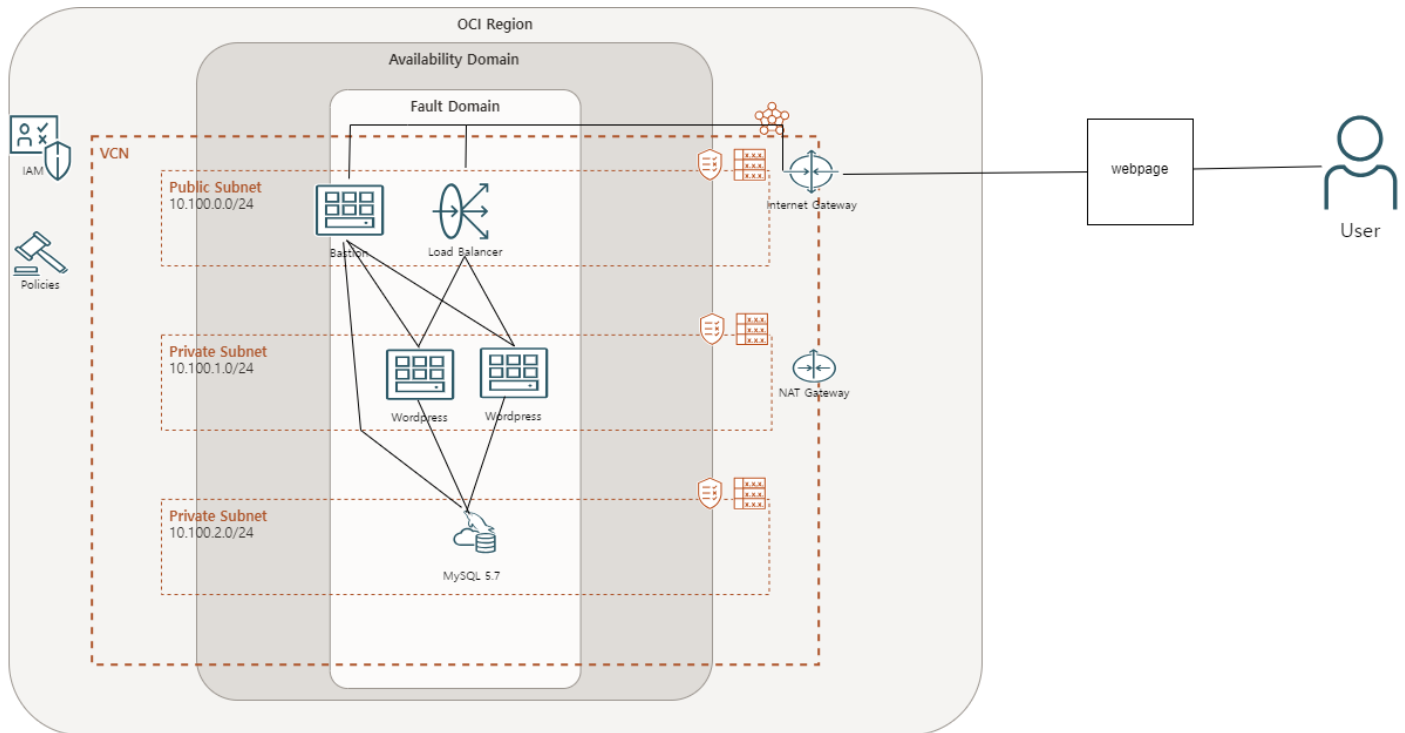


3-Tire 구성 테스트

구성도



각각의 역할

Bastion : wordpress 및 mysql 서버 접속 및 관리

Wordpress : Web Service 서버

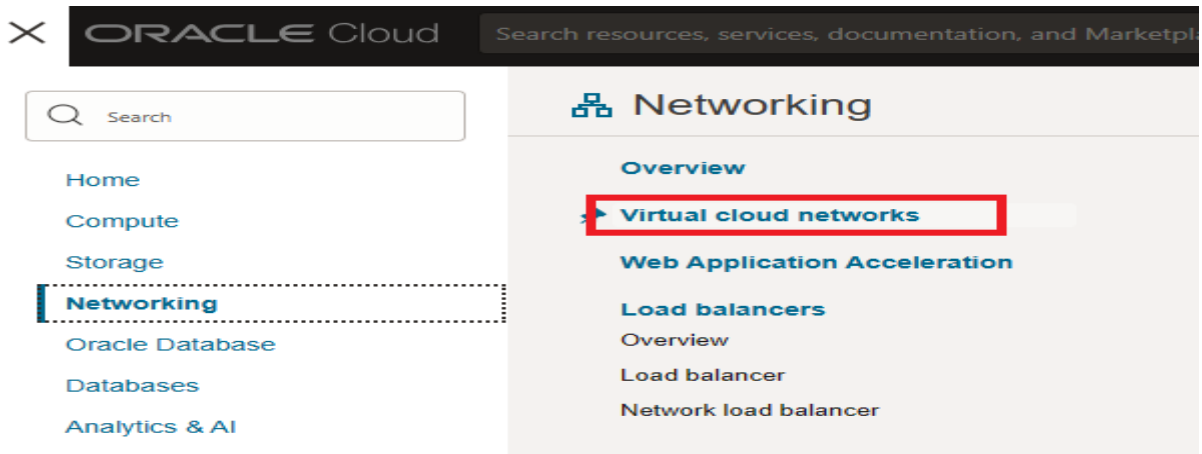
MySQL 5.7 : 설치 SOL DB 서버

구성

1. VCN 구성

- 필요사항, Public Subnet, Private subnet 2ea
- Internet gw, NAT gw, Service gw
- Security list 작성 필요

