
lost connection
silver@ubuntu: ~$ sudo mysql -u root
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 10
Server Version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> unlock tables;
Query OK, 0 rows affected (0.00 sec)

mysql> exit
Bye
silver@ubuntu: ~$ sudo mysql -u root
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show master \G
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '' at line 1
mysql> show master status \G
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'master' at line 1
mysql> show master status \G
*****+
1. row *****
File: mysql-bin.000001
Position: 1457
Binlog_Do_DB: wordpress
Binlog_Running_servers:
Executed_Gtid_Set:
1 row in set (0.00 sec)

mysql> show master status \G
```

```
Activities Terminal Mar 14 15:42
silver@ubuntu: ~ silver@ubuntu: ~
File: mysql-bin.000001
Position: 1457
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

? mysql> stop master;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'master' at line 1
mysql> GET_MASTER_PUBLIC_KEY=1
-> ;
> ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'GET_MASTER_PUBLIC_KEY=1' at line 1
mysql> CHANGE MASTER TO GET_MASTER_PUBLIC_KEY='';
Query OK, 0 rows affected, 2 warnings (0.03 sec)

Q mysql> show warnings;
+-----+-----+
| Level | Code | Message
+-----+-----+
| Warning | 1287 | 'CHANGE MASTER' is deprecated and will be removed in a future release. Please use CHANGE REPLICATION SOURCE instead
| Warning | 1287 | 'GET_MASTER_PUBLIC_KEY' is deprecated and will be removed in a future release. Please use GET_SOURCE_PUBLIC_KEY instead |
2 rows in set (0.00 sec)

mysql> show master status \G
*****[REDACTED]*****1. row *****
File: mysql-bin.000001
Position: 1457
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

mysql> stop master;
ERRK00 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'master' at line 1
mysql> create user 'replicaT1'@'192.168.65.136' identified with sha256_password by 'passer';
Query OK, 0 rows affected (0.02 sec)

mysql> grant replication slave on *.* to 'replicaT1'@'192.168.65.136';
-> ;ss
-> ;
-> ;
ERROR 1410 (42000): You are not allowed to create a user with GRANT
mysql> grant replication slave on *.* to 'replicaT1'@'192.168.65.136';
ERROR 1410 (42000): You are not allowed to create a user with GRANT
mysql> grant replication slave on *.* to 'replicaT1';
ERROR 1410 (42000): You are not allowed to create a user with GRANT
mysql>
mysql> grant replication slave on *.* to 'replicaT1'@'192.168.65.136';
Query OK, 0 rows affected (0.00 sec)

mysql> create user 'replicaT2'@'192.168.65.137' identified with sha256_password
by 'passer';
-> ;
```

Activities Terminal Mar 14 15:42 silver@ubuntu: ~

silver@ubuntu: ~

Executed_Gtid_Set: 1 row in set (0.00 sec)

mysql> stop master;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'master' at line 1
mysql> create user 'replica1'@'192.168.65.136' identified with sha256_password by 'passer';
Query OK, 0 rows affected (0.02 sec)

mysql> grant replication slave on *.* to 'replica1T1'@'192.168.65.136';
>;
>;
>;
ERROR 1410 (42000): You are not allowed to create a user with GRANT
mysql> grant replication slave on *.* to 'replica1W1'@'192.168.65.136';
ERROR 1410 (42000): You are not allowed to create a user with GRANT
mysql> grant replication slave on *.* to 'replica1U1';
ERROR 1410 (42000): You are not allowed to create a user with GRANT
mysql> grant replication slave on *.* to 'replica1T1'@'192.168.65.136';
Query OK, 0 rows affected (0.00 sec)

mysql> create user 'replica2'@'192.168.65.137' identified with sha256_password
by 'passer';
Query OK, 0 rows affected (0.01 sec)

mysql> show master status \G

File: mysql-bin.000001
Position: 2388
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

mysql> grant replication slave on *.* to 'replicaT2'@'192.168.65.137';
ERROR 1410 (42000): You are not allowed to create a user with GRANT
mysql> grant replication slave on *.* to 'replicaT2'@'192.168.65.137';
Query OK, 0 rows affected (0.00 sec)

mysql> show master status \G

File: mysql-bin.000001
Position: 2576
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

mysql> use wordpress;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed

```
Activities Terminal Mar 14 15:42
silver@ubuntu: ~ silver@ubuntu: ~
Position: 2576
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

mysql> use wordpress;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> create table sililillilll(id int);
Query OK, 0 rows affected (0.08 sec)

mysql> insert into sililillilll VALUES (1),(2),(3);
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> show master status \G
*************************** 1. row *****
File: mysql-bin.000001
Position: 3087
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

mysql> exit
Bye
silver@ubuntu:~$ sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf
[sudo] password for silver:
silver@ubuntu:~$ sudo mysql -u root
[sudo] password for silver:

Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 35
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type 'c' to clear the current input statement.

mysql>
mysql> show master status \G
*************************** 1. row *****
File: mysql-bin.000001
Position: 3087
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
```

```

Activities Terminal Mar 14 15:42
silver@ubuntu: ~
mysql> 1 row in set (0.00 sec)

mysql> use wordpress;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> create table silliiiiiiii(id int);
Query OK, 0 rows affected (0.08 sec)

mysql> insert into silliiiiiiii VALUES (1),(2),(3);
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> show master status \G
***** 1. row *****
File: mysql-bin.000001
Position: 3087
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

mysql> exit
Bye
silver@ubuntu:~$ sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf
[sudo] password for silver:
silver@ubuntu:~$ sudo mysql -u root
[sudo] password for silver:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 35
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> mysql> show master status \G
***** 1. row *****
File: mysql-bin.000001
Position: 3087
Binlog_Do_DB: wordpress
Binlog_Ignore_DB:
Executed_Gtid_Set:
1 row in set (0.00 sec)

mysql>

```

Configuration du Slave

```

Activities Terminal Mar 14 15:58
silver@ubuntu: ~
mysql> Setting up ncurses-term (6.2-0ubuntu2) ...
Processing triggers for systemd (245.4-4ubuntu3.20) ...
Processing triggers for man-db (2.1.1-1) ...
Processing triggers for mysql (8.0.32-0ubuntu0.20.04.2) ...
silver@ubuntu:~$ sudo mysql -u root
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database wordpress;
Query OK, 1 row affected (0.01 sec)

mysql> exit
Bye
silver@ubuntu:~$ sudo mysql wordpress < worddate.sql
silver@ubuntu:~$ sudo nano /etc/mysql/mysql.conf.d/mysqld.cnf
silver@ubuntu:~$ sudo systemctl restart MySQL
[sudo] password for silver:
silver@ubuntu:~$ sudo mysql -u root
[sudo] password for silver:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> stop replica;
Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> CHANGE REPLICATION SOURCE TO
-> SOURCE_HOST = '192.168.65.135',
-> SOURCE_USER = 'replicat2',
-> SOURCE_PASSWORD = 'passer',
-> SOURCE_LOG_FILE = 'mysql-bin.000001',
-> SOURCE_LOG_POS = 3576;
Query OK, 0 rows affected, 2 warnings (0.03 sec)

mysql> start replica;
Query OK, 0 rows affected (0.00 sec)

mysql> show replica status\G
***** 1. row *****
    Replica To State: Waiting for source to send event

```

