

Install Zabbix di Web Server

1. Update repository untuk memperbarui paket perangkat lunak pada sistem linux

```
root@webserver-ubuntu: /home/webserver
root@webserver-ubuntu:/home/webserver# apt-get update
```

2. Mengunduh file Zabbix menggunakan perintah wget “**wget https://repo.zabbix.com/zabbix/6.2/ubuntu/pool/main/z/zabbix-release/zabbix-release_6.2-2%2Bubuntu22.04_all.deb**”

```
root@webserver-ubuntu: /home/webserver
root@webserver-ubuntu:/home/webserver# wget https://repo.zabbix.com/zabbix/6.2/ubuntu/pool/main/z/zabbix-release/zabbix-release_6.2-2%2Bubuntu22.04_all.deb
```

3. Setelah berhasil mengunduh file tersebut, lalu install menggunakan perintah `dpkg -i` untuk menginstall dan memanipulasi paket biner Debian dengan ekstensi file `.deb`

```
root@webserver-ubuntu: /home/webserver
root@webserver-ubuntu:/home/webserver# ls
zabbix-release_6.2-2ubuntu22.04_all.deb
root@webserver-ubuntu:/home/webserver# dpkg -i zabbix-release_6.2-2ubuntu22.04_all.deb
(Reading database ... 113410 files and directories currently installed.)
Preparing to unpack zabbix-release_6.2-2ubuntu22.04_all.deb ...
Unpacking zabbix-release (1:6.2-2ubuntu22.04) over (4.2-1ubuntu1) ...
Setting up zabbix-release (1:6.2-2ubuntu22.04) ...
Installing new version of config file /etc/apt/sources.list.d/zabbix.list ...
Installing new version of config file /etc/apt/trusted.gpg.d/zabbix-official-repo.gpg ...
root@webserver-ubuntu:/home/webserver#
```

4. Setelah menginstall Zabbix lalu update paket repositorynya

```
root@webserver-ubuntu: /home/webserver
root@webserver-ubuntu:/home/webserver# apt-get update
```

5. Setelah update paket kita akan install zabbix server, frontend, dan agent, gunakan perintah “**apt install zabbix-server-mysql zabbix-frontend-php zabbix-apache-conf zabbix-sql-scripts zabbix-agent**”

```
root@webserver-ubuntu: /home/webserver
root@webserver-ubuntu:/home/webserver# apt install zabbix-server-mysql zabbix-frontend-php zabbix-apache-conf zabbix-sql-scripts zabbix-agent
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  fonts-dejavu fonts-dejavu-extra fping libevent-2.1-7 libmodbus5 libodbc2 libopenipmi0 libsensors-config libsensors5 libsnmp-base libsnmp40 php-bcmath php8.1-bcmath snmpd
Suggested packages:
  odbc-postgresql tdsodbc lm-sensors snmp-mibs-downloader snmptrapd zabbix-nginx-conf virtual-mysql-server
The following NEW packages will be installed:
  fonts-dejavu fonts-dejavu-extra fping libevent-2.1-7 libmodbus5 libodbc2 libopenipmi0 libsensors-config libsensors5 libsnmp-base libsnmp40 php-bcmath php8.1-bcmath snmpd zabbix-apache-conf
  zabbix-frontend-php zabbix-server-mysql zabbix-sql-scripts
The following packages will be upgraded:
  zabbix-agent
1 upgraded, 18 newly installed, 0 to remove and 47 not upgraded.
Need to get 19.5 MB of archives.
After this operation, 65.9 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

Install Zabbix di Database Server

1. Update repository untuk memperbarui paket perangkat lunak pada sistem linux

```
root@databaseserver-ubuntu:/home/databaseserver# sudo apt-get update
```

2. Mengunduh file Zabbix menggunakan perintah wget “**wget https://repo.zabbix.com/zabbix/6.2/ubuntu/pool/main/z/zabbix-release/zabbix-release_6.2-2%2Bubuntu22.04_all.deb**”

```
root@databaseserver-ubuntu:/home/databaseserver# wget https://repo.zabbix.com/zabbix/6.2/ubuntu/pool/main/z/zabbix-release/zabbix-release_6.2-2%2Bubuntu22.04_all.deb
```

3. Setelah berhasil mengunduh file tersebut, lalu install menggunakan perintah dpkg -i untuk menginstall dan memanipulasi paket biner Debian dengan ekstensi file .deb

```
root@databaseserver-ubuntu:/home/databaseserver# ls
zabbix-release_6.2-2+ubuntu22.04_all.deb
root@databaseserver-ubuntu:/home/databaseserver# dpkg -i zabbix-release_6.2-2+ubuntu22.04_all.deb
Selecting previously unselected package zabbix-release.
(Reading database ... 73972 files and directories currently installed.)
Preparing to unpack zabbix-release_6.2-2+ubuntu22.04_all.deb ...
Unpacking zabbix-release (1:6.2-2+ubuntu22.04) ...
Setting up zabbix-release (1:6.2-2+ubuntu22.04) ...
root@databaseserver-ubuntu:/home/databaseserver#
```

4. Setelah menginstall Zabbix lalu update paket repositorynya

```
root@databaseserver-ubuntu:/home/databaseserver# apt-get update
Hit:1 http://id.archive.ubuntu.com/ubuntu jammy InRelease
```

5. Setelah update paket kita akan install zabbix server, frontend, dan agent, gunakan perintah “**apt install zabbix-server-mysql zabbix-frontend-php zabbix-apache-conf zabbix-sql-scripts zabbix-agent**”. Catatan, Agent merupakan persyaratan untuk Zabbix ketika kita ingin menggunakannya harus install Zabbix