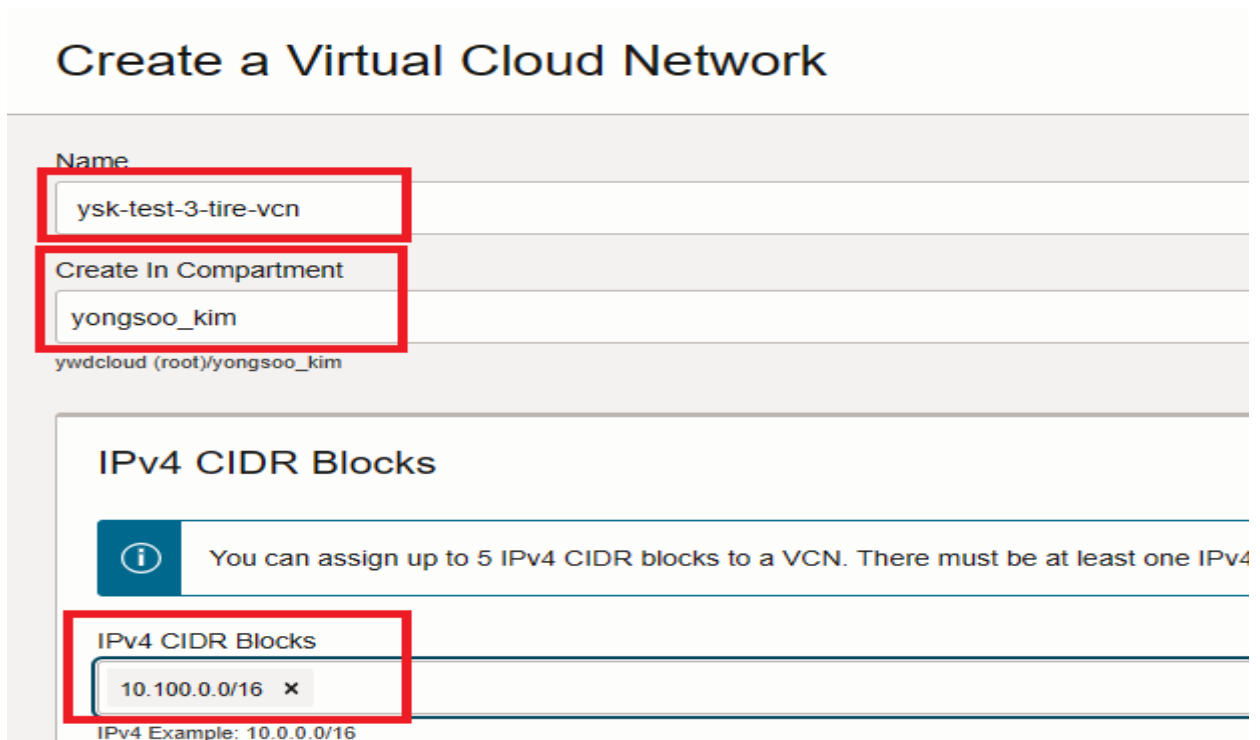
1.1. 메뉴의 VCN 클릭



1.2. Create VCN 클릭



1.3. Name, Compartment, CIDR Block 설정



1.4. Subnet 생성 (public 1개, private 2개)

Create Subnet

Name

ysk-test-public-subnet

Create In Compartment

yongsoo_kim

ywdcloud (root)/yongsoo_kim

Subnet Type

Regional (Recommended)

Instances in the subnet can be created in any availability domain in the region. Useful for high availability.

IPv4 CIDR Block

IPv4 CIDR Block

10.100.0.0/24

Specified IP addresses: 10.100.0.0-10.100.0.255 (256 IP addresses)

Subnets *in yongsoo_kim compartment*

Create Subnet

Name	State	IPv4 CIDR Block	IPv6 Prefixes	Subnet Access
ysk-test-private2-subnet	● Available	10.100.2.0/24	-	Private (Regional)
ysk-test-private1-subnet	● Available	10.100.1.0/24	-	Private (Regional)
ysk-test-public-subnet	● Available	10.100.0.0/24	-	Public (Regional)

1.5. Gateway 생성 – Internet, NAT, Service

Resources

Subnets (3)

CIDR Blocks/Prefixes (1)

Route Tables (1)

Internet Gateways (1)

Internet Gateways *in yongsoo_kim compartment*

Create Internet Gateway

Name	State
ysk-test-inter-gw	● Available

Resources

Subnets (3)

CIDR Blocks/Prefixes (1)

Route Tables (1)

Internet Gateways (1)

Dynamic Routing Gateways
Attachments (0)

Network Security Groups (0)

Security Lists (1)

DHCP Options (1)

Local Peering Gateways (0)

NAT Gateways (1)

NAT Gateways *in yongsoo_kim compartment*



Make sure to add a route rule for any subnet that needs to use **ysk-test-NAT-gw**

Create NAT Gateway

Name	State
ysk-test-NAT-gw	● Available

Service Gateways *in yongsoo_kim compartment*

Create Service Gateway

Name	State	Services
ysk-test-service-gw	● Available	All ICN Services In Oracle Services Network

1.6. Security list 생성 및 subnet 매칭

Security Lists *in yongsoo_kim compartment*

If you're having problems, use [Network Path Analyzer](#) to check your connections.

