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## JOBSHEET 5 CLOUD PAAS

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Arranged By:

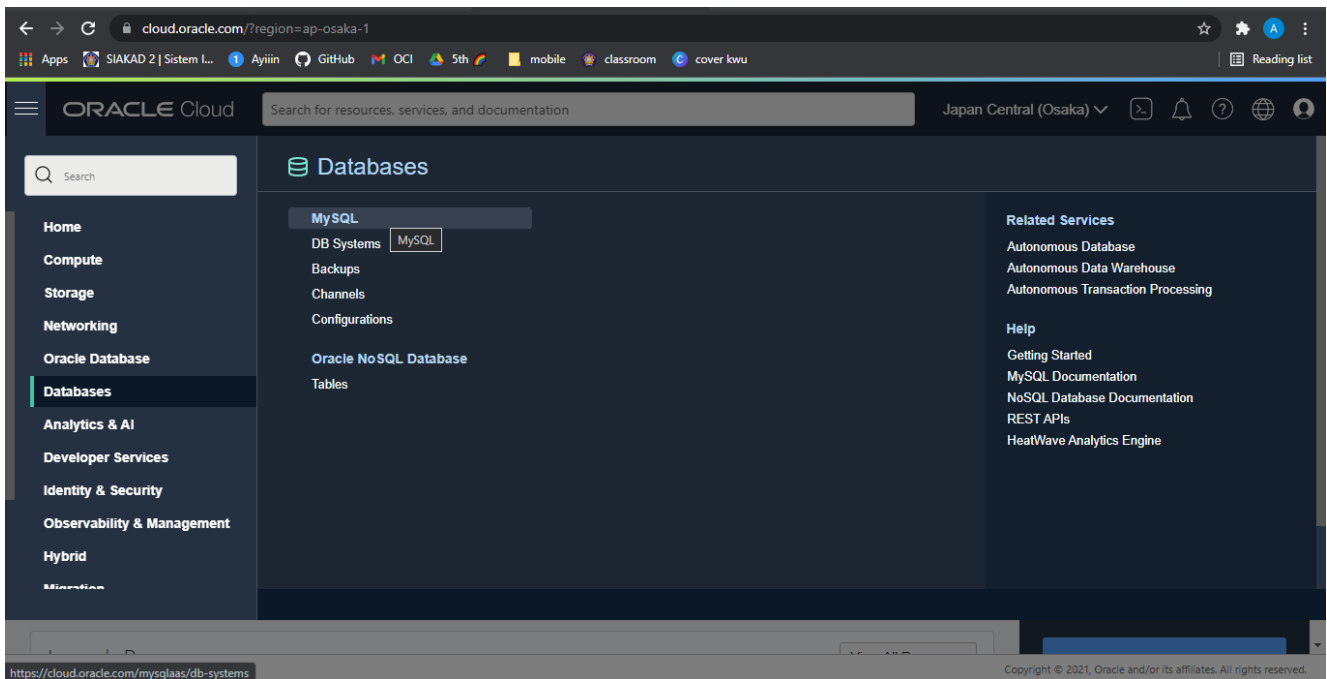
Rajendra Rakha Arya Prabaswara  
(1941720080/21)