```
Activities Terminal Mar 14 15:38
silver@ubuntu:~$ sudo systemctl restart mysql
[sudo] password for silver:
silver@ubuntu:~$ sudo mysql -u root
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> stop replica;
Query OK, 0 rows affected, 1 warning (0.00 sec)

mysql> CHANGE REPLICATION SOURCE TO
    -> SOURCE_HOST = '192.168.65.135',
    -> SOURCE_USER = 'silverctz',
    -> SOURCE_PASSWORD = 'passer',
    -> SOURCE_LOG_FILE = 'mysql-bin.000001',
    -> SOURCE_LOG_POS = 2576;
Query OK, 0 rows affected, 2 warnings (0.03 sec)

mysql> start replica;
Query OK, 0 rows affected (0.00 sec)

mysql> show replica status\G;
***** 1. row *****
Replica_IO_State: Waiting for source to send event
Source_Host: 192.168.65.135
Source_Port: 3306
Connect_Retry: 60
Source_Log_File: mysql-bin.000001
Read_Source_Log_Pos: 2576
Relay_Log_File: mysql-relay-bin.000002
Relay_Log_Pos: 326
Relay_Skip_Log_Pos: mysql-bin.000001
Replica_IO_Running: Yes
Replica_SQL_Running: Yes
Replicate_Do_DB:
Replicate_Ignore_DB:
Replicate_Do_Table:
Replicate_Ignore_Table:
Replicate_Wild_Do_Table:
Replicate_Wild_Ignore_Table:
Last_Error: 0
Last_Error:
Last_Error:
Skip_Counter: 0
Exec_Source_Log_Pos: 2576
Relay_Log_Space: 536
Until_Condition: None
Until_Log_File:
Until_Log_Pos: 0
Source_SSL_Allowed: No
Source_SSL_CACert:
Source_SSL_CAPath:
Source_SSL_Cert:
Source_SSL_Cipher:
Source_SSL_Key:
Seconds_Behind_Source: 0
Source_SSL_Verify_Server_Cert: No
Last_IO_Error: 0
Last_IO_Error:
Last_SQL_Error: 0
Last_SQL_Error:
Replicate_Ignore_Server_Id:
Source_Server_Id: 1
Source_UUID: 4ce491f1-b2da-11ed-994a-000c294e6b94
Source_Info_File: mysql.slave_master_info
SQL_Remaining_Delay: NULL
Replica_SQL_Running_State: Replica has read all relay log; waiting for more updates
Source_Retry_Count: 86400
Source_Retry_Delay:
Last_IO_Error_Timestamp:
Last_SQL_Error_Timestamp:
Source_SSL_Cert:
Source_SSL_CAPath:
Source_SSL_Cipher:
Retrieved_Gtid_Set:
Executed_Gtid_Set:
Auto_Position: 0
Replicate_Rewrite_DB:
Channel_Name:
Source_SQL_Verion:
Source_public_key_path:
Get_Source_public_key: 0
Network_Namespace: 0
1 row in set (0.00 sec)