```
root@databaseserver-ubuntu:/home/databaseserver# apt install zabbix-server-mysql zabbix-frontend-php zabbix-apache-conf zabbix-sql-scripts zabbix-agent
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils bzip2 fontconfig-config fonts-dejavu fonts-dejavu-core fonts-dejavu-extra fping libapache2-mod-php8.1 lib
  libaprutil1-ldap libdeflate0 libevent-2.1-7 libfontconfig1 libgd3 libjpeg-turbo8 libjpeg8 libltdl7 liblua5.3-0 libmodbus5 libmysqlclient21 libn
  libnsensors5 libnsm-base libnsm4 libtiff5 libwebp7 libxpm4 mailcap mime-support php php-bcmath php-common php-gd php-ldap php-mbstring php-mysql php-
  php8.1-gd php8.1-ldap php8.1-mbstring php8.1-mysql php8.1-openssl php8.1-readline php8.1-xml snmpd ssl-cert
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom www-browser bzip2-doc php-pear libgd-tools odbc-postgresql tdsodbc lm-sensors snmp-mibs-down
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils bzip2 fontconfig-config fonts-dejavu fonts-dejavu-core fonts-dejavu-extra fping libapache2-mod-php8.1 lib
  libaprutil1-ldap libdeflate0 libevent-2.1-7 libfontconfig1 libgd3 libjpeg-turbo8 libjpeg8 libltdl7 liblua5.3-0 libmodbus5 libmysqlclient21 libn
  libnsensors5 libnsm-base libnsm4 libtiff5 libwebp7 libxpm4 mailcap mime-support php php-bcmath php-common php-gd php-ldap php-mbstring php-mysql php-
  php8.1-gd php8.1-ldap php8.1-mbstring php8.1-mysql php8.1-openssl php8.1-readline php8.1-xml snmpd ssl-cert zabbix-agent zabbix-apache-conf zabbix-front
0 upgraded, 64 newly installed, 0 to remove and 90 not upgraded.
Need to get 31.1 MB of archives.
After this operation, 113 MB of additional disk space will be used.
Do you want to continue? [Y/n]
```

Konfigurasi Database dan Membuat Database

1. Masuk ke service Mysql

```
root@databaseserver-ubuntu:/home/databaseserver# sudo su
root@databaseserver-ubuntu:/home/databaseserver# sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 9
Server version: 8.0.31-0ubuntu0.22.04.1 (Ubuntu)

Copyright (c) 2000, 2022, Oracle and/or its affiliates.

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.

mysql>
```

2. Membuat database dengan nama zabbix, ikuti perintah gambar dibawah ini

```
mysql> CREATE DATABASE zabbix character set utf8 collate utf8_bin;
Query OK, 1 row affected, 2 warnings (0.32 sec)

mysql> _
```

Membuat User Untuk Database Server

1. Membuat user zabbixclient

```
mysql> CREATE USER zabbixclient@localhost IDENTIFIED BY 'Zabbix1234%';
Query OK, 0 rows affected (0.13 sec)
```

2. Konfigurasi zabbixclient hanya bisa mengakses database zabbix saja

```
mysql> GRANT ALL PRIVILEGES ON zabbix.* TO 'zabbixclient'@'localhost';
Query OK, 0 rows affected (0.43 sec)

mysql> █
```

3. Ikuti perintah dibawah ini untuk melonggarkan kondisi pada pembuatan fungsi(bahwa kita harus memiliki super hak istimewa dan bahwa suatu fungsi harus dideklarasikan deterministik atau untuk tidak mengubah data), setelah variabel menjadi 1 dan nilai defaultnya yaitu 0.

```
mysql> SET GLOBAL LOG_BIN_TRUST_FUNCTION_CREATORS = 1;
Query OK, 0 rows affected (0.00 sec)
```

Membuat User Untuk Web Server

1. Membuat user untuk WebServer

```
mysql> CREATE USER 'zabbixserver'@'10.10.10.2' IDENTIFIED BY 'Zabbix1234%';
Query OK, 0 rows affected (0.05 sec)

mysql> █
```

2. Konfigurasi zabbixserver hanya bisa mengakses database zabbix saja

```
mysql> GRANT ALL PRIVILEGES ON zabbix.* TO 'zabbixserver'@'10.10.10.2';
Query OK, 0 rows affected (0.01 sec)

mysql> █
```

Konfigurasi Database

1. Pada host server Zabbix, impor skema dan data awal. kita akan diminta untuk memasukkan kata sandi yang baru kita buat. **“zcat /usr/share/zabbix-sql-scripts/mysql/server.sql.gz | mysql --default-character-set=utf8mb4 -u zabbixclient -p zabbix”**

```
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d# zcat /usr/share/zabbix-sql-scripts/mysql/server.sql.gz | mysql --default-character-set=utf8mb4 -u zabbixclient -p zabbix
Enter password:
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d# █
```

2. Memberikan izin firewall untuk bisa mengakses port 10050 atau Zabbix

```
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d# ufw allow 10050/tcp
Rules updated
Rules updated (v6)
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d# █
```

3. Nonaktifkan opsi log_bin_trust_function_creators setelah mengimpor skema basis data.

