

LAPORAN MATA KULIAH KOMPUTASI AWAN

**Ujian Tengah Semester
(UTS)**

Oleh:

**MOCHABIZARDAFFA
W**

NIM: 1941720041

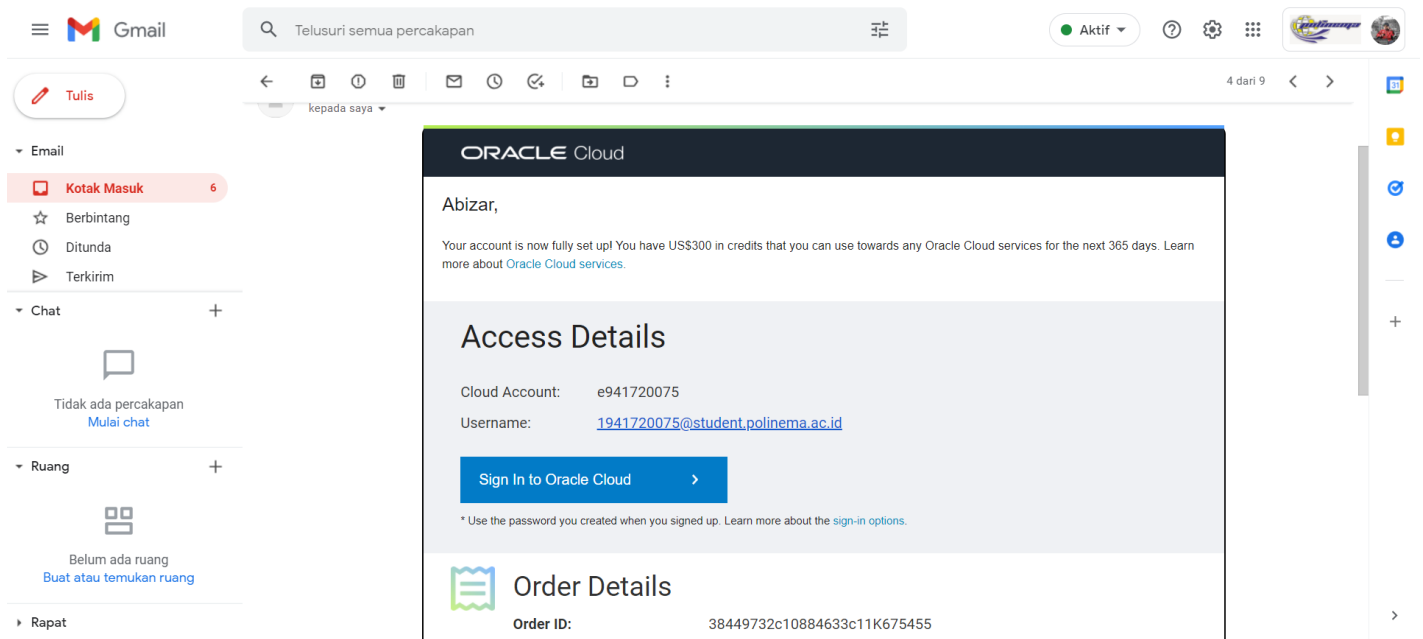


**PROGRAM STUDI TEKNIK INFORMATIKA