ERROR:
No query specified

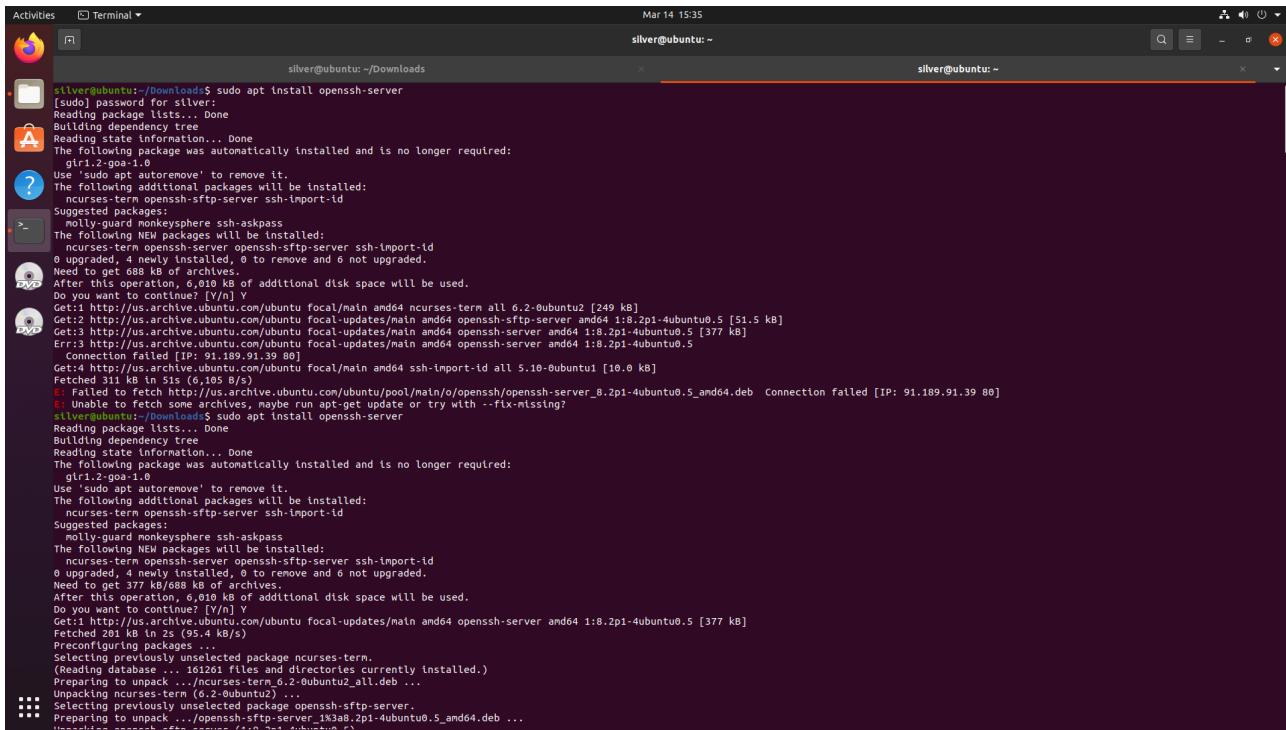
mysql> show replica status\G;
```

```
Activities Terminal Mar 14 15:38
silver@ubuntu:~$ show replica status\G;
***** 1. row *****
Replica_SQL_Running: Yes
Replicate_Do_DB:
Replicate_Ignore_DB:
Replicate_Do_Table:
Replicate_Ignore_Table:
Replicate_Wild_Do_Table:
Replicate_Wild_Ignore_Table:
Last_Error: 0
Last_Error:
Skip_Counter: 0
Exec_Source_Log_Pos: 2576
Relay_Log_Space: 536
Until_Condition: None
Until_Log_File:
Until_Log_Pos: 0
Source_SSL_Allowed: No
Source_SSL_CACert:
Source_SSL_CAPath:
Source_SSL_Cert:
Source_SSL_Cipher:
Source_SSL_Key:
Seconds_Behind_Source: 0
Source_SSL_Verify_Server_Cert: No
Last_IO_Error: 0
Last_IO_Error:
Last_SQL_Error: 0
Last_SQL_Error:
Replicate_Ignore_Server_Id:
Source_Server_Id: 1
Source_UUID: 4ce491f1-b2da-11ed-994a-000c294e6b94
Source_Info_File: mysql.slave_master_info
SQL_Remaining_Delay: NULL
Replica_SQL_Running_State: Replica has read all relay log; waiting for more updates
Source_Retry_Count: 86400
Source_Retry_Delay:
Last_IO_Error_Timestamp:
Last_SQL_Error_Timestamp:
Source_SSL_Cert:
Source_SSL_CAPath:
Source_SSL_Cipher:
Retrieved_Gtid_Set:
Executed_Gtid_Set:
Auto_Position: 0
Replicate_Rewrite_DB:
Channel_Name:
Source_SQL_Verion:
Source_public_key_path:
Get_Source_public_key: 0
Network_Namespace: 0
1 row in set (0.00 sec)

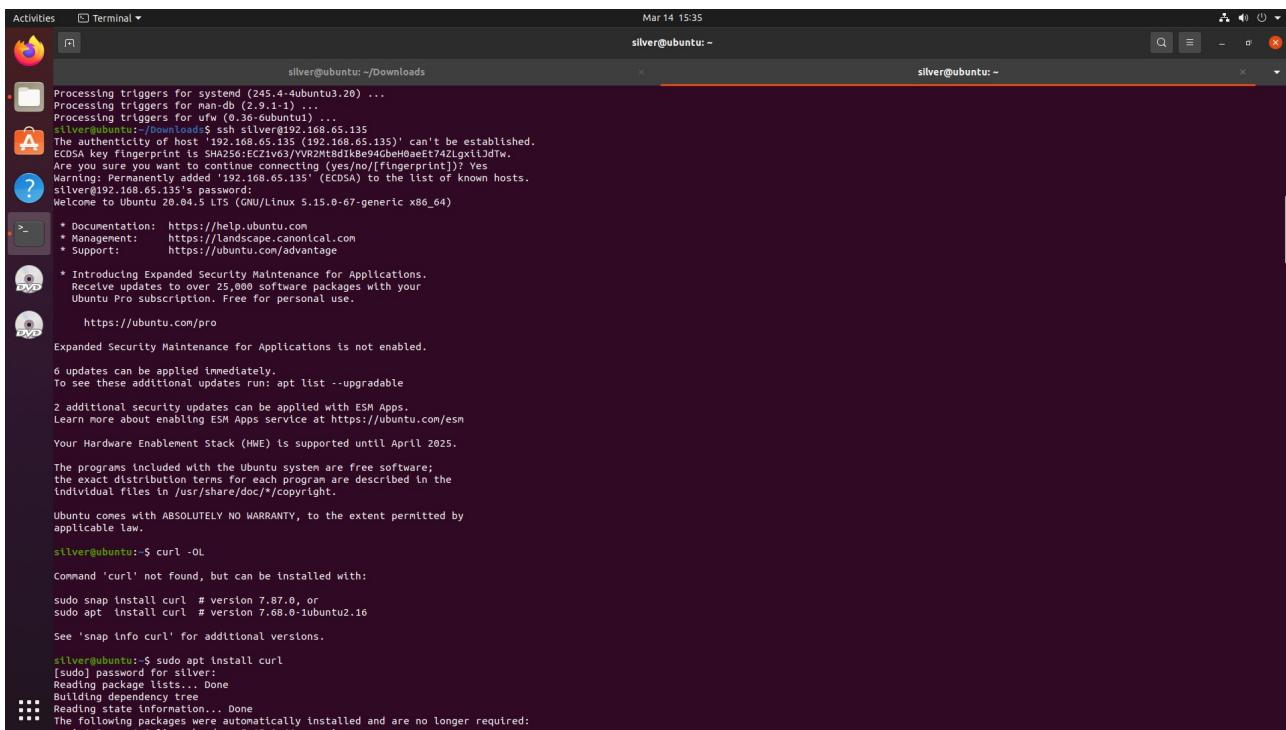
ERROR:
No query specified

mysql> show replica status\G;
```

Configuration du Proxy



```
silver@ubuntu:~/Downloads$ sudo apt install openssh-server
[sudo] password for silver:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
glib1.2-goa-1.0
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
ncurses-term openssh-sftp-server ssh-import-id
Suggested packages:
molly-guard monkeysphere ssh-askpass
The following NEW packages will be installed:
ncurses-term openssh-server ssh-import-id
0 upgraded, 4 newly installed, 0 to remove and 6 not upgraded.
Need to get 688 kB of archives.
After this operation, 0,010 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://us.archive.ubuntu.com/ubuntu focal/main amd64 ncurses-term all 6.2-0ubuntu2 [249 kB]
Get:2 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-sftp-server amd64 1:8.2p1-4ubuntu0.5 [51.5 kB]
Get:3 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-server amd64 1:8.2p1-4ubuntu0.5 [377 kB]
Err:3 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-server amd64 1:8.2p1-4ubuntu0.5
  Connection failed [IP: 91.189.91.39 80]
Get:4 http://us.archive.ubuntu.com/ubuntu focal/main amd64 ssh-import-id all 5.10-0ubuntu1 [10.0 kB]
Fetched 311 kB in 5s (6,105 B/s)
E: Failed to fetch http://us.archive.ubuntu.com/ubuntu/main/o/openssh/openssh-server_8.2p1-4ubuntu0.5_amd64.deb Connection failed [IP: 91.189.91.39 80]
E: Unable to fetch some archives, maybe run apt-get update or try with --fix-missing?
silver@ubuntu:~/Downloads$ sudo apt install openssh-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following package was automatically installed and is no longer required:
glib1.2-goa-1.0
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
ncurses-term openssh-sftp-server ssh-import-id
Suggested packages:
molly-guard monkeysphere ssh-askpass
The Following NEW packages will be installed:
ncurses-term openssh-server ssh-import-id
0 upgraded, 4 newly installed, 0 to remove and 6 not upgraded.
Need to get 688 kB of archives.
After this operation, 0,010 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 openssh-server amd64 1:8.2p1-4ubuntu0.5 [377 kB]
Fetched 201 kB in 2s (95.4 kB/s)
Preconfiguring packages...
Selecting previously unselected package ncurses-term.
(Reading database ... (selecting previously unselected packages)
Preparing to unpack .../ncurses-term_6.2-0ubuntu2_all.deb ...
Unpacking ncurses-term (6.2-0ubuntu2) ...
Selecting previously unselected package openssh-sftp-server.
Preparing to unpack .../openssh-sftp-server_1x3a8.2p1-4ubuntu0.5_amd64.deb ...
Unpacking openssh-sftp-server (1x3a8.2p1-4ubuntu0.5)
```