**D-IV INFORMATICS ENGINEERING**  
**STUDY PROGRAM**  
**DEPARTMENT OF INFORMATION TECHNOLOGY**

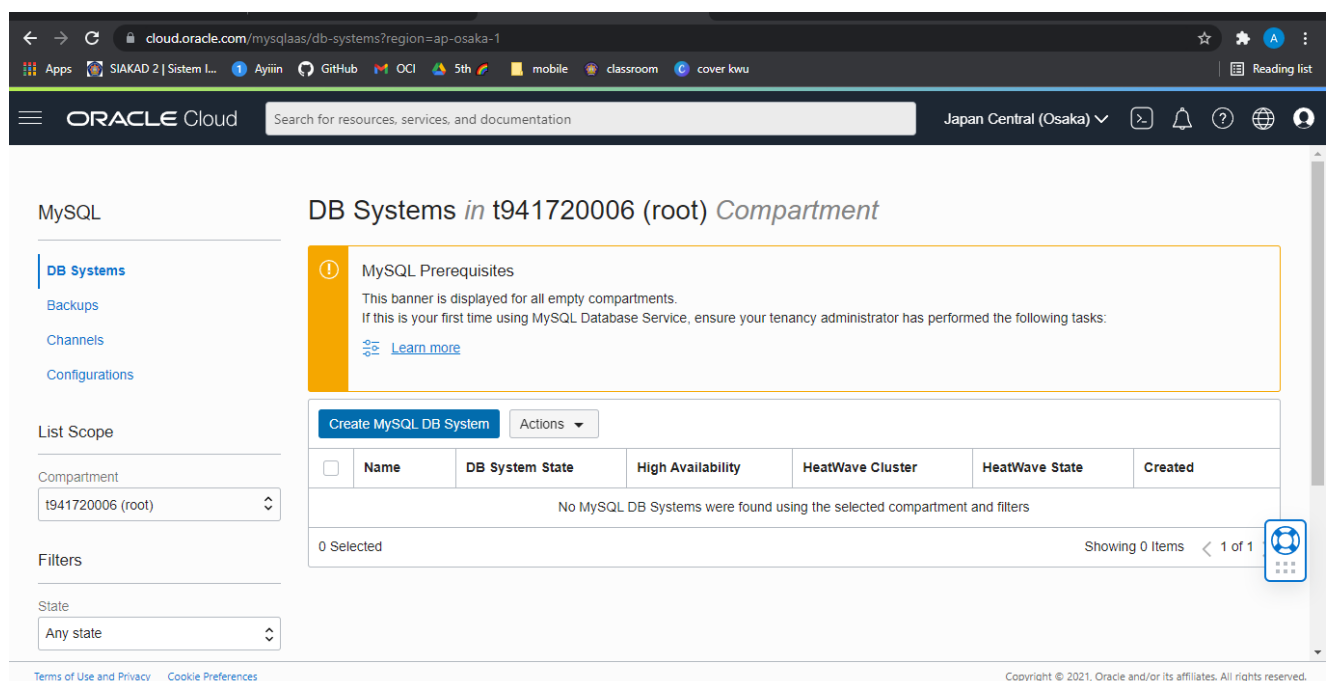
# Practicum 1

## Create Databases

1. Select the MySQL Databases menu on OCI



2. Press the Create MySQL Database Button



### 3. Filling compartments and database types

cloud.oracle.com/mysqlas/db-systems?region=ap-osaka-1

ORACLE Cloud Search for resources, services, and documentation Japan Central (Osaka)

## Create MySQL DB System

t941720006 (root)

Name  
mysql20210930115851  
The user-friendly name for the DB System. It does not have to be unique.

Description *Optional*  
User-provided data about the DB System.

**Standalone**  
Single-Instance MySQL DB System

**High Availability**  
Run 3-Instance MySQL DB System providing automatic failover and zero data loss

**HeatWave**  
DB System that allows you to enable HeatWave for accelerated query processing, suitable for running both OLTP and OLAP workloads

Create Cancel

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### 4. Fill in The Administrator Databases Data

cloud.oracle.com/mysqlas/db-systems?region=ap-osaka-1

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## Create MySQL DB System

System

**Standalone**  
Single-Instance MySQL DB System

**High Availability**  
Run 3-Instance MySQL DB System providing automatic failover and zero data loss

**HeatWave**  
DB System that allows you to enable HeatWave for accelerated query processing, suitable for running both OLTP and OLAP workloads

### Create Administrator credentials

Username ①  
admin

Password  
.....

Confirm Password  
.....

### Configure networking

Collapse

Create Cancel

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## 5. Configuration VCN

The screenshot shows the 'Create MySQL DB System' page in the Oracle Cloud console. The 'Configure networking' section is expanded, showing the selection of a Virtual Cloud Network (VCN) and a Subnet. The VCN is 'vcn-20210916-1339' and the Subnet is 'subnet-20210916-1339 (Regional)'. The 'Configure placement' section is collapsed. At the bottom, there are 'Create' and 'Cancel' buttons.

cloud.oracle.com/mysqlas/db-systems?region=ap-osaka-1

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### Create MySQL DB System

**Configure networking** [Collapse](#)

The VCN and Subnet where the MySQL DB System endpoint will be attached. The MySQL DB System endpoint uses only private IP addresses and is not directly accessible from the internet. Use bastion hosts or a VPN to access the MySQL database. Learn more about [Network Setup](#) for MySQL DB Systems and [how to connect to a MySQL DB System](#). If you do not already have one available then you will need to [create a VCN and Subnets](#).