```
mysql> SET GLOBAL LOG_BIN_TRUST_FUNCTION_CREATORS = 0;
Query OK, 0 rows affected (0.00 sec)

mysql> █
```

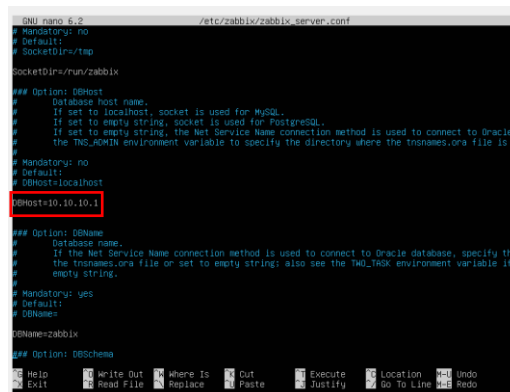
Konfigurasi Zabbix Di Web Server

1. Konfigurasi zabbix diwebserver

```
root@webserver-ubuntu:/home/webserver# nano /etc/zabbix/zabbix_server.conf_
```

2. Mengisi data zabbix yang ada di webserver dengan menggunakan data yang kita buat didatabase server dan save

- DBhost



```
GNU nano 6.2 /etc/zabbix/zabbix_server.conf
# Mandatory: no
# Default:
# SocketDir=/tmp

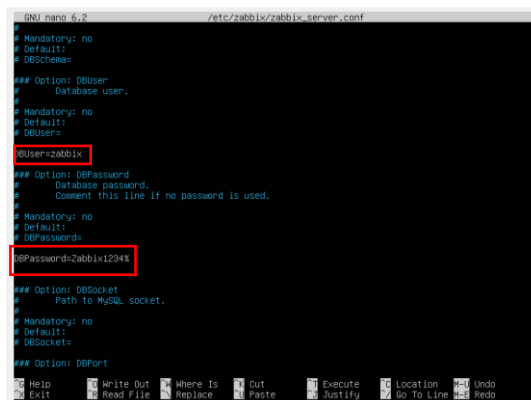
SocketDir=/run/zabbix

## Option: DBHost
# Database host name.
# If set to localhost, socket is used for MySQL.
# If set to empty string, socket is used for PostgreSQL.
# If set to empty string, the Net Service Name connection method is used to connect to Oracle.
# the TNS_ADMIN environment variable to specify the directory where the tnsnames.ora file is
# located.
# Mandatory: no
# Default:
# DBHost=localhost
DBHost=10.10.10.1

## Option: DBName
# Database name.
# If the Net Service Name connection method is used to connect to Oracle database, specify the
# the tnsnames.ora file or set to empty string; also see the tns_admin environment variable if
# empty string.
# Mandatory: yes
# Default:
# DBName=
DBName=zabbix

## Option: DBSchema
# Database schema.
# Mandatory: no
# Default:
# DBSchema=
DBSchema=zabbix
```

- DBUser dan DBPassword



```
GNU nano 6.2 /etc/zabbix/zabbix_server.conf
# Mandatory: no
# Default:
# DBSchema=
DBSchema=zabbix

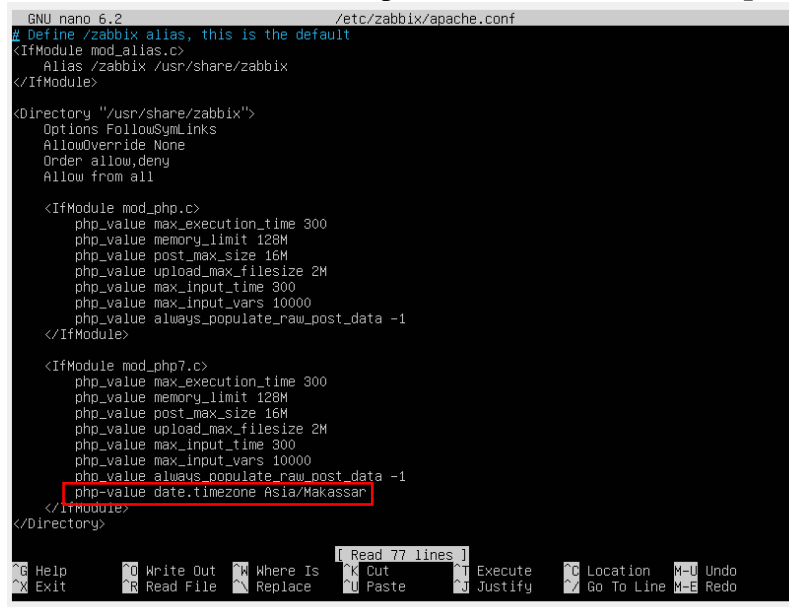
## Option: DBUser
# Database user.
# Mandatory: no
# Default:
# DBUser=
DBUser=zabbix

## Option: DBPassword
# Database password.
# Comment this line if no password is used.
# Mandatory: no
# Default:
# DBPassword=
DBPassword=zabbix1234x

## Option: DBSocket
# Path to MySQL socket.
# Mandatory: no
# Default:
# DBSocket=

## Option: DBPort
# Database port.
# Mandatory: no
# Default:
# DBPort=
```

3. Kemudian kita pergi ke apache.conf dan menambahkan instruksi untuk menambahkan date dan timezone. Gunakan perintah **nano /etc/zabbix/apache.conf**



```
GNU nano 6.2 /etc/zabbix/apache.conf
# Define /zabbix alias, this is the default
<IfModule mod_alias.c>
Alias /zabbix /usr/share/zabbix
</IfModule>