Create Security List

Name	State
ysk-test-private2-security-list	● Available
ysk-test-private1-security-list	● Available
ysk-test-public-security-list	● Available
Default Security List for ysk-test-3-tire-vcn	● Available

1.7. Route table 추가

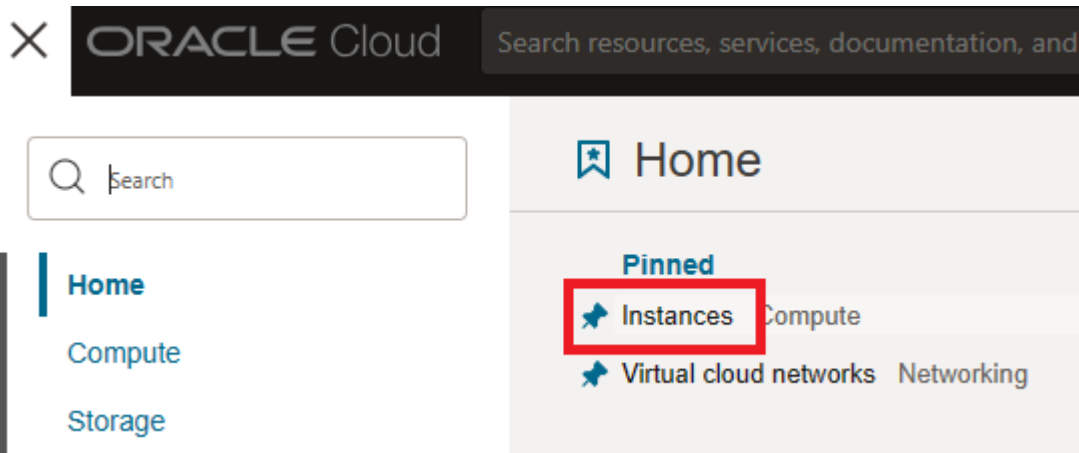
Route Tables *in yongsoo_kim compartment*

Create Route Table

Name	State	Number of Rul
private2	● Available	2
private1	● Available	2
pub	● Available	1

2. Instance 생성

2.1. Bation 생성 -compute – instances – create instance



- Instance name, compartment 확인

Create an instance to deploy and run applications, or save as a reusable template.

Name

bastion-20240327

Create in compartment

yongsoo_kim


ywdcloud (root)/yongsoo_kim

- Shape 설정


Image and shape [Collapse](#)

A [shape](#) is a template that determines the number of CPUs, amount of memory, and other resources allocated to an instance. The image is the operating system that runs on top of the shape.

Image

 Oracle Linux 7.9
Image build: 2024.02.26-0 [Change image](#)

Shape

 VM.Standard.E4.Flex
Virtual machine, 1 core OCPU, 1 GB memory, 1 Gbps network bandwidth [Change shape](#)

- VNC 매칭

Primary VNIC information

A [virtual network interface card \(VNIC\)](#) connects your instance to a [virtual cloud network \(VCN\)](#) and endpoints in and outside the VCN instance accessible from the internet.

VNIC name *Optional*

Primary network

☒ Select existing virtual cloud network ☐ Create new virtual cloud network ☐ Enter subnet OCID

VCN in **yongsoo_kim** ([Change compartment](#))

Subnet

An IP address from a public subnet and an [internet gateway](#) on the VCN are required to make this instance accessible from the internet.

☒ Select existing subnet ☐ Create new public subnet

Subnet in **yongsoo_kim** ⓘ ([Change compartment](#))

- SSH Key 보관

Add SSH keys

Generate an [SSH key pair](#) to connect to the instance using a Secure Shell (SSH) connection, or upload a public key that you already have.

☒ Generate a key pair for me ☐ Upload public key files (.pub) ☐ Paste public keys ☐ No SSH keys



Download the private key so that you can connect to the instance using SSH. It will not be shown again.

✓ Save private key

✓ [Save public key](#)

- 생성확인

<input type="checkbox"/>	Name	State	Public IP	Private IP	Shape	OCPU count	Memory (GB)	Availability domain
<input type="checkbox"/>	bastion-20240327	● Running	64.110.75.42	10.100.0.54	VM.Standard.E4.Flex	1	1	AD-1

- Ssh 접속(Mobaxterm), public ip 입력, 계정 opc, port 22, 다운받은 private key 삽입

ession settings

×

SSH
 Telnet
 Rsh
 Xdmcp
 RDP
 VNC
 FTP
 SFTP
 Serial
 File
 Shell
 Browser
 Mosh
 Aws S3
 WSL

Basic SSH settings

Remote host *
☒ Specify username
 Port

Advanced SSH settings

Terminal settings

Network settings

Bookmark settings

☒ X11-Forwarding
 ☒ Compression
 Remote environment:

Execute command:
☐ Do not exit after command ends

SSH-browser type:
☐ Follow SSH path (experimental)

☒ Use private key

Execute macro at session start:

```

? MobaXterm Personal Edition v23.6 ?
(SSH client, X server and network tools)

▶ SSH session to opc@64.110.75.42
? Direct SSH : ✓
? SSH compression : ✓
? SSH-browser : ✓
? X11-forwarding : ✗ (disabled or not supported by server)

▶ For more info, ctrl+click on help or visit our website.

[opc@bastion-20240327 ~]$ hostname
bastion-20240327
[opc@bastion-20240327 ~]$
  