Virtual Cloud Network in **ts41720006** [\(Change Compartment\)](#)

vcn-20210916-1339

Subnet in **ts41720006** [\(Change Compartment\)](#)

subnet-20210916-1339 (Regional)

**Configure placement** [Collapse](#)

[Create](#) [Cancel](#)

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## 6. Configuration Availability Domain

The screenshot shows the 'Create MySQL DB System' page in the Oracle Cloud console. The 'Configure placement' section is expanded, showing the selection of an Availability Domain. The selected Availability Domain is 'AD-1' with the ID 'NHEy:AP-OSAKA-1-AD-1'. The 'Choose a Fault Domain' option is unchecked. The 'Configure hardware' section is collapsed. At the bottom, there are 'Create' and 'Cancel' buttons.

cloud.oracle.com/mysqlas/db-systems?region=ap-osaka-1

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### Create MySQL DB System

**Configure placement** [Collapse](#)

The [fault domain](#) in which the MySQL DB System endpoint will be physically placed. It is recommended to allow Oracle to choose the best placement for the fault domain.

Availability Domain

AD-1  
NHEy:AP-OSAKA-1-AD-1 ✓

☐ Choose a Fault Domain  
If you do not select a Fault Domain, Oracle will choose the best placement for you.

**Configure hardware** [Collapse](#)

[Create](#) [Cancel](#)

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## 7. Copying Shape from database

The screenshot shows the 'Create MySQL DB System' page in the Oracle Cloud console. The 'Configure hardware' section is active, showing the selected shape 'MySQL.VM.Standard.E3.1.8GB' with 1 CPU core and 8 GB memory. A 'Data Storage Size (GB)' of 50 is entered. The 'Create' button is highlighted in blue.

cloud.oracle.com/mysqlas/db-systems?region=ap-osaka-1

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### Create MySQL DB System

#### Configure hardware [Collapse](#)

Select a Shape

MySQL.VM.Standard.E3.1.8GB

**CPU Core Count:** 1

**Memory Size:** 8 GB

[Change Shape](#)

The shape determines CPU cores and memory allocated to each instance in a MySQL DB System. In multi-instance DB Systems the CPU core count and memory size will be multiplied by the total number of instances.

**Data Storage Size (GB)**

50

The amount of storage to allocate to the MySQL DB System for all data and log files.

[Create](#) [Cancel](#)

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## 8. Copying Backups from Databases and Pressing Tombol Create Database

The screenshot shows the 'Create MySQL DB System' page in the Oracle Cloud console, specifically the 'Configure Backup Plan' section. The 'Enable Automatic Backups' toggle is turned on. The 'Backup retention period' is set to 7 days. The 'Select Backup Window' toggle is turned off. The 'Create' button is highlighted in blue.

cloud.oracle.com/mysqlas/db-systems?region=ap-osaka-1

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### Create MySQL DB System

#### Configure Backup Plan

**Enable Automatic Backups**

☒

Enables automatic backups. You must also specify a retention period, and select a backup window.