JURUSAN
TEKNOLOGI INFORMASI POLITEKNIK NEGERI
MALANG**

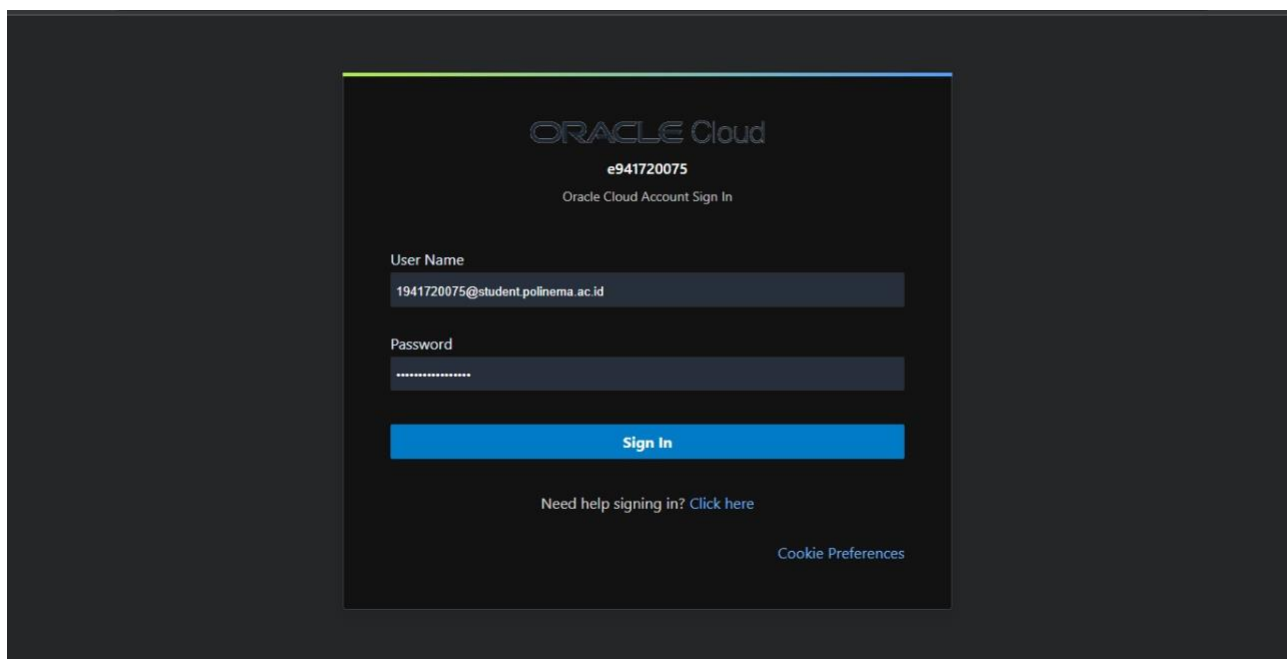
OKTOBER 2021

Ujian Bagian VM :

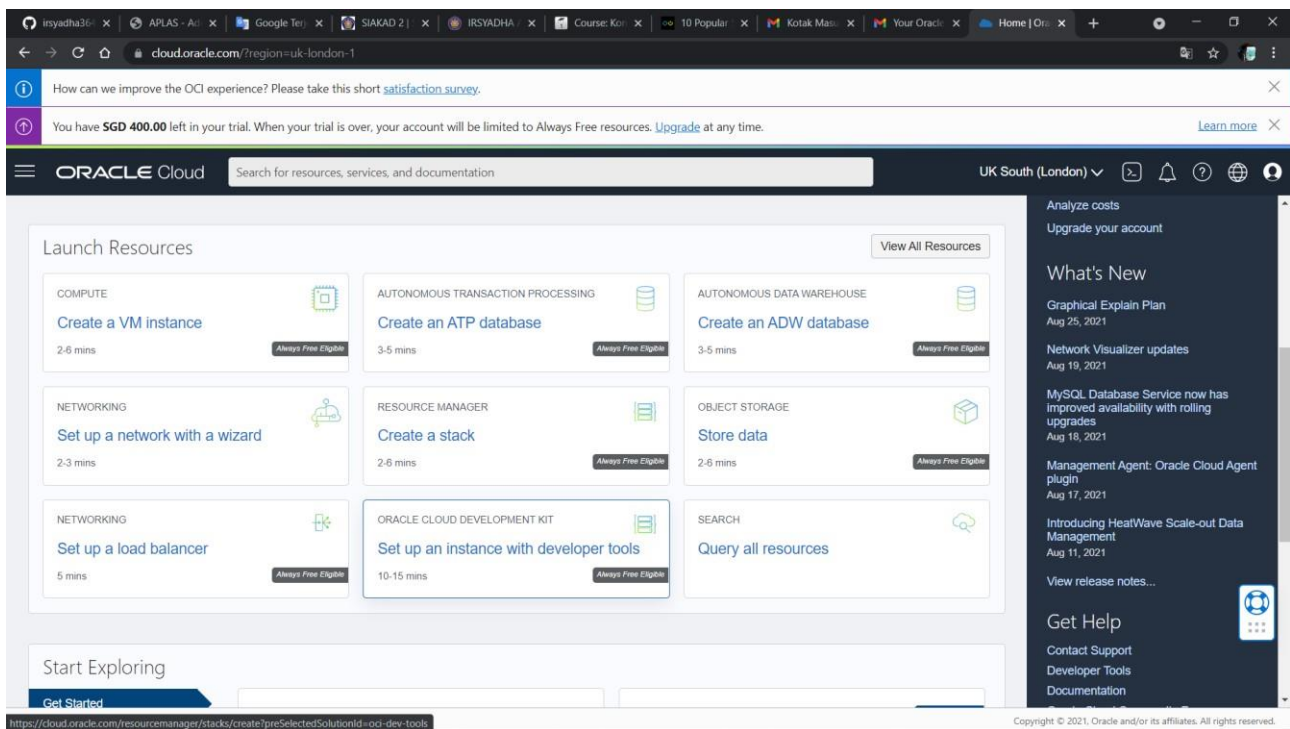
PRAKTIKUM :