```
silver@ubuntu:~/Downloads$ curl -OL
curl: 'curl' not found, but can be installed with:
sudo snap install curl # version 7.67.0, or
sudo apt install curl # version 7.68.0-0ubuntu2.16
See 'snap info curl' for additional versions.
silver@ubuntu:~$ sudo apt install curl
[sudo] password for silver:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
glib1.2-goa-1.0
Use 'sudo apt autoremove' to remove it.
```

Activities Terminal Mar 14 15:35 silver@ubuntu: ~

Preparing to unpack .../curl_7.68.0-1ubuntu2.16_amd64.deb ...
Unpacking curl (7.68.0-1ubuntu2.16) ...
Setting up curl (7.68.0-1ubuntu2.16) ...
Processing triggers for man-db (2.9.1-2) ...
silver@ubuntu: ~\$ curl -O https://gist.github.com/lrefed/77ddbe301c72535301ae7af9f968322/raw/e5e40b03333a3c148b78aa348fd2cd5b5dbb36e4d/addition_to_sys.sql
 % Total % Received =Xferd Average Speed Time Time Current
 Total Speed Left Speed
0 0 0 0 0 0 0 0 0 0
100 2647 100 2647 0 0 1759 0 0:00:01 0:00:01 0:00:01
silver@ubuntu: ~\$ ls
addition_to_sys.sql Downloads Music Templates
Desktop Pictures Videos
Documents 'not de passe wordpress' Public wordnote.sql
silver@ubuntu: ~\$ sudo mysql -u root -p < addition_to_sys.sql
Enter password:
silver@ubuntu: ~\$ sudo mysql -u root
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 37
Server version: 8.0.32-ubuntu0.20.04.2 (Ubuntu)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create user 'monitor'@'%' identified by 'passer';
Query OK, 0 rows affected (0.13 sec)

mysql> GRANT SELECT ON sys.* TO 'monitor'@'%';
Query OK, 0 rows affected (0.01 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0.84 sec)

mysql> UPDATE global_variables SET variable_value='monitor' WHERE variable_name='mysql-monitor_username';
ERROR 1046 (3D000): No database selected
mysql> CREATE USER 'playgrounduser'@'%' IDENTIFIED BY 'passer';
Query OK, 0 rows affected (0.02 sec)

mysql> GRANT ALL PRIVILEGES ON playground.* TO 'playgrounduser'@'%';
Query OK, 0 rows affected (0.00 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0.00 sec)

mysql> exit;
Bye
silver@ubuntu: ~\$ mysql -u playgrounduser -p
Command 'mysql' not found, did you mean:

```
Activities Terminal Mar 14 15:35 silver@ubuntu: ~
silver@ubuntu: ~/Downloads
command 'mysql' from deb mysql-client-core-8.0 (8.0.32-0ubuntu0.20.04.2)
command 'mysql' from deb mariadb-client-core-10.3 (1:10.3.38-0ubuntu0.20.04.1)

Try: sudo apt install <deb name>

silver@ubuntu: ~ mysql -u playgrounduser -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 167
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

silver@ubuntu: ~ mysql> show tables from playground;
+-----+
| Tables_in_playground |
+-----+
| information_schema |
| performance_schema |
+-----+
2 rows in set (0.12 sec)

mysql> SHOW TABLES FROM information_schema;
+-----+
| Tables_in_information_schema |
+-----+
| ADMINISTRABLE_ROLE_AUTHORIZATIONS |
| APPLICABLE_ROLES |
| CHARACTER_SETS |
| CHECK_CONSTRAINTS |
| COLLATIONS |
| COLLATION_CHARACTER_SET_APPLICABILITY |
| COLUMNS |
| COLUMNS_EXTENSIONS |
| COLUMN_PRIVILEGES |
| COLUMN_STATISTICS |
| ENABLED_ROLES |
| ENGINES |
| EVENTS |
| FILES |
| INNODB_BUFFER_PAGE |
| INNODB_BUFFER_PAGE_LRU |
+-----+
```

```
Activities Terminal Mar 14 15:36
silver@ubuntu: ~/Downloads silver@ubuntu: ~
silver@ubuntu:~$ sudo mysql -u playgrounduser2 -p < addition_to_sys.sql
Enter password:
ERROR 1044 (42000) at line 1: Access denied for user 'playgrounduser'@'%' to database 'sys'
silver@ubuntu:~$ nano addition_to_sys.sql
silver@ubuntu:~$ mysql -u playgrounduser -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 477
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database playground;
Query OK, 1 row affected (0.05 sec)

mysql> create table equipement;
ERROR 1046 (30000): No database selected
mysql> create table equipement(int id, varchar(32) type, int quant, varchar(32) color);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'int id, varchar(32) type, int quant, varchar(32) color)' at line 1
mysql>
mysql> create table equipement(id int, type varchar(32), quant int, color varchar(32));
ERROR 1046 (30000): No database selected
mysql> use playground;
Database changed
mysql> create table equipement(id int, type varchar(32), quant int, color varchar(32));
Query OK, 0 rows affected (0.19 sec)

mysql> insert into equipement values
-> (3,'slide',2,'blue'),
-> (10,'swing',10,'yellow'),
-> (17,'seesaw',3,'green');
Query OK, 3 rows affected (0.16 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM playground.equipement;
+----+----+----+----+
| id | type | quant | color |
+----+----+----+----+
|   3 | slide |     2 | blue  |
|  10 | swing |    10 | yellow |
|  17 | seesaw |    3 | green |
+----+----+----+----+
3 rows in set (0.03 sec)