**Backup retention period** *Optional*

The Retention Period defines how long to store the backups, in days. ⓘ

7

**Select Backup Window**

☐

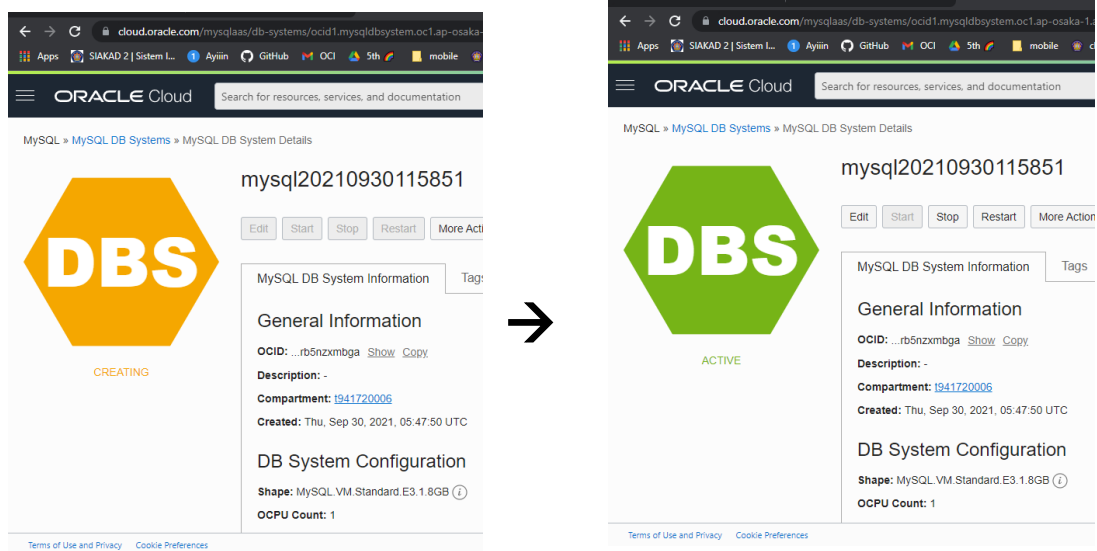
The backup window start time defines the start of the time period during which your DB System is backed up. [Show More](#)

[Show Advanced Options](#)

[Create](#) [Cancel](#)

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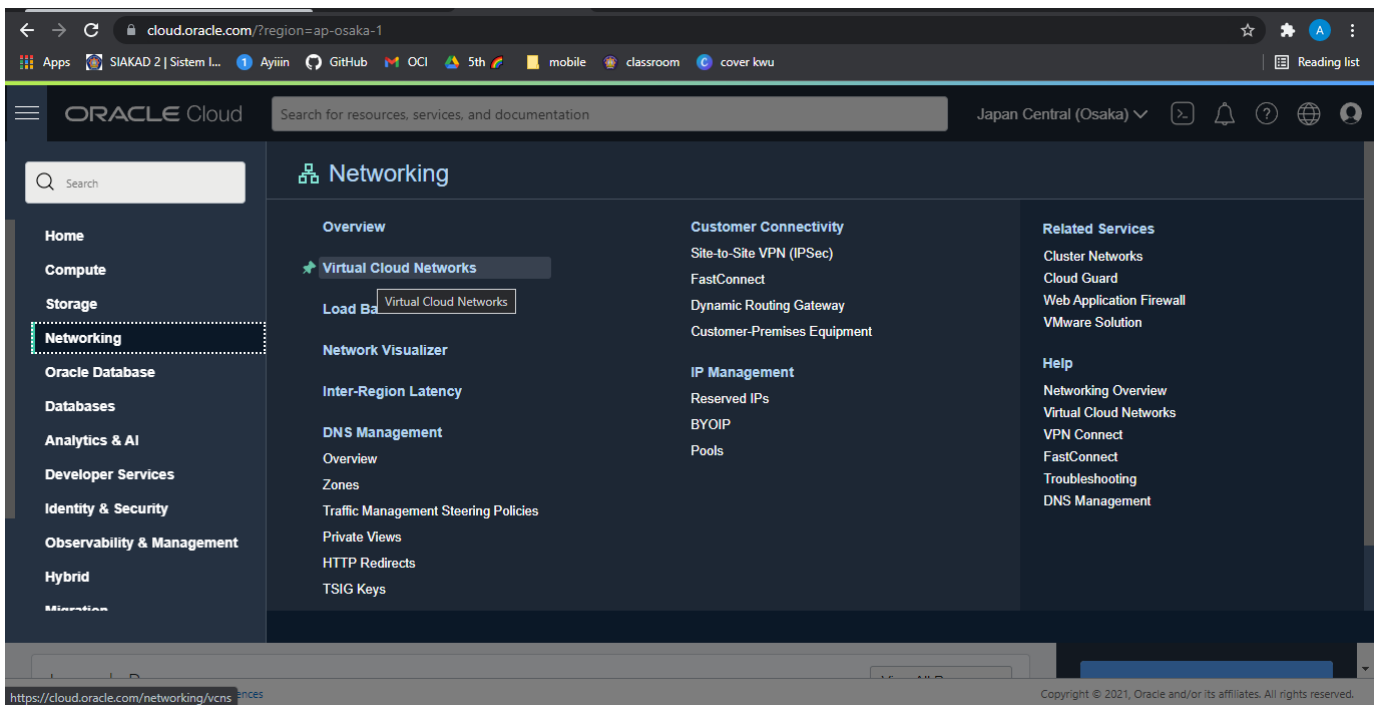
After pressing the create database button, the status of the database is Creating, so wait a while until the active database status.