```

2.2. Wordpress instance 구성

Create an instance to deploy and run applications, or save as template

Name

ysk-test-3-tire-wordpress01

Create in compartment

yongsoo_kim

ywdcloud (root)/yongsoo_kim

Create an instance to deploy and run applications, or save as template

Name

ysk-test-3-tire-wordpress02

Create in compartment

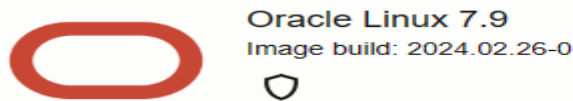
yongsoo_kim

ywdcloud (root)/yongsoo_kim

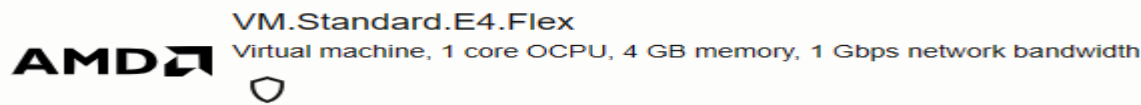
Image and shape

A [shape](#) is a template that determines the number of CPUs, amount of memory, and other resources all shape.

Image



Shape



Primary network

☒ Select existing virtual cloud network

☐ Create new virtual cloud network

☐ Enter subnet OCID

VCN in **yongsoo_kim** [\(Change compartment\)](#)

ysk-test-3-tire-vcn

Subnet

An IP address from a public subnet and an [internet gateway](#) on the VCN are required to make this instance accessible from the internet.

☒ Select existing subnet

☐ Create new public subnet

Subnet in **yongsoo_kim** ⓘ [\(Change compartment\)](#)

ysk-test-private1-subnet (regional)

Primary VNIC IP addresses

Private IPv4 address

☐ Automatically assign private IPv4 address

☒ Manually assign private IPv4 address

IPv4 address

10.100.1.100

Must be within 10.100.1.0 to 10.100.1.255. Must not already be in use.

Primary VNIC IP addresses

Private IPv4 address

☐ Automatically assign private IPv4 address ☒ Manually assign private IPv4 address

IPv4 address

10.100.1.101

Must be within 10.100.1.0 to 10.100.1.255. Must not already be in use.

Add SSH keys

Generate an [SSH key pair](#) to connect to the instance using a Secure Shell (SSH) connection, or upload a public key that you already have.

☐ Generate a key pair for me ☒ Upload public key files (.pub) ☐ Paste public keys ☐ No SSH keys

SSH public keys

Drop .pub files here. [Browse](#)

ssh-key-2024-03-27.key.pub

<input type="checkbox"/>	ysk-test-3-tire-wordpress01	● Running	-	10.100.1.101	VM.Standard.E4.Flex	1	4
--------------------------	---	--	---	--------------	---------------------	---	---

- bastion에서 접속

퍼플릭, 프리바이트 키 모두 업로드 한뒤 소유권을 400으로 변경 후

ssh -i "/home/opc/ssh-key-2022-03-17.key" opc@<instance IP> 로 접속

```
[opc@bastion-20240327 ~]$ pwd
/home/opc
[opc@bastion-20240327 ~]$ ls
ssh-key-2024-03-27.key  ssh-key-2024-03-27.key.pub
[opc@bastion-20240327 ~]$ chmod 400 ssh-key-2024-03-27.key*
[opc@bastion-20240327 ~]$ ll
[opc@bastion-20240327 ~]$ ll
total 8
-r----- 1 opc opc 1679 Mar 27 02:10 ssh-key-2024-03-27.key
-r----- 1 opc opc 399 Mar 27 02:10 ssh-key-2024-03-27.key.pub
[opc@bastion-20240327 ~]$
[opc@bastion-20240327 ~]$ ssh -i "/home/opc/ssh-key-2024-03-27.key" opc@10.100.1.101
The authenticity of host '10.100.1.101 (10.100.1.101)' can't be established.
ECDSA key fingerprint is SHA256:hNjdAB/JMhAlg0Q7fQlLYsKKPax2+J4Gu8UGJ/uYg9E.
ECDSA key fingerprint is MD5:1e:a6:6b:3b:9a:d7:c2:65:e8:cf:52:f3:7d:cd:eb:88.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.100.1.101' (ECDSA) to the list of known hosts.
[opc@ysk-test-3-tire-wordpress01 ~]$
[opc@ysk-test-3-tire-wordpress01 ~]$
```

```
[opc@bastion-20240327 ~]$ ssh -i "/home/opc/ssh-key-2024-03-27.key" opc@10.100.1.100
The authenticity of host '10.100.1.100 (10.100.1.100)' can't be established.
ECDSA key fingerprint is SHA256:/k3fqMFETfLCVFz2XiVnXghL7Ee2gGc2Lq66VNhuEN0.
ECDSA key fingerprint is MD5:4d:e7:61:f6:42:cd:09:63:ab:7b:4f:6a:20:74:b9:b5.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.100.1.100' (ECDSA) to the list of known hosts.
[opc@ysk-test-3-tire-wordpress02 ~]$
```

- DB(MySQL57) instance 생성

☐
ysk-test-3-tire-mysql
● Running
-
10.100.2.50
VM.Standard.E4.Flex
1

```

[opc@bastion-20240327 ~]$ ssh -i "/home/opc/ssh-key-2024-03-27.key" opc@10.100.2.50
The authenticity of host '10.100.2.50 (10.100.2.50)' can't be established.
ECDSA key fingerprint is SHA256:khPHN8fesUjow6AKzRonhu4YMr1P3QgkvVH7gbTz48c.
ECDSA key fingerprint is MD5:05:66:e9:a6:44:36:a4:a5:a4:7f:ce:85:0c:e7:8e:b6.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '10.100.2.50' (ECDSA) to the list of known hosts.
[opc@ysk-test-3-tire-mysql ~]$