mysql> INSERT INTO playground.equipement values (10, 'slide', 1, 'red');

```

```
Activities Terminal Mar 14 15:36
silver@ubuntu: ~/Downloads silver@ubuntu: ~
silver@ubuntu:~$ sudo mysql -u playgrounduser2 -p < addition_to_sys.sql
Enter password:
ERROR 1044 (42000) at line 1: Access denied for user 'playgrounduser'@'%' to database 'sys'
silver@ubuntu:~$ nano addition_to_sys.sql
silver@ubuntu:~$ mysql -u playgrounduser -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 477
Server version: 8.0.32-0ubuntu0.20.04.2 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database playground;
Query OK, 1 row affected (0.05 sec)

mysql> create table equipement;
ERROR 1046 (30000): No database selected
mysql> create table equipement(int id, varchar(32) type, int quant, varchar(32) color);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'int id, varchar(32) type, int quant, varchar(32) color)' at line 1
mysql>
mysql> create table equipement(id int, type varchar(32), quant int, color varchar(32));
ERROR 1046 (30000): No database selected
mysql> use playground;
Database changed
mysql> create table equipement(id int, type varchar(32), quant int, color varchar(32));
Query OK, 0 rows affected (0.19 sec)

mysql> insert into equipement values
-> (3,'slide',2,'blue'),
-> (10,'swing',10,'yellow'),
-> (17,'seesaw',3,'green');
Query OK, 3 rows affected (0.16 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM playground.equipement;
+----+----+----+----+
| id | type | quant | color |
+----+----+----+----+
|   3 | slide |     2 | blue  |
|  10 | swing |    10 | yellow |
|  17 | seesaw |    3 | green |
+----+----+----+----+
3 rows in set (0.03 sec)

mysql> INSERT INTO playground.equipement values (10, 'slide', 1, 'red');

```

```

Activities Terminal Mar 14 15:36
silver@ubuntu: ~/Downloads
silver@ubuntu: ~

mysql> create database playground;
Query OK, 1 row affected (0.05 sec)

mysql> create table equipement(id int, type varchar(32) type, int quant, varchar(32) color);
ERROR 1046 (3D000): No database selected
mysql> create table equipement(id int, type varchar(32), quant int, color varchar(32));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'int id, varchar(32) type, int quant, varchar(32)' at line 1
mysql> create table equipement(id int, type varchar(32), quant int, color varchar(32));
ERROR 1046 (3D000): No database selected
mysql> use playground;
Database changed
mysql> create table equipement(id int, type varchar(32), quant int, color varchar(32));
Query OK, 0 rows affected (0.19 sec)

mysql> insert into equipement values
    -> (3,'slide',2,'blue'),
    -> (10,'swing',10,'yellow'),
    -> (17,'seesaw',3,'green');
Query OK, 3 rows affected (0.16 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM playground.equipement;
+----+-----+-----+-----+
| id | type | quant | color |
+----+-----+-----+-----+
| 3  | slide | 2   | blue  |
| 10 | swing | 10  | yellow |
| 17 | seesaw | 3  | green |
+----+-----+-----+-----+
3 rows in set (0.03 sec)

mysql> INSERT INTO playground.equipement values ('9','drill',5,'red');
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM playground.equipement;
+----+-----+-----+-----+
| id | type | quant | color |
+----+-----+-----+-----+
| 3  | slide | 2   | blue  |
| 10 | swing | 10  | yellow |
| 17 | seesaw | 3  | green |
| 9   | drill | 5   | red   |
+----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>

```

```

Activities Terminal Mar 14 15:36
silver@ubuntu: ~/Downloads
silver@ubuntu: ~

silver@ubuntu:~/Downloads$ dpkg -l proxysql_2.5.1-ubuntu20_amd64.deb
dpkg: error: requested operation requires superuser privilege
[sudo] password for silver:
Selecting previously unselected package proxysql.
(Reading database ... 161248 files and directories currently installed.)
Preparing to unpack proxysql_2.5.1-ubuntu20_amd64.deb ...
Unpacking proxysql (2.5.1) ...
Setting up proxysql (2.5.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/proxysql.service → /lib/systemd/system/proxysql.service.

silver@ubuntu:~/Downloads$ sudo apt update
Hit:1 http://us.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://us.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:3 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:4 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [2,045 kB]
Get:5 http://security.ubuntu.com/ubuntu focal-security/main i386 Packages [108 kB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [2,424 kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/restricted i386 Packages [569 kB]
Get:8 http://security.ubuntu.com/ubuntu focal-security/main Translation-en [333 kB]
Get:9 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Metadata [60.0 kB]
Get:10 http://security.ubuntu.com/ubuntu focal-security/universe amd64 DEP-11 Metadata [94.8 kB]
Get:11 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 DEP-11 Metadata [940 kB]
Get:12 http://us.archive.ubuntu.com/ubuntu focal-updates/main i386 Packages [196 kB]
Get:13 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 Metadata [224 kB]
Get:14 http://us.archive.ubuntu.com/ubuntu focal-updates/main amd64 C-n-f Metadata [16.2 kB]
Get:15 http://us.archive.ubuntu.com/ubuntu focal-updates/universe i386 Packages [718 kB]
Get:16 http://us.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [1,038 kB]
Get:17 http://us.archive.ubuntu.com/ubuntu focal-updates/universe amd64 DEP-11 Metadata [409 kB]
Get:18 http://us.archive.ubuntu.com/ubuntu focal-updates/universe amd64 C-n-f Metadata [23.8 kB]
Get:19 http://us.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 DEP-11 Metadata [940 B]
Get:20 http://us.archive.ubuntu.com/ubuntu focal-backports/main amd64 DEP-11 Metadata [7,988 B]
Get:21 http://us.archive.ubuntu.com/ubuntu focal-backports/universe amd64 DEP-11 Metadata [30.6 kB]
Fetched 9,176 kB in 2min 43s (56.4 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
6 packages can be upgraded. Run 'apt list --upgradable' to see them.
silver@ubuntu:~/Downloads$ sudo systemctl start proxysql
silver@ubuntu:~/Downloads$ mysql -u admin -p -h 127.0.0.1 -P 6032 --prompt="ProxySQLAdmin> "
> s
> exit
> ;
> ^C
silver@ubuntu:~/Downloads$ mysql -u admin -p -h 127.0.0.1 -P 6032 --prompt='ProxySQLAdmin> '
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.5.30 (ProxySQL Admin Module)

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affiliates. Other names may be trademarks of their respective

```

```
Activities Terminal Mar 14 15:36
silver@ubuntu: ~/Downloads
> ^C
silver@ubuntu:~/Downloads$ mysql -u admin -p -h 127.0.0.1 -P 6032 --prompt='ProxySQLAdmin> '
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.5.30 (ProxySQL Admin Module)

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Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