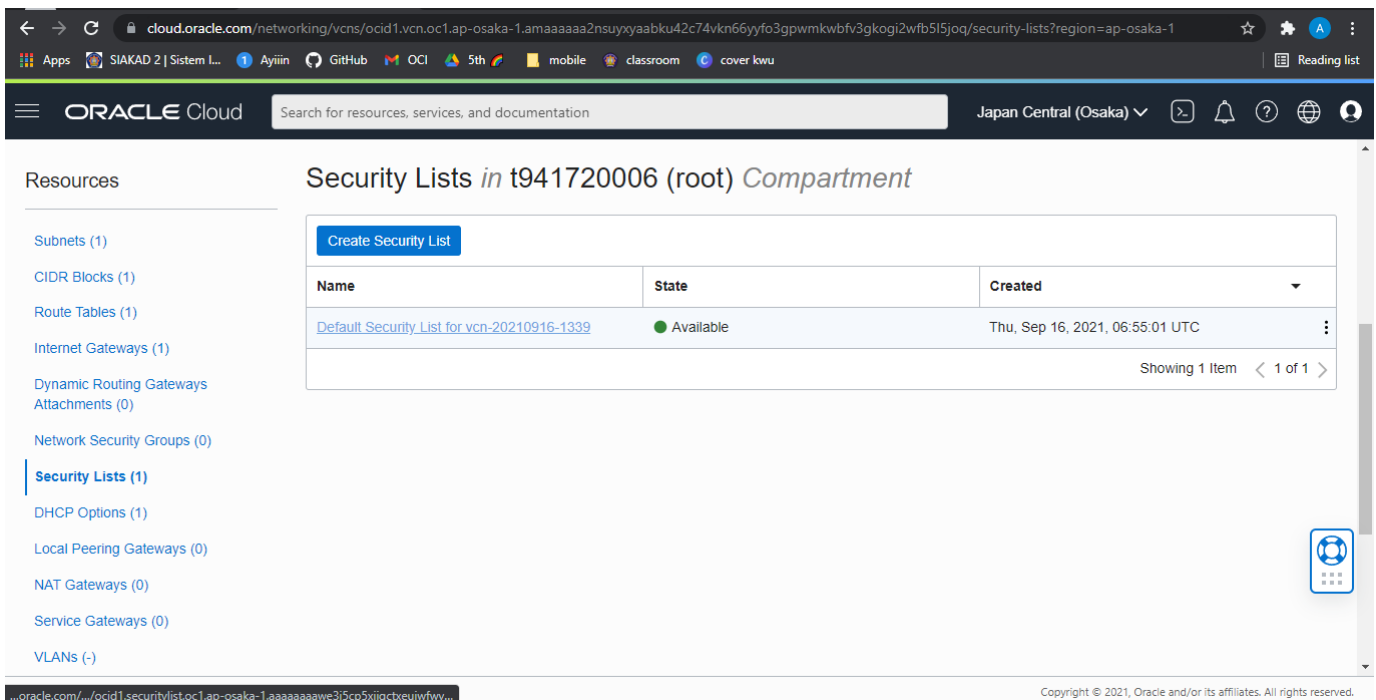
## Practicum 2

### Configuration Virtual Cloud Networks (VCN)

1. Select a VCN menu on Networking



2. Select the Security List menu



### 3. Adding Rules to the Security List

**Ingress Rule 1**

Allows TCP traffic 3306,33060

☐ Stateless ⓘ

Source Type: CIDR

Source CIDR: 0.0.0.0/0  
Specified IP addresses: 0.0.0.0-255.255.255.255  
(4,294,967,296 IP addresses)

IP Protocol: TCP

Source Port Range: Optional ⓘ  
All  
Examples: 80, 20-22

Destination Port Range: Optional ⓘ  
3306,33060  
Examples: 80, 20-22

Description: Optional ⓘ  
Maximum 255 characters

+ Another Ingress Rule

Add Ingress Rules Cancel

cloud.oracle.com/networking/vcns/ocid1.vcn.oc1.ap-osaka-1.amaaaaaa2nsuyxyabku42c74vkn66yyfo3gpwmkwbfbv3gkogi2wfb5l5joq/security-lists/ocid1.securitylist.oc1.ap-o...