Sebelum memasuki ORACLE Cloud, kita harus Login di Gmail yang telah ter-verifikasi oleh pihak ORACLE. Pesan akan sampai setelah melakukan pendaftaran. Untuk login klik “Sign In to Oracle Cloud”.



Ketika sudah masuk ke halaman login, masukkan username dan password anda sesuai pendaftaran yang anda lakukan sebelumnya.



Setelah memasuki halaman website, silahkan pilih salah satu layanan yang ada di Oracle Cloud.

Untuk sekarang saya memilih “Crate a VM instance” sebagai contoh. Ketika memasuki halamannya sesuaikan informasi seperti yang kamu inginkan.

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](#)

Jangan lupa download di bagian ini, karena file yang di download akan penting untuk kedepannya. Setelah semua sudah selesai klik “Create” pada pojok layar bawah sebelah kiri pada halaman website ORACLE.

Setelah melakukan “Create”, anda akan memasuki halaman informasi dan pengaktifan. Untuk mengaktifkan program klik “Start” pada pojok layar atas sebelah kiri pada halaman website ORACLE dan tunggu dari “STARTING” menjadi “RUNNING”.

The screenshot displays the Oracle Cloud console interface. At the top, there's a navigation bar with the Oracle Cloud logo, a search bar, and the region 'UK South (London)'. Below this, the breadcrumb trail shows 'Compute » Instances » Instance details » Work requests'. The main content area features a large orange square with a white 'I' icon and the word 'STARTING' below it. To the right of this, the instance name 'instance-20210909-1527' is shown with an 'Always Free' badge. Below the name are buttons for 'Start', 'Stop', 'Reboot', 'Edit', and 'More Actions'. The 'Instance information' tab is active, showing details under 'General information' and 'Instance access'. The 'General information' section includes fields for Availability domain, Fault domain, Region, OCID, Launch time, Compartment, and Capacity type. The 'Instance access' section provides the Public IP address, Username, Primary VNIC details (Private IP address, Network security groups, Subnet, and Private DNS record).

Compute » Instances » Instance details » Work requests

instance-20210909-1527 **Always Free**

Start Stop Reboot Edit More Actions

Instance information Oracle Cloud Agent Tags

General information

Availability domain: AD-1
Fault domain: FD-2
Region: uk-london-1
OCID: ...zgazia [Show](#) [Copy](#)
Launched: Thu, Sep 9, 2021, 08:28:36 UTC
Compartment: y941720041 (root)
Capacity type: On-demand

Instance access

The instance must be running before you can connect to it.