ProxySQLAdmin> UPDATE global_variables SET variable_value='admin:passer' WHERE variable_name='admin-admin_credentials';
Query OK, 1 row affected (0.00 sec)

ProxySQLAdmin> LOAD ADMIN VARIABLES TO RUNTIME;
Query OK, 0 rows affected (0.00 sec)

ProxySQLAdmin> SAVE ADMIN VARIABLES TO DISK;
Query OK, 46 rows affected (0.12 sec)

ProxySQLAdmin> UPDATE global_variables SET variable_value='monitor' WHERE variable_name='mysql-monitor_username';
Query OK, 1 row affected (0.01 sec)

ProxySQLAdmin> LOAD ADMIN VARIABLES TO RUNTIME;
Query OK, 0 rows affected (0.00 sec)

ProxySQLAdmin> SAVE ADMIN VARIABLES TO DISK;
Query OK, 46 rows affected (0.01 sec)

ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: 7 values for 8 columns
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: CHECK constraint failed: backup_writer_hostgroup=>0 AND backup_writer_hostgroup=>writer_hostgroup
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,4,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: CHECK constraint failed: offline_hostgroup=>writer_hostgroup AND offline_hostgroup=>reader_hostgroup AND backup_writer_hostgroup=>offline_hostgroup AND offline_h ostgroup=>0
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: 9 values for 8 columns
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: CHECK constraint failed: backup_writer_hostgroup=>0 AND backup_writer_hostgroup=>writer_hostgroup
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (2,4,3,1,1,3,1,100);
Query OK, 1 row affected (0.00 sec)
```

```
Activities Terminal Mar 14 15:36
silver@ubuntu: ~/Downloads
silver@ubuntu: ~/Downloads
silver@ubuntu: ~
silver@ubuntu: ~/Downloads
ProxySQLAdmin> UPDATE global_variables SET variable_value='monitor' WHERE variable_name='mysql-monitor_username';
Query OK, 1 row affected (0.01 sec)

ProxySQLAdmin> LOAD ADMIN VARIABLES TO RUNTIME;
Query OK, 0 rows affected (0.00 sec)

ProxySQLAdmin> SAVE ADMIN VARIABLES TO DISK;
Query OK, 46 rows affected (0.01 sec)

ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: 7 values for 8 columns
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: CHECK constraint failed: backup_writer_hostgroup=>0 AND backup_writer_hostgroup=>writer_hostgroup
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,4,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: CHECK constraint failed: offline_hostgroup=>writer_hostgroup AND offline_hostgroup=>reader_hostgroup AND backup_writer_hostgroup=>offline_hostgroup AND offline_h ostgroup=>0
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: 9 values for 8 columns
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: CHECK constraint failed: backup_writer_hostgroup=>0 AND backup_writer_hostgroup=>writer_hostgroup
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions _behind) VALUES (2,4,3,1,1,3,1,100);
Query OK, 1 row affected (0.00 sec)

ProxySQLAdmin> Insert into mysql_servers(hostgroup_id, hostname, port) VALUES ('1','192.168.65.135', 3306);
Query OK, 1 row affected (0.00 sec)

ProxySQLAdmin> LOAD MYSQL SERVERS TO RUNTIME;
Query OK, 0 rows affected (0.01 sec)

ProxySQLAdmin> SAVE MYSQL SERVERS TO DISK;
Query OK, 0 rows affected (0.08 sec)

ProxySQLAdmin> SELECT hostgroup_id, hostname, status FROM runtime_mysql_servers;
+-----+-----+-----+
| hostgroup_id | hostname | status |
+-----+-----+-----+
| 1            | 192.168.65.135 | ONLINE |
+-----+-----+-----+
1 row in set (0.01 sec)

ProxySQLAdmin> show databases;
+-----+-----+
| seq | name   | file    |
+-----+-----+
| 0  | main   |          |
| 2  | disk   | /var/lib/proxysql/proxysql.db |
+-----+-----+
```

```

Activities Terminal Mar 14 15:36
silver@ubuntu: ~/Downloads silver@ubuntu: ~
silver@ubuntu: ~/Downloads silver@ubuntu: ~
silver@ubuntu: ~

ERROR 1045 (28000): ProxySQL Admin Error: 9 values for 8 columns
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions
,_behind) VALUES (1,1,2,1,1,1,1,100);
ERROR 1045 (28000): ProxySQL Admin Error: CHECK constraint failed: backup_writer_hostgroup>=0 AND backup_writer_hostgroup<=>writer_hostgroup
ProxySQLAdmin> INSERT INTO mysql_group_replication_hostgroups (writer_hostgroup, backup_writer_hostgroup, reader_hostgroup, offline_hostgroup, active, max_writers, writer_is_also_reader, max_transactions
,_behind) VALUES (2,4,3,1,1,3,1,100);
Query OK, 1 row affected (0.00 sec)

ProxySQLAdmin> Insert into mysql_servers(hostgroup_id, hostname, port) VALUES (1,'192.168.65.135', 3306);
Query OK, 1 row affected (0.00 sec)

ProxySQLAdmin> LOAD MYSQL SERVERS TO RUNTIME;
Query OK, 0 rows affected (0.01 sec)

ProxySQLAdmin> SAVE MYSQL SERVERS TO DISK;
Query OK, 0 rows affected (0.08 sec)

ProxySQLAdmin> SELECT hostgroup_id, hostname, status FROM runtime_mysql_servers;
+-----+-----+-----+
| hostgroup_id | hostname | status |
+-----+-----+-----+
| 1            | 192.168.65.135 | ONLINE |
+-----+-----+-----+
1 row in set (0.01 sec)

ProxySQLAdmin> show databases;
+-----+-----+
| seq | name   | file      |
+-----+-----+
| 0  | main   |           |
| 2  | disk   | /var/lib/proxysql/proxysql.db |
| 3  | stats  |           |
| 4  | monitor |           |
| 5  | stats_history | /var/lib/proxysql/proxysql_stats.db |
+-----+-----+
5 rows in set (0.00 sec)

ProxySQLAdmin> INSERT INTO mysql_users(username, password, default_hostgroup) VALUES ('playgrounduser', 'passer', 1);
Query OK, 1 row affected (0.00 sec)