<Directory "/usr/share/zabbix">
Options FollowSymLinks
AllowOverride None
Order allow,deny
Allow from all

<IfModule mod_php.c>
php_value max_execution_time 300
php_value memory_limit 128M
php_value post_max_size 16M
php_value upload_max_filesize 2M
php_value max_input_time 300
php_value max_input_vars 10000
php_value always_populate_raw_post_data -1
</IfModule>

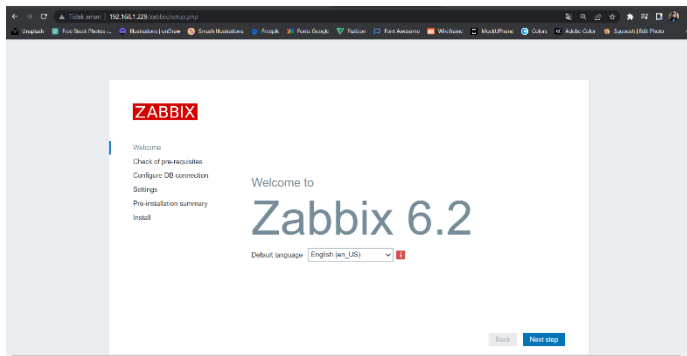
<IfModule mod_php7.c>
php_value max_execution_time 300
php_value memory_limit 128M
php_value post_max_size 16M
php_value upload_max_filesize 2M
php_value max_input_time 300
php_value max_input_vars 10000
php_value always_populate_raw_post_data -1
php_value date.timezone Asia/Makassar
</IfModule>
</Directory>
```

- Restart apache dan zabbix-server agar konfigurasi kita terupdate

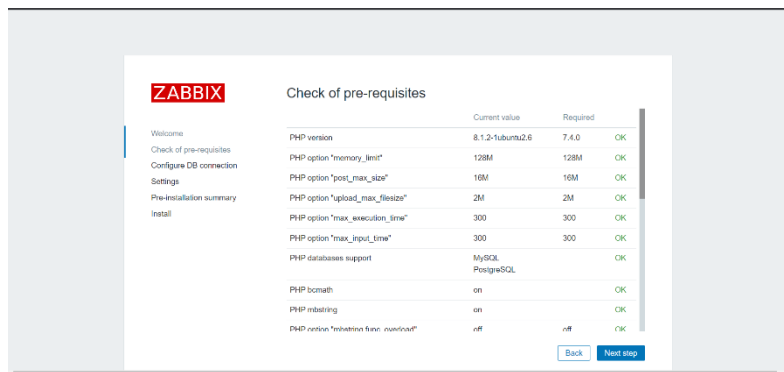
```
root@webserver-ubuntu:/home/webserver# systemctl restart apache2
root@webserver-ubuntu:/home/webserver# systemctl start zabbix-server
root@webserver-ubuntu:/home/webserver#
```

Konfigurasi Zabbix di Apache (Web Server)

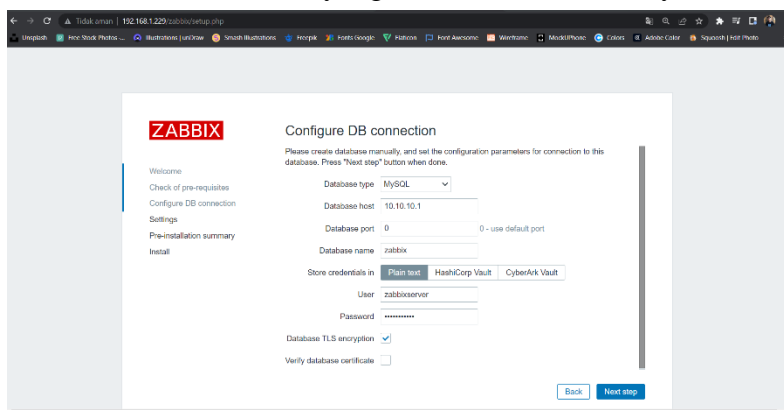
- Buka browser kalian lalu ketik http://ip_webserver/zabbix maka akan tampil service zabbixnya



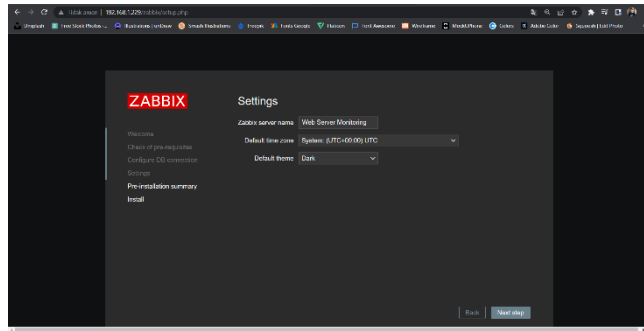
- Persyaratan untuk menggunakan zabbix sudah OK. Klik Next Step



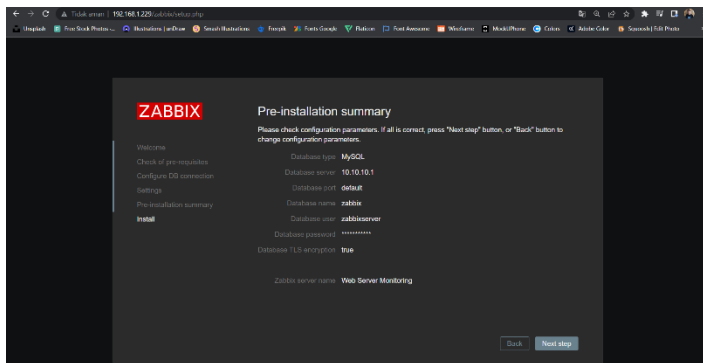
- Isi data database kalian yang tadi dibuat sebelumnya



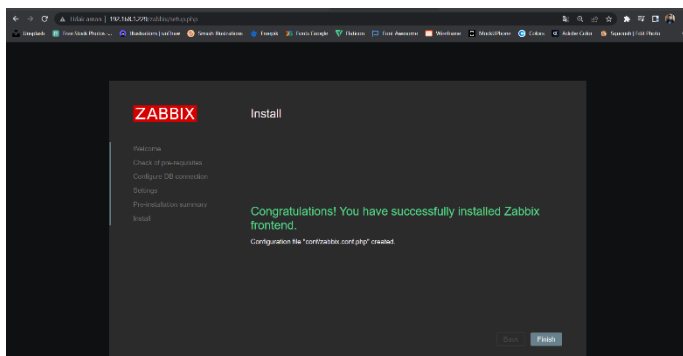
4. Beri nama Server name kalian



5. Pengecekan ulang apakah yang tadi isi sudah benar atau masih keliru jika sudah maka klik next step



6. Instalasi Zabbix di web server berhasil



Konfigurasi Agent/ Client Zabbix monitoring Di Database Server

1. Generate pre-shared key(PSK) dengan perintah “`sh -c "openssl rand -hex 32 > /etc/zabbix/zabbix_agentd.psk"`”