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<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	22	TCP traffic for ports: 22 SSH Remote Login Protocol	⋮
<input type="checkbox"/>	No	0.0.0.0/0	ICMP		3, 4	ICMP traffic for: 3, 4 Destination Unreachable: Fragmentation Needed and Don't Fragment was Set	⋮
<input type="checkbox"/>	No	10.0.0.0/16	ICMP		3	ICMP traffic for: 3 Destination Unreachable	⋮
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	3306	TCP traffic for ports: 3306	⋮
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	33060	TCP traffic for ports: 33060	⋮
0 Selected							Showing 6 Items < 1 of 1 >

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## Practicum 3

### Access MySQL from Through SSH

1. The way to access instances owned through ssh is to type the following command:

```
ubuntu@vm-ubuntu: ~  
* Support:      https://ubuntu.com/advantage  
  
System information as of Thu Sep 30 08:35:09 UTC 2021  
  
System load:  0.23      Processes:      127  
Usage of /:   6.7% of 44.97GB   Users logged in: 0  
Memory usage: 25%      IPv4 address for ens3: 10.0.0.145  
Swap usage:   0%  
  
* Super-optimized for small spaces - read how we shrank the memory  
  footprint of MicroK8s to make it the smallest full K8s around.  
  
https://ubuntu.com/blog/microk8s-memory-optimisation  
  
15 updates can be applied immediately.  
To see these additional updates run: apt list --upgradable  
  
*** System restart required ***  
Last login: Thu Sep 23 05:32:18 2021 from 114.6.31.174  
ubuntu@vm-ubuntu:~$ sudo ssh -i /Users/user/Music/ssh-key-2021-09-16.key ubuntu@140.83.48.204  
Warning: Identity file /Users/user/Music/ssh-key-2021-09-16.key not accessible: No such file or  
  directory.  
The authenticity of host '140.83.48.204 (140.83.48.204)' can't be established.  
ECDSA key fingerprint is SHA256:Nn3HRvFm9Wgn3lUEz3zteldItxos24MEkLQ/pfW4Bk4.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '140.83.48.204' (ECDSA) to the list of known hosts.  
ubuntu@140.83.48.204: Permission denied (publickey).  
ubuntu@vm-ubuntu:~$
```

2. Access MySQL

```
ubuntu@140.83.48.204: Permission denied (publickey).  
ubuntu@vm-ubuntu:~$ mysql  
  
Command 'mysql' not found, but can be installed with:  
  
sudo apt install mysql-client-core-8.0      # version 8.0.26-0ubuntu0.20.04.3, or  
sudo apt install mariadb-client-core-10.3   # version 1:10.3.31-0ubuntu0.20.04.1  
  
ubuntu@vm-ubuntu:~$  
  
ubuntu@vm-ubuntu:~$ sudo apt install mysql-client-core-8.0  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following NEW packages will be installed:  
  mysql-client-core-8.0  
0 upgraded, 1 newly installed, 0 to remove and 23 not upgraded.  
Need to get 4218 kB of archives.  
After this operation, 64.8 MB of additional disk space will be used.  
Get:1 http://ap-osaka-1-ad-1.clouds.archive.ubuntu.com/ubuntu focal-updates/main amd64 m  
ysql-client-core-8.0 amd64 8.0.26-0ubuntu0.20.04.3 [4218 kB]  
Fetched 4218 kB in 2s (2232 kB/s)  
Selecting previously unselected package mysql-client-core-8.0.  
(Reading database ... 145717 files and directories currently installed.)  
Preparing to unpack .../mysql-client-core-8.0_8.0.26-0ubuntu0.20.04.3_amd64.deb ...  
Unpacking mysql-client-core-8.0 (8.0.26-0ubuntu0.20.04.3) ...  
Setting up mysql-client-core-8.0 (8.0.26-0ubuntu0.20.04.3) ...  
Processing triggers for man-db (2.9.1-1) ...  
ubuntu@vm-ubuntu:~$
```

Once you successfully log in to your instances you can access your mysql but you have to install mysql client. If you do not have a mySQL client then you will get a message like the following:

```
ubuntu@vm-ubuntu:~$ mysql -u admin -p -h 10.0.0.16
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 48
Server version: 8.0.26-u2-cloud MySQL Enterprise - Cloud

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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>
```

To connect mysql with the following command `mysql -u -p -h` . After this the database is ready to be used according to your needs.