```

2.3. 각 instance 별 VCN의 Security list에 필요 port 설정하기

- Wordpress instance : 80, 443
- MySQL57 : 3306, 33060

Ingress Rules

Add Ingress Rules
Edit
Remove

<input type="checkbox"/>	Stateless ▾	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Allows	Description
<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	10.100.0.0/16	ICMP			3	ICMP traffic for: 3 Destination Unreachable	
<input type="checkbox"/>	No	10.100.1.0/24	ICMP			3	ICMP traffic for: 3 Destination Unreachable	
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	80		TCP traffic for ports: 80	
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	443		TCP traffic for ports: 443 HTTPS	

Ingress Rules

Add Ingress Rules
Edit
Remove

<input type="checkbox"/>	Stateless ▾	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Allows	Description
<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	10.100.0.0/16	ICMP			3	ICMP traffic for: 3 Destination Unreachable	
<input type="checkbox"/>	No	10.100.2.0/24	ICMP			3	ICMP traffic for: 3 Destination Unreachable	
<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	10.100.1.0/24	TCP	All	3306		TCP traffic for ports: 3306	
<input type="checkbox"/>	No	10.100.1.0/24	TCP	All	33060		TCP traffic for ports: 33060	

3. Apache and PHP 설치

참고 Page

Install WordPress CMS on Oracle Linux with MySQL database

https://docs.oracle.com/en/learn/wrdprs_mysqlpbs_wrkshp/index.html#install-and-configure-apache-http-server-with-php

- Wordpress01/02 서버 접속 및 다음 내용 실행
- Httpd 설치
 - ✓ `sudo yum install -y httpd`
- 서비스 enable
 - ✓ `sudo yum install -y httpd`
- 방화벽 허용 설정
 - `sudo firewall-cmd --permanent --add-port=80/tcp`
 - ✓ `sudo firewall-cmd --permanent --add-port=443/tcp`
 - ✓ `sudo firewall-cmd --reload`
- Repository 추가
 - ✓ `sudo yum -y install https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm`
 - ✓ `sudo yum -y install https://rpms.remirepo.net/enterprise/remi-release-7.rpm`
 - ✓ `sudo yum-config-manager --enable remi-php74`
- PHP 설치
 - ✓ `sudo yum install -y php`
 - ✓ `sudo systemctl restart httpd`
- php 페이지 생성
 - ✓ `echo -e '<?php $nphpinfo();' | sudo tee /var/www/html/test.php`

4. MySQL5.7 설치

참고 Page

<https://serverok.in/how-to-install-mysql-5-7-on-oracle-linux-7>

- Mysql Repository 활성화 확인

```
[opc@ysk-test-3-tire-mysql ~]$ sudo yum repolist all | grep -i mysql
ol7_MySQL55/x86_64 MySQL 5.5 for Oracle Lin disabled
ol7_MySQL56/x86_64 MySQL 5.6 for Oracle Lin disabled
ol7_MySQL57/x86_64 MySQL 5.7 for Oracle Lin disabled
ol7_MySQL80/x86_64 MySQL 8.0 for Oracle Lin enabled: 440
ol7_MySQL80_connectors_community/x86_64 MySQL 8.0 Connectors Com enabled: 111
ol7_MySQL80_tools_community/x86_64 MySQL 8.0 Tools Communit enabled: 37
```

- MySQL 8 비활성 및 MySQL5.7 활성화

- ✓ yum install -y yum-utils

- ✓ yum-config-manager --disable ol7_MySQL80 ol7_MySQL80_connectors_community
ol7_MySQL80_tools_community

- ✓ yum-config-manager --enable ol7_MySQL57

```
[opc@ysk-test-3-tire-mysql ~]$ sudo yum repolist all | grep -i mysql
ol7_MySQL55/x86_64 MySQL 5.5 for Oracle Lin disabled
ol7_MySQL56/x86_64 MySQL 5.6 for Oracle Lin disabled
ol7_MySQL57/x86_64 MySQL 5.7 for Oracle Lin enabled: 683
ol7_MySQL80/x86_64 MySQL 8.0 for Oracle Lin disabled
ol7_MySQL80_connectors_community/x86_64 MySQL 8.0 Connectors Com disabled
ol7_MySQL80_tools_community/x86_64 MySQL 8.0 Tools Communit disabled
```

- 기존 설치된 MySQL 8의 RPM 확인 후 삭제

```
[opc@ysk-test-3-tire-mysql ~]$ sudo rpm -qa | grep mysql
mysql-community-libs-compat-8.0.36-1.el7.x86_64
mysql-community-client-plugins-8.0.36-1.el7.x86_64
mysql-community-libs-8.0.36-1.el7.x86_64
mysql-release-el7-1.0-5.el7.x86_64
mysql-community-common-8.0.36-1.el7.x86_64
```

```
sudo rpm -e --nodeps mysql-community-libs-compat-8.0.36-1.el7.x86_64
sudo rpm -e --nodeps mysql-community-client-plugins-8.0.36-1.el7.x86_64
sudo rpm -e --nodeps mysql-community-libs-8.0.36-1.el7.x86_64
sudo rpm -e --nodeps mysql-community-common-8.0.36-1.el7.x86_64
```