```
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d# sh -c "openssl rand -hex 32 > /etc/zabbix/zabbix_agentd.psk"
```

2. Untuk melihat generate psk, gunakan cat untuk melihat konten file, menggabungkan file dan mengarahkan output dari terminal

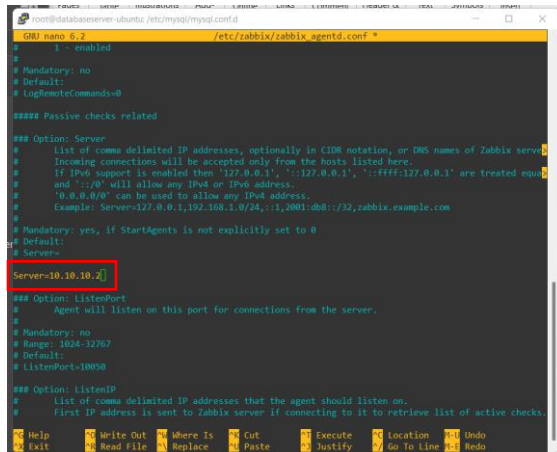
```
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d# cat /etc/zabbix/zabbix_agentd.psk
01fdc619b922c6bdb2aa174409959a6cf1f6c1159e9f638400d289c54837b206
```

Konfigurasi Zabbix Database Untuk Terhubung ke Web Server

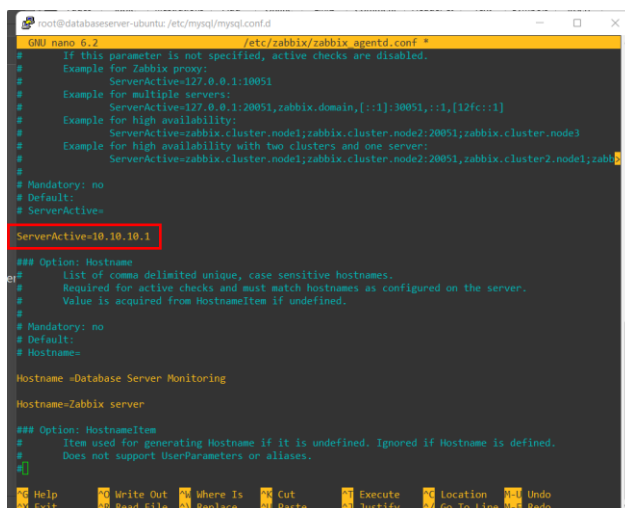
1. Untuk konfigurasi ikuti perintah gambar dibawah ini untuk mengedit konfigurasi