## Practicum 4

### Install WordPress on PaaS

1. Create a Database

```
mysql> create database wordpress;  
Query OK, 1 row affected (0.00 sec)
```

```
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
| wordpress |  
+-----+  
5 rows in set (0.00 sec)
```

```
mysql> grant all privileges on wordpress.* to admin;  
Query OK, 0 rows affected (0.00 sec)
```

2. Download WordPress Folder /var/www/html with command

```
ubuntu@vm-ubuntu:~$ wget https://wordpress.org/latest.tar.gz;  
--2021-09-30 09:25:47-- https://wordpress.org/latest.tar.gz  
Resolving wordpress.org (wordpress.org)... 198.143.164.252  
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 15087630 (14M) [application/octet-stream]  
Saving to: 'latest.tar.gz'  
  
latest.tar.gz      100%[=====>] 14.39M  1003KB/s   in 14s  
  
2021-09-30 09:26:02 (1020 KB/s) - 'latest.tar.gz' saved [15087630/15087630]  
ubuntu@vm-ubuntu:~$
```

3. Extract WordPress Folder /var/www/html with command

```

ubuntu@vm-ubuntu: ~
wordpress/wp-admin/js/custom-background.js
wordpress/wp-admin/js/color-picker.min.js
wordpress/wp-admin/js/auth-app.js
wordpress/wp-admin/js/code-editor.js
wordpress/wp-admin/js/common.js
wordpress/wp-admin/js/set-post-thumbnail.min.js
wordpress/wp-admin/js/postbox.min.js
wordpress/wp-admin/js/color-picker.js
wordpress/wp-admin/js/password-strength-meter.js
wordpress/wp-admin/js/customize-nav-menus.js
wordpress/wp-admin/js/editor-expand.js
wordpress/wp-admin/js/code-editor.min.js
wordpress/wp-admin/js/set-post-thumbnail.js
wordpress/wp-admin/options-permalink.php
wordpress/wp-admin/widgets.php
wordpress/wp-admin/setup-config.php
wordpress/wp-admin/install.php
wordpress/wp-admin/admin-header.php
wordpress/wp-admin/post-new.php
wordpress/wp-admin/themes.php
wordpress/wp-admin/options-reading.php
wordpress/wp-trackback.php
wordpress/wp-comments-post.php
ubuntu@vm-ubuntu: ~$

```

Furthermore, after extracting the downloaded file it can be deleted by using the command

```

ubuntu@vm-ubuntu:~$ sudo rm rf latest.tar.gz
rm: cannot remove 'rf': No such file or directory

```

4. Next install the mysql extension on php and enable it on php.ini.

```


ubuntu@vm-ubuntu:~$ sudo apt-get install php-mysql
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  php-common php7.4-common php7.4-mysql
The following NEW packages will be installed:
  php-common php-mysql php7.4-common php7.4-mysql
0 upgraded, 4 newly installed, 0 to remove and 23 not upgraded.
Need to get 1114 kB of archives.
After this operation, 8142 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://ap-osaka-1-ad-1.clouds.archive.ubuntu.com/ubuntu focal/main amd64 p
hp-common all 2:75 [11.9 kB]
Get:2 http://ap-osaka-1-ad-1.clouds.archive.ubuntu.com/ubuntu focal-updates/main
amd64 php7.4-common amd64 7.4.3-4ubuntu2.6 [980 kB]
Get:3 http://ap-osaka-1-ad-1.clouds.archive.ubuntu.com/ubuntu focal-updates/main
amd64 php7.4-mysql amd64 7.4.3-4ubuntu2.6 [121 kB]
Get:4 http://ap-osaka-1-ad-1.clouds.archive.ubuntu.com/ubuntu focal/main amd64 p
hp-mysql all 2:7.4+75 [2000 B]
Fetched 1114 kB in 2s (625 kB/s)
Selecting previously unselected package php-common.
(Reading database ... 145744 files and directories currently installed.)
Preparing to unpack .../php-common_2:75_all.deb ...
Unpacking php-common (2:75) ...
Selecting previously unselected package php7.4-common.
Preparing to unpack .../php7.4-common_7.4.3-4ubuntu2.6_amd64.deb ...
Unpacking php7.4-common (7.4.3-4ubuntu2.6) ...
Selecting previously unselected package php7.4-mysql.
Preparing to unpack .../php7.4-mysql_7.4.3-4ubuntu2.6_amd64.deb ...
Unpacking php7.4-mysql (7.4.3-4ubuntu2.6) ...
Selecting previously unselected package php-mysql.
Preparing to unpack .../php-mysql_2:7.4+75_all.deb ...
Unpacking php-mysql (2:7.4+75) ...
Setting up php-common (2:75) ...
Created symlink /etc/systemd/system/timers.target.wants/phpsessionclean.timer -
->/lib/systemd/system/phpsessionclean.timer.
Last login: Thu Sep 30 10:17:32 2021 from 192.168.100.11
ubuntu@vm-ubuntu:~$ sudo service apache2 restart
ubuntu@vm-ubuntu:~$ sudo chown www-data:www-data -R *