- Mysql-release-el7-~~~ RPM은 삭제하지 않도록 한다

- MySQL 5.7 설치

```
[opc@ysk-test-3-tire-mysql ~]$ sudo rpm -qa | grep mysql
mysql-release-el7-1.0-5.el7.x86_64
[opc@ysk-test-3-tire-mysql ~]$
[opc@ysk-test-3-tire-mysql ~]$ sudo yum install mysql-community-server
Loaded plugins: langpacks, ulninfo
Resolving Dependencies
--> Running transaction check
--> Package mysql-community-server.x86_64 0:5.7.44-1.el7 will be installed
--> Processing Dependency: mysql-community-common(x86-64) = 5.7.44-1.el7 for package: mysql-community-server-5.7.44-1.el7.x86_64
--> Processing Dependency: mysql-community-client(x86-64) >= 5.7.9 for package: mysql-community-server-5.7.44-1.el7.x86_64
--> Running transaction check
--> Package mysql-community-client.x86_64 0:5.7.44-1.el7 will be installed
--> Processing Dependency: mysql-community-libs(x86-64) >= 5.7.9 for package: mysql-community-client-5.7.44-1.el7.x86_64
--> Package mysql-community-common.x86_64 0:5.7.44-1.el7 will be installed
--> Running transaction check
--> Package mysql-community-libs.x86_64 0:5.7.44-1.el7 will be installed
--> Finished Dependency Resolution
```

Dependencies Resolved

Package	Arch	Version	Repository	Size
Installing:				
mysql-community-server	x86_64	5.7.44-1.el7	ol7_MySQL57	184 M
Installing for dependencies:				
mysql-community-client	x86_64	5.7.44-1.el7	ol7_MySQL57	31 M
mysql-community-common	x86_64	5.7.44-1.el7	ol7_MySQL57	313 k
mysql-community-libs	x86_64	5.7.44-1.el7	ol7_MySQL57	2.9 M

Transaction Summary

Install 1 Package (+3 Dependent packages)

Total download size: 219 M

Installed size: 930 M

Is this ok [y/d/N]: y

Downloading packages:

```
(1/4): mysql-community-common-5.7.44-1.el7.x86_64.rpm | 313 kB 00:00:00
(2/4): mysql-community-libs-5.7.44-1.el7.x86_64.rpm | 2.9 MB 00:00:00
(3/4): mysql-community-client-5.7.44-1.el7.x86_64.rpm | 31 MB 00:00:00
(4/4): mysql-community-server-5.7.44-1.el7.x86_64.rpm | 184 MB 00:00:01
```

```
Total 114 MB/s | 219 MB 00:00:01
```

Running transaction check

Running transaction test

Transaction test **succeeded**

Running transaction

Warning: RPMDB altered outside of yum.

** Found 2 pre-existing rpmdB **problem(s)**, 'yum check' output follows:

2:postfix-2.10.1-9.el7.x86_64 has missing requires of libmysqlclient.so.18()(64bit)

2:postfix-2.10.1-9.el7.x86_64 has missing requires of libmysqlclient.so.18(libmysqlclient_18)(64bit)

```
Installing : mysql-community-common-5.7.44-1.el7.x86_64 1/4
Installing : mysql-community-libs-5.7.44-1.el7.x86_64 2/4
Installing : mysql-community-client-5.7.44-1.el7.x86_64 3/4
Installing : mysql-community-server-5.7.44-1.el7.x86_64 4/4
Verifying : mysql-community-server-5.7.44-1.el7.x86_64 1/4
Verifying : mysql-community-client-5.7.44-1.el7.x86_64 2/4
Verifying : mysql-community-libs-5.7.44-1.el7.x86_64 3/4
Verifying : mysql-community-common-5.7.44-1.el7.x86_64 4/4
```

Installed:

mysql-community-server.x86_64 0:5.7.44-1.el7

Dependency Installed:

mysql-community-client.x86_64 0:5.7.44-1.el7

mysql-community-libs.x86_64 0:5.7.44-1.el7

mysql-community-common.x86_64 0:5.7.44-1.el7

Complete!

- MySQL5.7 서비스 활성화

```
[opc@ysk-test-3-tire-mysql ~]$
[opc@ysk-test-3-tire-mysql ~]$ sudo systemctl enable mysqld --now
[opc@ysk-test-3-tire-mysql ~]$
```

- 임시 PASSWORD 확인

```
[opc@ysk-test-3-tire-mysql ~]$ sudo grep 'temporary password' /var/log/mysql.log
2024-03-28T02:15:53.731219Z 1 [Note] A temporary password is generated for root@localhost: _pg50u-kKmu>
```

- MySQL 보안 설정

```
## MySQL 보안 설정
sudo mysql_secure_installation
```

```
# root 계정 임시 비밀번호 입력
Enter password for user root:

# root 계정 새 비밀번호 입력
New password:
Re-enter new password:

# root 계정 비밀번호 변경 여부 (Y 권장)
Change the password for root?
Do you wish to continue with the password provided?

# 익명 사용자 삭제 여부 (Y 권장)
Remove anonymous users?

# 원격 접속 차단 여부 (N 권장)
Disallow root login remotely?

# test DB 및 접속 정보 삭제 여부 (Y 권장)
Remove test database and access to it?

# root 비밀번호 및 권한 적용 여부 (Y 권장)
Reload privilege tables now?
```

- 접속 확인

```
[opc@ysk-test-3-tire-mysql ~]$ sudo mysql -uroot -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 5
Server version: 5.7.44 MySQL Community Server (GPL)

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owners.

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

mysql>
```