```
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d# nano /etc/zabbix/zabbix_agentd.conf
```

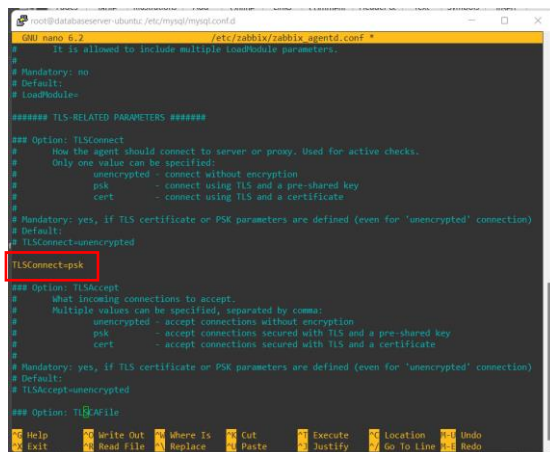
2. Masukan IP Web Server



3. Masukan IP Database Server

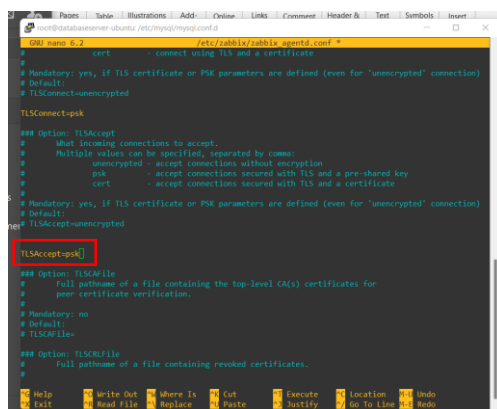


4. TLSConnect=psk



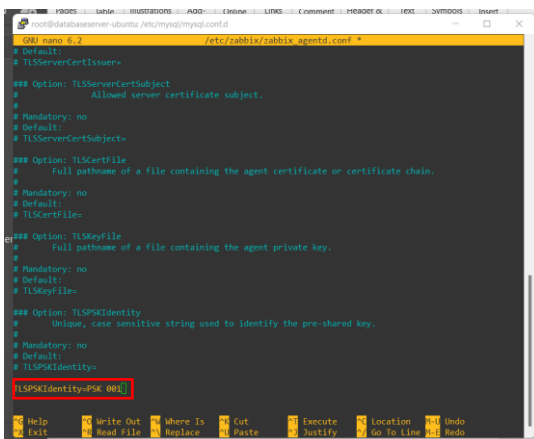
```
GNU nano 6.2 /etc/rabbitmq/rabbitmq-agentd.conf
# It is allowed to include multiple loadModule parameters.
#
# Mandatory: no
# Default:
# loadModule=
#
##### TLS-RELATED PARAMETERS #####
## Option: TLSConnect
# How the agent should connect to server or proxy. Used for active checks.
# Only one value can be specified:
#   unencrypted - connect without encryption
#   psk         - connect using TLS and a pre-shared key
#   cert        - connect using TLS and a certificate
# Mandatory: yes, if TLS certificate or PSK parameters are defined (even for 'unencrypted' connection)
# Default:
# TLSConnect=unencrypted
# TLSConnect=psk
## Option: TLSAccept
# What incoming connections to accept.
# Multiple values can be specified, separated by comma:
#   unencrypted - accept connections without encryption
#   psk         - accept connections secured with TLS and a pre-shared key
#   cert        - accept connections secured with TLS and a certificate
# Mandatory: yes, if TLS certificate or PSK parameters are defined (even for 'unencrypted' connection)
# Default:
# TLSAccept=unencrypted
## Option: TLSFile
# Full path to a file containing the agent certificate or certificate chain.
# Mandatory: no
# Default:
# TLSFile=
#
## Option: TLSKeyFile
# Full path to a file containing the agent private key.
# Mandatory: no
# Default:
# TLSKeyFile=
#
## Option: TLSKeyIdentity
# Unique, case sensitive string used to identify the pre-shared key.
# Mandatory: no
# Default:
# TLSKeyIdentity=
#
# TLSKeyIdentity=PSK_001
```

5. TLSAccept=psk



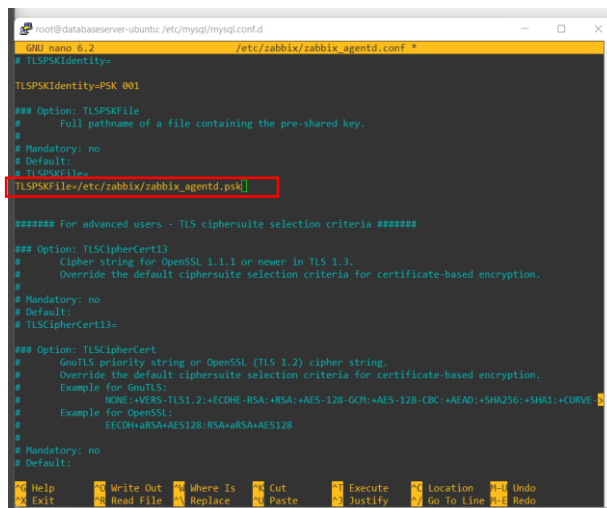
```
GNU nano 6.2 /etc/rabbitmq/rabbitmq-agentd.conf
# It is allowed to include multiple loadModule parameters.
#
# Mandatory: no
# Default:
# loadModule=
#
##### TLS-RELATED PARAMETERS #####
## Option: TLSConnect
# How the agent should connect to server or proxy. Used for active checks.
# Only one value can be specified:
#   unencrypted - connect without encryption
#   psk         - connect using TLS and a pre-shared key
#   cert        - connect using TLS and a certificate
# Mandatory: yes, if TLS certificate or PSK parameters are defined (even for 'unencrypted' connection)
# Default:
# TLSConnect=unencrypted
# TLSConnect=psk
## Option: TLSAccept
# What incoming connections to accept.
# Multiple values can be specified, separated by comma:
#   unencrypted - accept connections without encryption
#   psk         - accept connections secured with TLS and a pre-shared key
#   cert        - accept connections secured with TLS and a certificate
# Mandatory: yes, if TLS certificate or PSK parameters are defined (even for 'unencrypted' connection)
# Default:
# TLSAccept=unencrypted
# TLSAccept=psk
## Option: TLSFile
# Full path to a file containing the agent certificate or certificate chain.
# Mandatory: no
# Default:
# TLSFile=
#
## Option: TLSKeyFile
# Full path to a file containing the agent private key.
# Mandatory: no
# Default:
# TLSKeyFile=
#
## Option: TLSKeyIdentity
# Unique, case sensitive string used to identify the pre-shared key.
# Mandatory: no
# Default:
# TLSKeyIdentity=
#
# TLSKeyIdentity=PSK_001
```

6. TLSPSKIdentity=PSK 001