```

## 5. Next Process of Installation of WordPress Through Browser

← → ↻ Not secure | 140.83.48.204/wp-admin/setup-config.php?step=0 ☆ ⚙ A Reading list

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Welcome to WordPress. Before getting started, we need some information on the database. You will need to know the following items before proceeding.

1. Database name
2. Database username
3. Database password
4. Database host
5. Table prefix (if you want to run more than one WordPress in a single database)


We're going to use this information to create a `wp-config.php` file. **If for any reason this automatic file creation doesn't work, don't worry. All this does is fill in the database information to a configuration file. You may also simply open `wp-config-sample.php` in a text editor, fill in your information, and save it as `wp-config.php`.** Need more help? [We got it.](#)

In all likelihood, these items were supplied to you by your Web Host. If you don't have this information, then you will need to contact them before you can continue. If you're all ready...

[Let's go!](#)

← → ↻ Not secure | 140.83.48.204/wp-admin/setup-config.php?step=1 ☆ ⚙ A Reading list

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Below you should enter your database connection details. If you're not sure about these, contact your host.

Database Name	<input type="text" value="wordpress"/>	The name of the database you want to use with WordPress.
Username	<input type="text" value="admin"/>	Your database username.
Password	<input type="password" value=""/>	Your database password.
Database Host	<input type="text" value="10.0.0.16"/>	You should be able to get this info from your web host, if localhost doesn't work.
Table Prefix	<input type="text" value="wp_"/>	If you want to run multiple WordPress installations in a single database, change this.

[Submit](#)



All right, sparky! You've made it through this part of the installation. WordPress can now communicate with your database. If you are ready, time now to...

Run the installation

## Information needed

Please provide the following information. Don't worry, you can always change these settings later.

Site Title

Username

Names can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password  [Show](#)  
Strong

**Important:** You will need this password to log in. Please store it in a secure location.

Your Email

Double-check your email address before continuing.

Search engine visibility ☐ Discourage search engines from indexing this site

It is up to search engines to honor this request.

Install WordPress



## Success!

WordPress has been installed. Thank you, and enjoy!


Username admin

Password Your chosen password.

Log In

← → ↻ ⚠ Not secure | 140.83.48.204/wp-login.php

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Username or Email Address

Password

☐ Remember Me

[Lost your password?](#)

[← Go to Praktikum Could Computing](#)

← → ↻ ⚠ Not secure | 140.83.48.204/wp-admin/

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Praktikum Could Computing 1 0 + New Howdy, admin

Dashboard

Home Updates 1

Posts

Media

Pages

Comments

Appearance

Plugins 1

Users

Tools

Settings

Collapse menu

## Dashboard

Welcome to WordPress!

We've assembled some links to get you started:

**Get Started**

or, [change your theme completely](#)

**Next Steps**

- [Write your first blog post](#)
- [Add an About page](#)
- [Set up your homepage](#)
- [View your site](#)

**More Actions**

- [Manage widgets](#)
- [Manage menus](#)
- [Turn comments on or off](#)
- [Learn more about getting started](#)

**Site Health Status**

No information yet...

Site health checks will automatically run periodically to gather information about your site. You can also [visit the Site Health screen](#) to gather information about your site now.

**Quick Draft**

Title

Content

What's on your mind?

**At a Glance**

TEST WEBSITE →