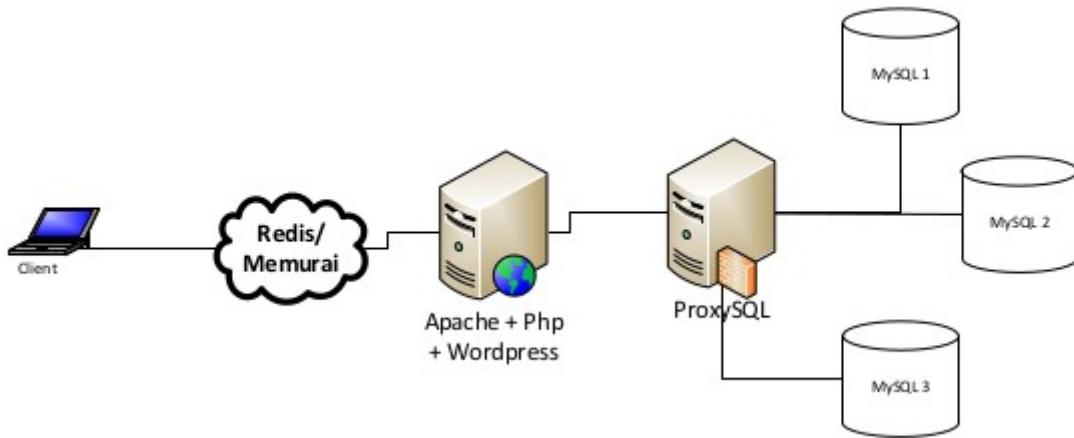
ProxySQLAdmin> LOAD MYSQL USERS TO RUNTIME;
Query OK, 0 rows affected (0.00 sec)

ProxySQLAdmin> LOAD MYSQL USERS TO DISK;
ERROR 1045 (28000): ProxySQL Admin Error: near "LOAD": syntax error
ProxySQLAdmin> SAVE MYSQL USERS TO DISK;
Query OK, 0 rows affected (0.01 sec)