5. Wordpress CMS 설치

```
sudo yum install -y php-mysqlnd php-zip php-gd php-mcrypt php-mbstring php-xml php-json
sudo systemctl restart httpd
curl -O https://wordpress.org/latest.tar.gz
sudo curl -O https://wordpress.org/latest.tar.gz
sudo tar xzf latest.tar.gz -C /var/www/html/ --strip 1
sudo chown apache. -R /var/www/html/
sudo mkdir /var/www/html/wp-content/uploads
sudo chown apache:apache /var/www/html/wp-content/uploads
sudo chcon -t httpd_sys_rw_content_t /var/www/html -R
```

6. MySQL database and user 생성

```
create database wordpress;
create user wordpress IDENTIFIED BY 'ComplexPass0rd!';
GRANT ALL PRIVILEGES ON wordpress.* To wordpress;
\quit;
```

7. Network Load Balancer 생성

참고 docs.oracle.com/ko/learn/oci-network-lb-with-instances/index.html#task-4-create-a-new-oci-flexible-network-load-balancer

- Security-list 추가

ysk-test-NLB-security-list

Instance traffic is controlled by firewall rules on each Instance in addition to this Security List

[Move resource](#) [Add tags](#) [Terminate](#)

Security List Information

Tags

OCID: ...pvdw5q [Show](#) [Copy](#)

Compartment: yongsoo_kim

Created: Thu, Mar 28, 2024, 04:05:27 UTC

Ingress Rules

[Add Ingress Rules](#) [Edit](#) [Remove](#)

<input type="checkbox"/>	Stateless ▾	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Allows
<input type="checkbox"/>	No	0.0.0.0/0	TCP	All	80		TCP traffic for ports: 80

- Subnet 생성

Subnets *in yongsoo_kim compartment*

Create Subnet				
Name	State	IPv4 CIDR Block	IPv6 Prefixes	Subnet Access
ysk-test-nlb-subnet	● Available	10.100.3.0/24	-	Public (Regional)

- Network Load Balancer 생성 (스크린샷을 찍지못해서 기존 문서의 스크린샷으로 대체합니다)

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Create network load balancer [Help](#)

1 Add details

2 Configure listener

3 Choose backends

4 Review and create

A network load balancer provides automated traffic distribution from one entry point to multiple servers in a backend set. The network load balancer ensures that your services remain available by directing traffic only to healthy servers in the backend set.

Load balancer name

1 IH-NLE

Choose visibility type

2

Public

You can use the assigned public IP address as a front end for incoming traffic. ✓

Private

You can use the assigned private IP address as a front end for internal incoming VCN traffic.

☐ Allow IPv6 address assignment

Enables a dual-stack IPv4/IPv6 implementation for your load balancer. Learn more about [IPv6 addresses](#).

Assign a public IP address

3

Ephemeral IPv4 address

Automatically assign an IPv4 address from the Oracle pool. ✓

Reserved IPv4 address

Select an existing reserved IPv4 address or create a new one from one of your IP pools.

Choose networking

Virtual cloud network in **IwanHoogendoorn** ([Change compartment](#))

4

Next

Cancel

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- 앞에서 추가한 subnet 선택

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Create network load balancer [Help](#)

1 Add details

2 Configure listener

3 Choose backends

4 Review and create

Choose networking

1

Virtual cloud network in **IwanHoogendoorn** ([Change compartment](#))

IH-VCN

2

Subnet in **IwanHoogendoorn** ([Change compartment](#))

IH-PUBLIC-SUBNET

☐ Use network security groups to control traffic ⓘ

[Show advanced options](#)

3

Next

Cancel

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- 리스너 Name 설정 및 80 port 오픈






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Create network load balancer [Help](#)

✓ Add details

2 Configure listener

3 Choose backends

4 Review and create

A listener is a logical entity that checks for incoming traffic on the network load balancer's IP address. You must configure at least one listener for each traffic type in order to handle UDP, TCP, or UDP/TCP traffic. You can configure additional listeners after you create your network load balancer.

Listener name 1

IH-LISTNER-80

Specify the type of traffic your listener handles 2

UDP

TCP ✓

UDP/TCP

Ingress traffic port

☐ Use any port

This will use a wildcard or 0, as the port.

☒ Specify the port 3

80

This port will be used for the backend ports, if any, selected in the following step.

Previous

Next 4

Cancel

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- Backend name 설정 및 Backends 서버 추가 (기존 생성한 compute instance 2대)

Create network load balancer

Add details

Configure listener

Choose backends

Review and create

A network load balancer distributes traffic balancing policy, a health check policy, and backend set name.

Backend set name
IH-BACKEND-SET

Select backends

Add by compute instance *Optional*

No backends selected. Click add backends after you create the network load balancer.

Add backends

☒ Preserve source IP ⓘ

Specify health check policy

A health check is a test to confirm the Based on a time interval you specify, the backends.

Protocol

Previous

Next

Cancel

Add backends

Choose how to add backends by selecting compute instances or by entering IP addresses.

Backend type

Compute instances

Backend IPv4 compute instances

Instance in **IwanHoogendoorn**
[\(Change compartment\)](#)

IP address

Availability domain

Port ⓘ

Weight ⓘ

1 IH-WEBSEVER-01 ⓘ 10.0.2.7 ⓘ fyxu:eu-amsterdam-1-AD-1 80 1 X

3 Instance in **IwanHoogendoorn**
[\(Change compartment\)](#)

IP address

Availability domain

Port ⓘ

Weight ⓘ

3 IH-WEBSEVER-02 ⓘ 10.0.2.140 ⓘ fyxu:eu-amsterdam-1-AD-1 80 1 X

4 Instance in **IwanHoogendoorn**
[\(Change compartment\)](#)

IP address

Availability domain

Port ⓘ

Weight ⓘ

4 IH-WEBSEVER-03 ⓘ 10.0.2.150 ⓘ fyxu:eu-amsterdam-1-AD-1 80 1 X

+ Another backend 2

5 Add backends Cancel

- 헬스체크 port 설정

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Cloud Classic >

Search resources, services, documentation, and Marketplace

Netherlands Northwest (Amsterdam) >

Create network load balancer

✓ Add details

✓ Configure listener

3 Choose backends

4 Review and create

Specify health check policy

A health check is a test to confirm the availability of backends. A health check can be a request or a connection attempt. Based on a time interval you specify, the network load balancer applies the health check policy to continuously monitor backends.

