1. **Install Zabbix Server 5 on VM that includes:**
- **Zabbix Server**
- **Database**
- **Apache**
- **PHP**
- **Zabbix Server-Modules for Apache & Database**
- **Zabbix Frontend**

Installing Database **Mysql**

sudo apt install mysql-server

```
done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/me
cab/dic/debian (mecab-dictionary) in auto mode
Setting up mysql-server-8.0 (8.0.27-0ubuntu0.20.04.1) ...
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my
.cnf) in auto mode
Renaming removed key_buffer and myisam-recover options (if present)
mysqld will log errors to /var/log/mysql/error.log
mysqld is running as pid 2712
Created symlink /etc/systemd/system/multi-user.target.wants/mysql.service → /lib
/systemd/system/mysql.service.
Setting up mysql-server (8.0.27-0ubuntu0.20.04.1) ...
Processing triggers for systemd (245.4-4ubuntu3.13) ...
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for libc-bin (2.31-0ubuntu9.2) ...
bibek@metricbeat:~$
```

Setting mysql server password

sudo mysql_secure_installation

And configured password strength 2

```
Remove test database and access to it? (Press y|Y for Yes, any other key for No)
 : y
 - Dropping test database...
Success.

 - Removing privileges on test database...
Success.

Reloading the privilege tables will ensure that all changes
made so far will take effect immediately.

Reload privilege tables now? (Press y|Y for Yes, any other key for No) : y
Success.

All done!
bibek@metricbeat:~$
```

Creating user and database for Zabbix

sudo mysql -u root -p

```
bibek@metricbeat:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.27-0ubuntu0.20.04.1 (Ubuntu)

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owners.

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

mysql>
```

Creating Database

create database zabbix character set utf8 collate utf8_bin;

```
mysql> create database zabbix character set utf8 collate utf8_bin;
Query OK, 1 row affected, 2 warnings (0.10 sec)
```

Creating user

create user zabbix@localhost identified by 'Zabbix@123';

Granting all privileges

grant all privileges on zabbix.* to zabbix@localhost;

flush privileges;

```
mysql> create user zabbix@localhost identified by 'Zabbix@123';
Query OK, 0 rows affected (0.08 sec)

mysql> grant all privileges on zabbix.* to zabbix@localhost;
Query OK, 0 rows affected (0.14 sec)

mysql> flush privileges;
Query OK, 0 rows affected (0.01 sec)
```

Installing **PHP**

sudo apt install php libapache2-mod-php php-mysql

```
bibek@metricbeat:~$ php -v
PHP 7.4.3 (cli) (built: Oct 25 2021 18:20:54) ( NTS )
Copyright (c) The PHP Group
Zend Engine v3.4.0, Copyright (c) Zend Technologies
    with Zend OPcache v7.4.3, Copyright (c), by Zend Technologies
bibek@metricbeat:~$
```

Installing **Apache**

sudo apt install apache2

```
bibek@metricbeat:~$ sudo apt install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.41-4ubuntu3.8).
apache2 set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 13 not upgraded.
bibek@metricbeat:~$
```

Already installed

Installing **Zabbix-5**

wget

https://repo.zabbix.com/zabbix/5.0/ubuntu/pool/main/z/zabbix-release/zabbix-release_5.0

-1+focal_all.deb

sudo dpkg -i zabbix-release_5.0-1+focal_all.deb

```
bibek@metricbeat:~$ ls | grep zabbix
zabbix-release_5.0-1+focal_all.deb
bibek@metricbeat:~$ sudo dpkg -i zabbix-release_5.0-1+focal_all.deb
Selecting previously unselected package zabbix-release.
(Reading database ... 177171 files and directories currently installed.)
Preparing to unpack zabbix-release_5.0-1+focal_all.deb ...
Unpacking zabbix-release (1:5.0-1+focal) ...
Setting up zabbix-release (1:5.0-1+focal) ...
bibek@metricbeat:~$
```

sudo apt update

Installing **Zabbix server modules** for **mysql and apache**

sudo apt install zabbix-server-mysql zabbix-apache-conf

Installing Zabbix frontend

sudo apt install zabbix-frontend-php

```
bibek@metricbeat:~$ sudo apt install zabbix-frontend-php
Reading package lists... Done
Building dependency tree
Reading state information... Done
zabbix-frontend-php is already the newest version (1:5.0.18-1+focal).
zabbix-frontend-php set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 23 not upgraded.
bibek@metricbeat:~$
```

Already installed

Set up the schema and import the data into the zabbix database

zcat /usr/share/doc/zabbix-server-mysql*/create.sql.gz | mysql -u zabbix -p zabbix

And giving the password for zabbix user, it takes some time

For the Zabbix server to use this database, We need to set the database password in the Zabbix server configuration file

sudo vi /etc/zabbix/zabbix_server.conf

Set DBPassword
Set DBHost
Save & exit

Setting time zone

vi /etc/zabbix/apache.conf

php_value date.timezone Asia/Kathmandu

Setting hostname

sudo hostnamectl set-hostname ubuntu-zabbix

Restart the zabbix and apache

systemctl restart zabbix-server.service apache2.service