```
GNU nano 6.2 /etc/rabbitmq/rabbitmq-agentd.conf
# It is allowed to include multiple loadModule parameters.
#
# Mandatory: no
# Default:
# loadModule=
#
##### TLS-RELATED PARAMETERS #####
## Option: TLSConnect
# How the agent should connect to server or proxy. Used for active checks.
# Only one value can be specified:
#   unencrypted - connect without encryption
#   psk         - connect using TLS and a pre-shared key
#   cert        - connect using TLS and a certificate
# Mandatory: yes, if TLS certificate or PSK parameters are defined (even for 'unencrypted' connection)
# Default:
# TLSConnect=unencrypted
# TLSConnect=psk
## Option: TLSAccept
# What incoming connections to accept.
# Multiple values can be specified, separated by comma:
#   unencrypted - accept connections without encryption
#   psk         - accept connections secured with TLS and a pre-shared key
#   cert        - accept connections secured with TLS and a certificate
# Mandatory: yes, if TLS certificate or PSK parameters are defined (even for 'unencrypted' connection)
# Default:
# TLSAccept=unencrypted
# TLSAccept=psk
## Option: TLSFile
# Full path to a file containing the agent certificate or certificate chain.
# Mandatory: no
# Default:
# TLSFile=
#
## Option: TLSKeyFile
# Full path to a file containing the agent private key.
# Mandatory: no
# Default:
# TLSKeyFile=
#
## Option: TLSPSKIdentity
# Unique, case sensitive string used to identify the pre-shared key.
# Mandatory: no
# Default:
# TLSPSKIdentity=
#
# TLSPSKIdentity=PSK 001
```

7. TLSPSKFile=/etc/zabbix/zabbix.agentd.psk



```
root@databaseserver-ubuntu: /etc/mysql/mysql.conf.d
GNU nano 6.2 /etc/zabbix/zabbix.agentd.conf *
# TLSPSKIdentity=
TLSPSKIdentity=PSK 001

### Option: TLSPSKFile
# Full pathname of a file containing the pre-shared key.
# Mandatory: no
# Default:
# TLSPSKFile=
TLSPSKFile=/etc/zabbix/zabbix.agentd.psk

##### For advanced users - TLS ciphersuite selection criteria #####
### Option: TLSCipherCert13
# Cipher string for OpenSSL 1.1.1 or newer in TLS 1.3.
# Override the default ciphersuite selection criteria for certificate-based encryption.
# Mandatory: no
# Default:
# TLSCipherCert13=