Protocol

HTTP

Port

Optional

80

Interval in MS

Optional

10000

Timeout in MS

Optional

3000

Number of retries

Optional

3

Status code

200

URL path (URI)

/

Response body (regular expression)

Optional

Show advanced options

Previous

Next

Cancel

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- NLB 생성

8. Wordpress 실행(스크린샷을 찍지 못하여 검색 사진을 첨부합니다.)

- NLB public ip를 browser 접속 확인





워드프레스에 오신 것을 환영합니다. 시작하기 전에, 데이터베이스에 몇가지 정보가 필요합니다. 계속 진행 하기 전에 다음의 항목을 아셔야 합니다.

1. 데이터베이스 이름
2. 데이터베이스 사용자명
3. 데이터베이스 비밀번호
4. 데이터베이스 호스트
5. 테이블 접두어(하나의 데이터베이스에서 하나 이상의 워드프레스를 운영하고자 할 경우)

해당 정보를 wp-config.php 파일을 생성하는데 사용합니다. 어떠한 이유로 이러한 자동 파일 생성이 작동하지 않는다면 걱정할 필요 없습니다. 환경 설정 파일에 데이터베이스 정보를 입력하기만 하면 됩니다. 또한 wp-config-sample.php를 텍스트 편집기에 열고 자신의 정보를 입력한 다음 wp-config.php로 저장하면 됩니다. 도움이 더 필요하세요? [링크를 참고하세요.](#)

마찬가지로 이 항목들은 웹호스트에서 제공됐습니다. 이 정보가 없다면 계속하기 전에 웹호스트에 연락해야 합니다. 모든 것이 준비되면...

Let's go!



아래에서 데이터베이스 연결 상세를 입력해야 합니다. 이것을 잘 모른다면 호스트에 연락하세요.

데이터베이스 이름	<input type="text" value="wordpress"/>	워드프레스에 사용할 데이터베이스 이름.
사용자명	<input type="text" value="사용자명"/>	데이터베이스 사용자명.
비밀번호	<input type="text" value="비밀번호"/>	데이터베이스 비밀번호.
데이터베이스 호스트	<input type="text" value="localhost"/>	localhost가 작동하지 않는다면 이 정보는 자신의 웹호스팅에서 받을 수 있습니다.
테이블 접두어	<input type="text" value="wp_"/>	하나의 데이터베이스에서 여러 개의 워드프레스를 설치하여 운영하려면 이것을 변경하세요.

저장하기

- Database 이름 : wordpress
- 사용자명 : wordpress
- 비밀번호 :

- 데이터베이스 호스트 : mysql5.7 linux server ip
- 테이블 접두어 : wordpress1 instance – wp_, wordpress2 instance – wp2_
- 설치시 각각의 instance를 하나씩 stop 시킨 후에 설치 후에 다시 start

◆ 설치시 database 연결이 실패하여 Test 에서는 다음의 사항을 추가하였습니다.

- Database instance 에 대한 security_list Ingress Rules

<input type="checkbox"/>	No	10.100.1.0/24	TCP	All	3306	TCP traffic for ports: 3306
<input type="checkbox"/>	No	10.100.1.0/24	TCP	All	33060	TCP traffic for ports: 33060
<input checked="" type="checkbox"/>	No	0.0.0.0/0	TCP	All	3306	TCP traffic for ports: 3306

- 서버 방화벽 disable 및 selinux stop

```
[opc@ysk-test-3-tire-mysql ~]$ sudo systemctl status firewalld
● firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; disabled; vendor preset: enabled)
   Active: inactive (dead)
     Docs: man:firewalld(1)
[opc@ysk-test-3-tire-mysql ~]$
[opc@ysk-test-3-tire-mysql ~]$ getenforce
Disabled
```

9. Web 접속 test

<input type="checkbox"/>	ysk-test-3-tire-wordpress01	● Stopped	-	10.100.1.101
<input type="checkbox"/>	ysk-test-3-tire-wordpress02	● Running	-	10.100.1.100

<input type="checkbox"/>	ysk-test-3-tire-wordpress01	● Stopped	-	10.100.1.101	VM.Standard.E4.Flex
<input type="checkbox"/>	ysk-test-3-tire-wordpress02	● Stopped	-	10.100.1.100	VM.Standard.E4.Flex

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🔍 즐겨찾기 가져오기 | 🌐 (주)에티버스



흠... 이 페이지에 연결할 수 없습니다.

<input type="checkbox"/>	ysk-test-3-tire-wordpress01	● Running	-	10.100.1.101
<input type="checkbox"/>	ysk-test-3-tire-wordpress02	● Stopped	-	10.100.1.100

← → ↻ 🏠 ⚠️ 안전하지 않음 | 64.110.68.167

🔍 즐겨찾기 가져오기 | 🌐 (주)에티버스

test-3tier

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