ProxySQLAdmin> SELECT * FROM playground.equipement;
ERROR 1045 (28000): ProxySQL Admin Error: no such table: playground.equipement
ProxySQLAdmin> []

```

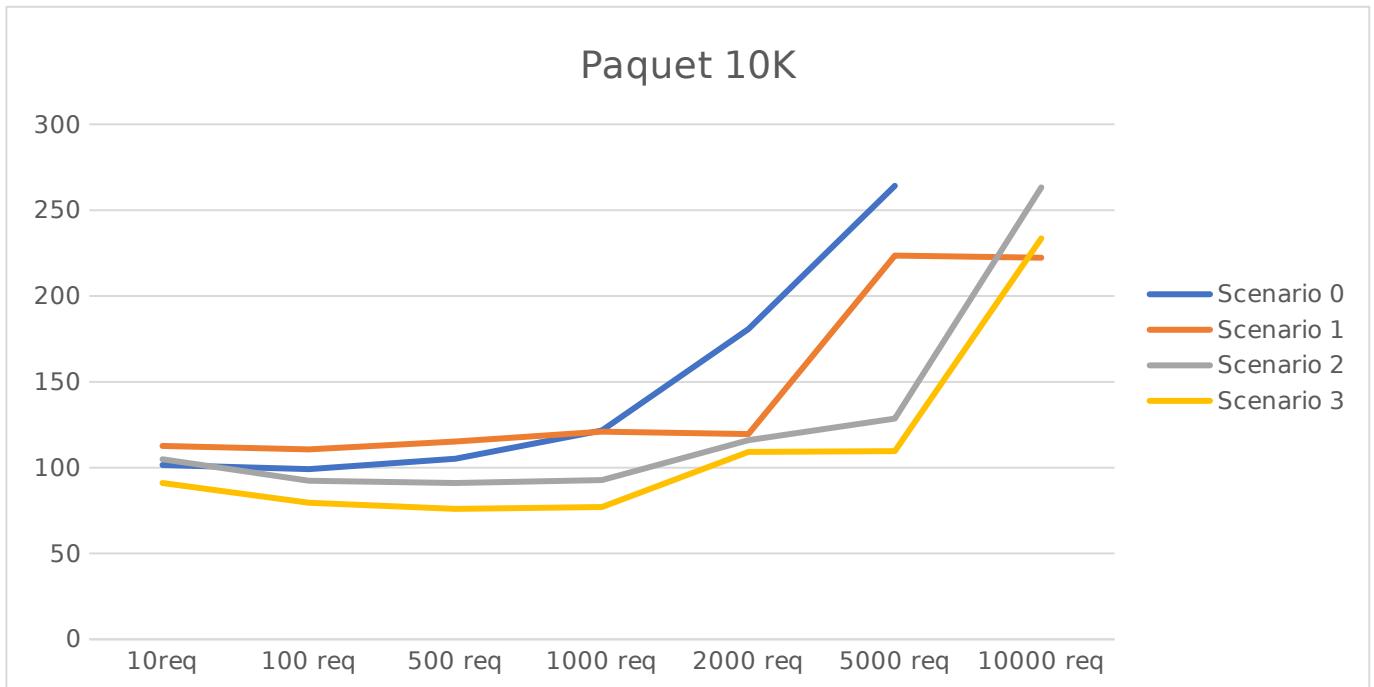
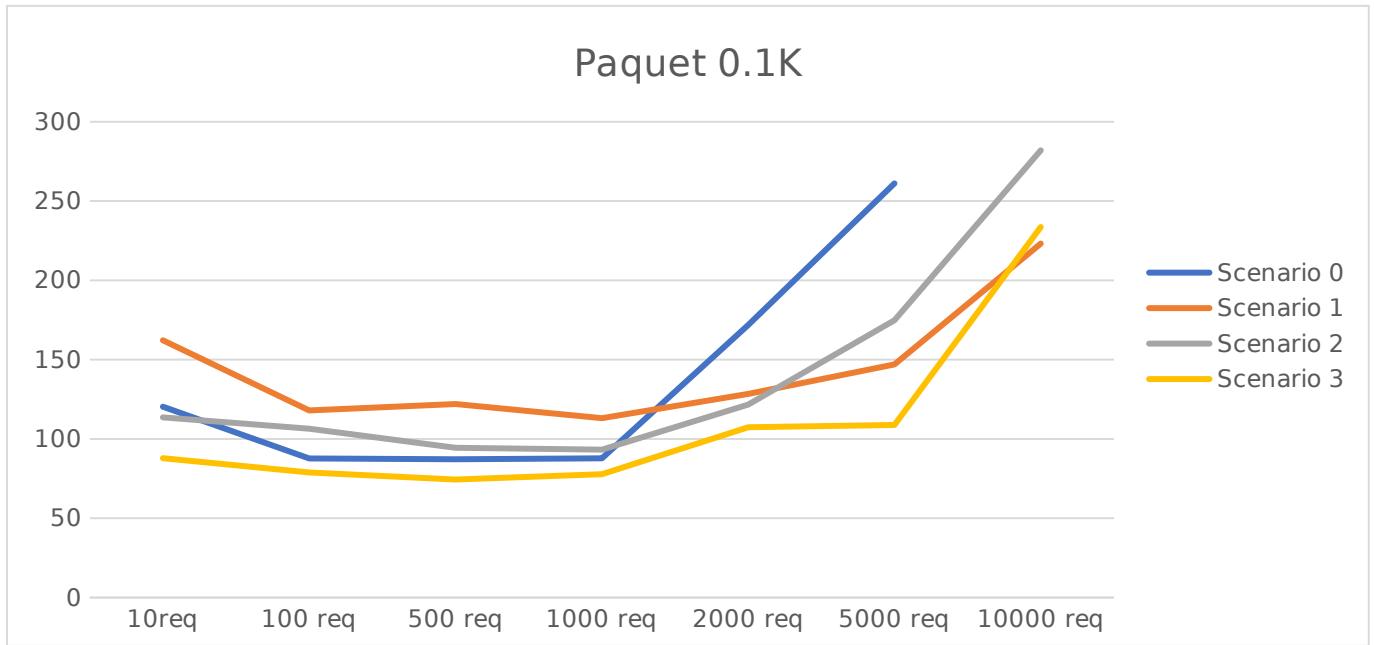
Scenario 3 :

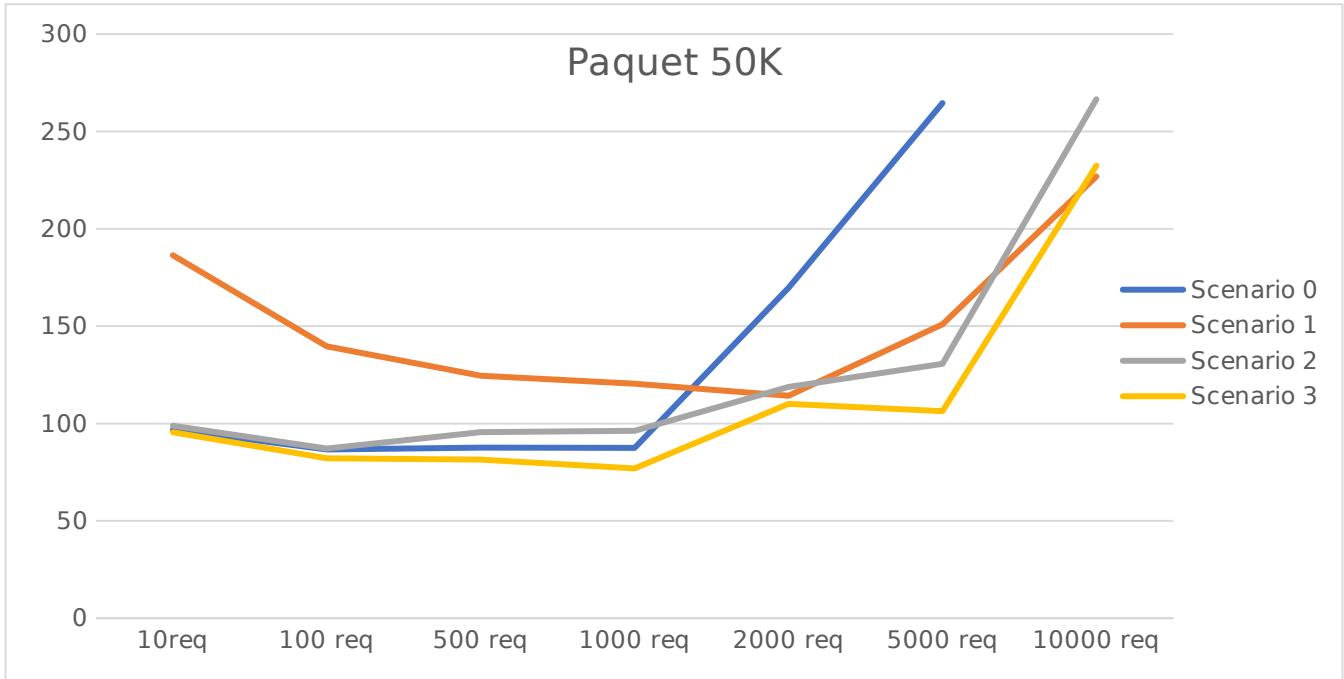


Installation

On garde la configuration du scenario 2 et on ajoute à cette configuration l'activation du serveur cache REDIS pour stocker les nombreuses requêtes entrant avant leur transfert vers le serveur Web (la configuration du serveur REDIS est illustrée dans le scenario1).

V. GRAPHES D'ÉVOLUTION DES TEMPS DE RÉPONSE





VI. ANALYSE STATISTIQUE DES DONNÉES OBTENUES

1. Pour des paquets de taille **0.1K**, on voit à travers les courbes d'évolution que pour des nombres de requêtes inférieurs à 1000, on a :

Temps_de_réponses(Scenario 1) > Temps_de_réponses(Scenario 2) > Temps_de_réponses(Scenario 0) > Temps_de_réponses(Scenario 3).

Et pour des nombres de requêtes environ supérieurs à 1000, on a :

Temps_de_réponses(Scenario 0) > Temps_de_réponses(Scenario 2) > Temps_de_réponses(Scenario 1) > Temps_de_réponses(Scenario 3).

2. Pour des paquets de taille **10K**, on voit à travers les courbes d'évolution que pour des nombres de requêtes inférieurs à 1000, on a :

Temps_de_réponses(Scenario 1) > Temps_de_réponses(Scenario 0) > Temps_de_réponses(Scenario 2) > Temps_de_réponses(Scenario 3).

Et pour des nombres de requêtes environ supérieurs à 1000, on a :

Temps_de_réponses(Scenario 0) > Temps_de_réponses(Scenario 1) > Temps_de_réponses(Scenario 2) > Temps_de_réponses(Scenario 3).

3. Pour des paquets de taille **50K**, on voit à travers les courbes d'évolution que pour des nombres de requêtes inférieurs à 1000, on a :

Temps_de_réponses(Scenario 1) > Temps_de_réponses(Scenario 2) > Temps_de_réponses(Scenario 0) > Temps_de_réponses(Scenario 3).

Et pour des nombres de requêtes environ supérieurs à 1000, on a :

Temps_de_réponses(Scenario 0) > Temps_de_réponses(Scenario 1) > Temps_de_réponses(Scenario 2) > Temps_de_réponses(Scenario 3).

VII. CONCLUSION

En définitive, on constate que le meilleur scenario est celui qui implémente un serveur cache afin de stocker les nombreuses requêtes entrant avant leur transfert vers le serveur Web et qui utilise des bases de données distribuées. C'est le cas du (scenario 3) car avec ce dernier on obtient des temps de réponses plus petites que les autres cas de figure. Donc pour un système performant, il est conseillé d'implémenter le scenario 3 même s'il demande plus de ressources car il faut au moins 3 machines pour sa réalisation.