### Option: TLSCipherCert
# GnuTLS priority string or OpenSSL (TLS 1.2) cipher string.
# Override the default ciphersuite selection criteria for certificate-based encryption.
# Example for GnuTLS:
# NONE:+VERS-TLS1.2:+ECDHE-RSA:+RSA:+AES-128-GCM:+AES-128-CBC:+AEAD:+SHA256:+SHA1:+CURVE
# Example for OpenSSL:
# ECDH+aRSA:AES128:RSA+aRSA:AES128
# Mandatory: no
# Default:
```

8. Aktifkan enable zabbix-agent

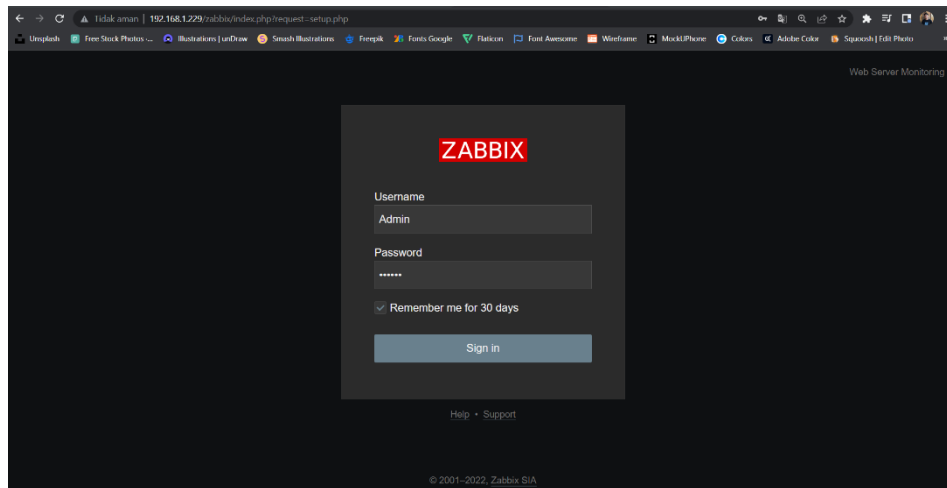
```
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d# systemctl enable zabbix-agent
Synchronizing state of zabbix-agent.service with SysV service script with /lib/systemd/systemd-sysv-inst
all.
Executing: /lib/systemd/systemd-sysv-install enable zabbix-agent
root@databaseserver-ubuntu:/etc/mysql/mysql.conf.d#
```

Konfigurasi Menambahkan Client di Zabbix

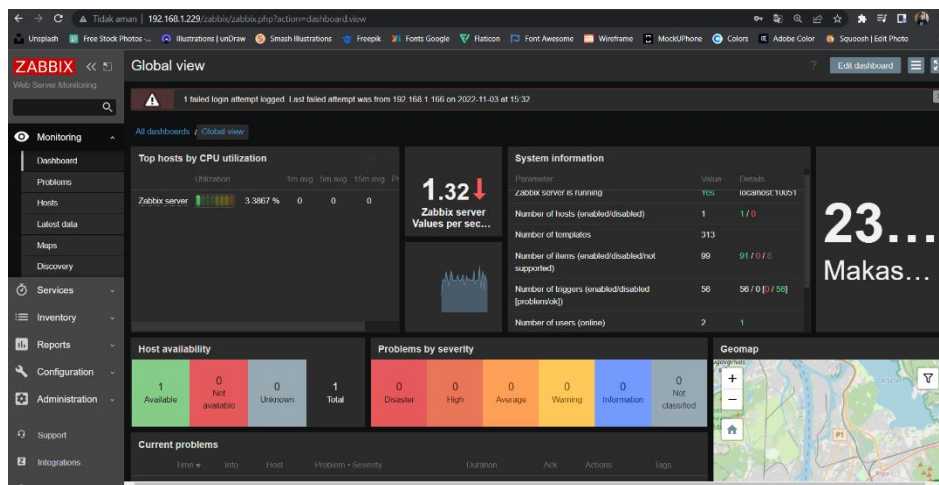
1. Login menggunakan dibawah ini

Username : Admin

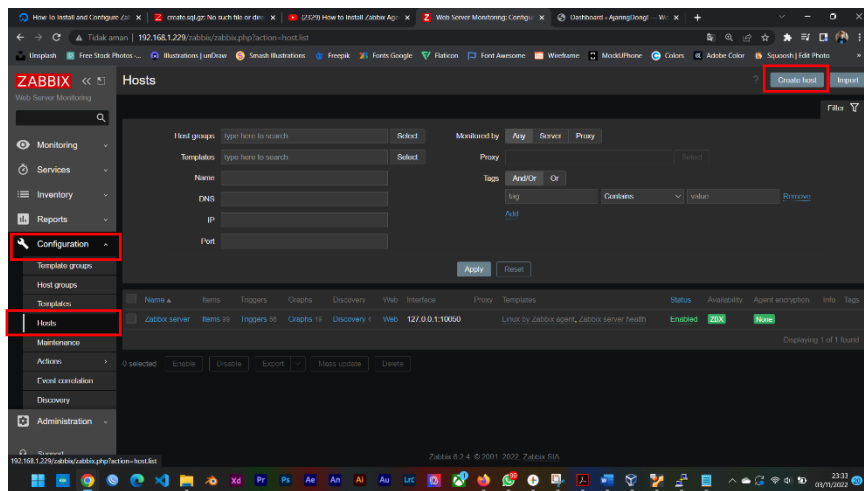
Password : zabbix



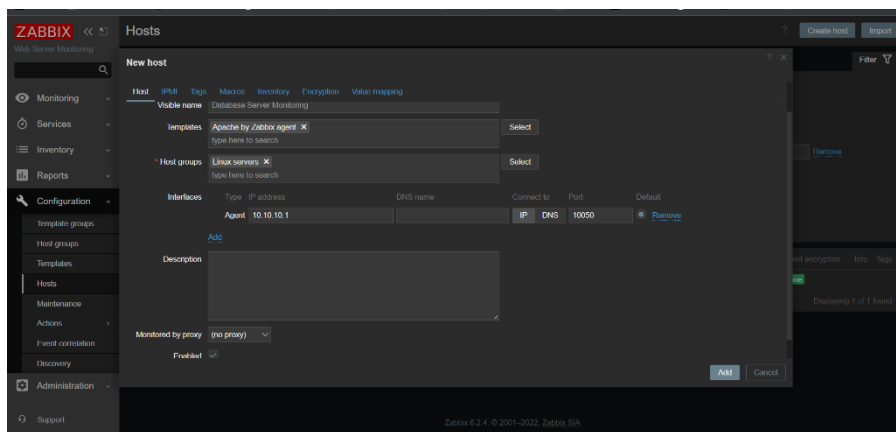
2. Setelah login, akan menampilkan dashboard zabbix



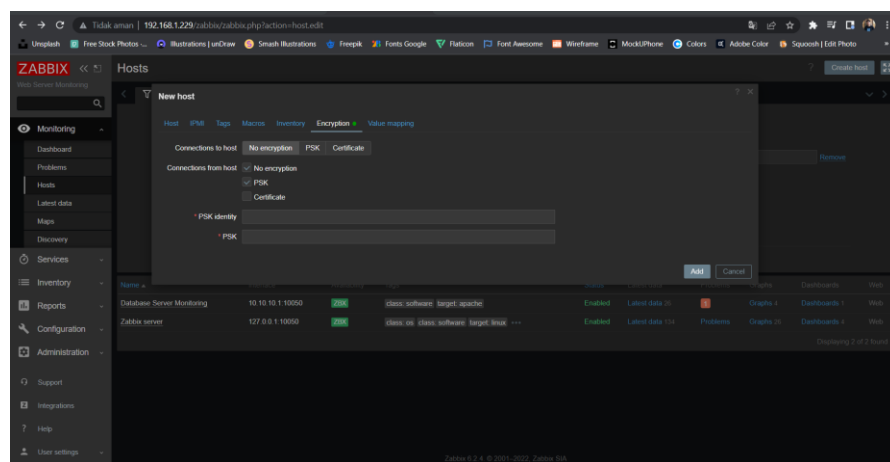
3. Menambahkan Database Server, kita pergi ke menu **Configuration** → **Host** → **Create Host**



4. Ikuti konfigurasi berikut ini



5. Setelah ini masuk menu **Encryption** untuk memasukkan kode PSK



6. Zabbix sudah berhasil di Install