Public IP address: 132.145.57.150 [Copy](#)
Username: opc

Primary VNIC

Private IP address: 10.0.0.227
Network security groups: None [Edit](#) ⓘ
Subnet: [subnet-20210909-1527](#)
Private DNS record: Enable

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ORACLE Cloud Search for resources, services, and documentation UK South (London) > > > > >

Compute > Instances > Instance details > Work requests

instance-20210909-1527 Always Free

Start Stop Reboot Edit More Actions

Instance information Oracle Cloud Agent Tags

General information

Availability domain: AD-1
 Fault domain: FD-2
 Region: uk-london-1
 OCID: ...zgazla [Show](#) [Copy](#)
 Launched: Thu, Sep 9, 2021, 08:28:36 UTC
 Compartment: y941720041 (root)
 Capacity type: On-demand

Instance details

Virtual cloud network: [vcn-20210909-1527](#)
 Maintenance reboot: -

Instance access

You [connect to a running Linux instance](#) using a Secure Shell (SSH) connection. You'll need the private key from the SSH key pair that was used to create the instance.

Public IP address: 132.145.57.150 [Copy](#)
 Username: opc

Primary VNIC

Private IP address: 10.0.0.227
 Network security groups: None [Edit](#) ⓘ
 Subnet: [subnet-20210909-1527](#)
 Private DNS record: Enable
 Hostname: instance-20210909-1527

RUNNING

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Setelah sudah Di“RUNNING” dan sudah dapat file private key, bisa langsung ke tahap yang selanjutnya.

Putty Key Generator ? X

File Key Conversions Help

Key

Public key for pasting into OpenSSH authorized_keys file:

```
ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAQDNkEvHuu4jlpX85p0ye5eVU/qoxfbn
+flUVrgitDIPbs5gcBm0MtvWzyMWDTAJfrQ5ewkydGelyV11gRLfdMfyjGDOr
+LrxnQYorjY1S2Jc2FMpMwxRYBCtXGMql+GvXfp09TJdLRKmxfcfdv/
+w8oldliUduT9cp0gRiUBogocDTR4BjbMW03sKLStdWzSgOf64NA3I2/rA2NTqPf1NxPacDV
m3Qj882TYGkJOWhizfpq4vr1mx2q3Y1W82rFhSXFoKQhCpaTVE
```

Key fingerprint: `ssh-rsa 2048 c7:91:d4:62:11:18:53:37:15:ad:dd:f2:0d:f3:b1:77`

Key comment: `imported-openssh-key`

Key passphrase:

Confirm passphrase:

Actions

Generate a public/private key pair Generate

Load an existing private key file Load

Save the generated key Save public key Save private key

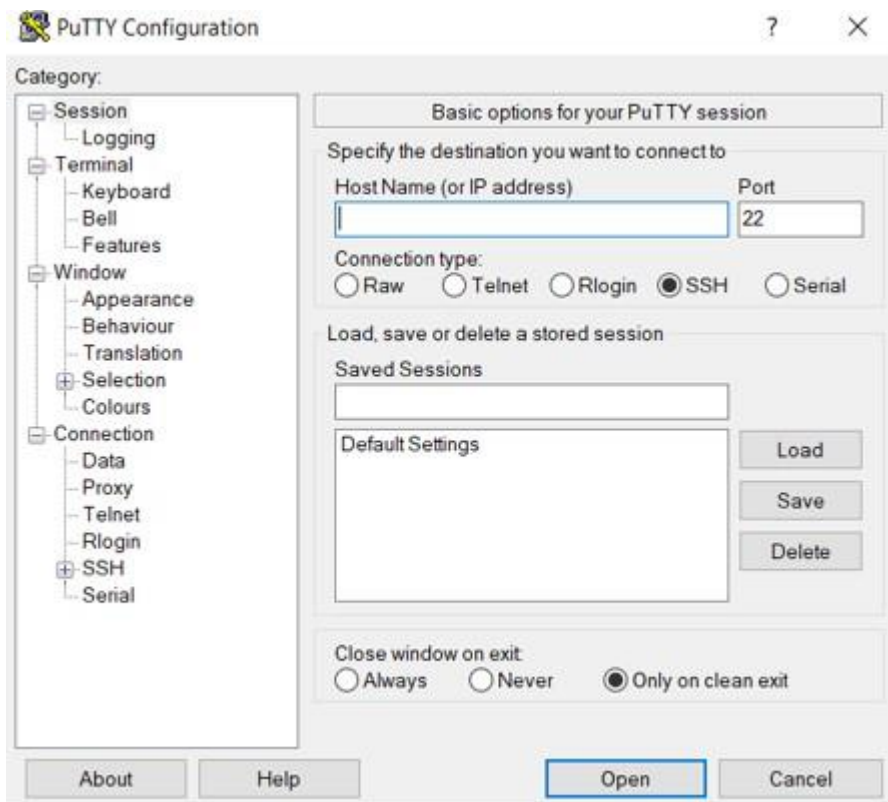
Parameters

Type of key to generate:

☒ RSA ☐ DSA ☐ ECDSA ☐ Ed25519 ☐ SSH-1 (RSA)

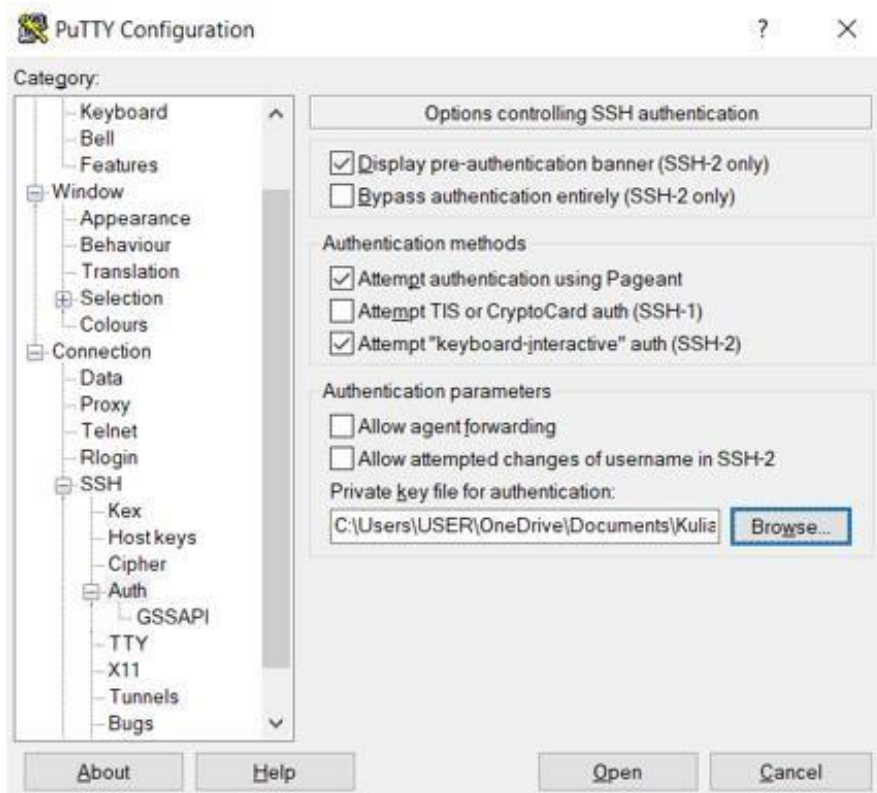
Number of bits in a generated key:

Buatlah file putty key file dengan puttygen. Setelah itu lah pilih load dan cari file private key yang sudah di download dari hasil pembuatan instance. Lalu klik kalimat “Save private key”.



Setelah itu buka putty untuk menggunakan private key yang sudah di generate menggunakan puttygen.

Pada kolom hostname isi menggunakan ip public dari instance dengan port dan koneksi tipe yaitu 22 dan ssh. Dan jangan lupa mengisi saved session, supaya ada save ketika putty keluar.

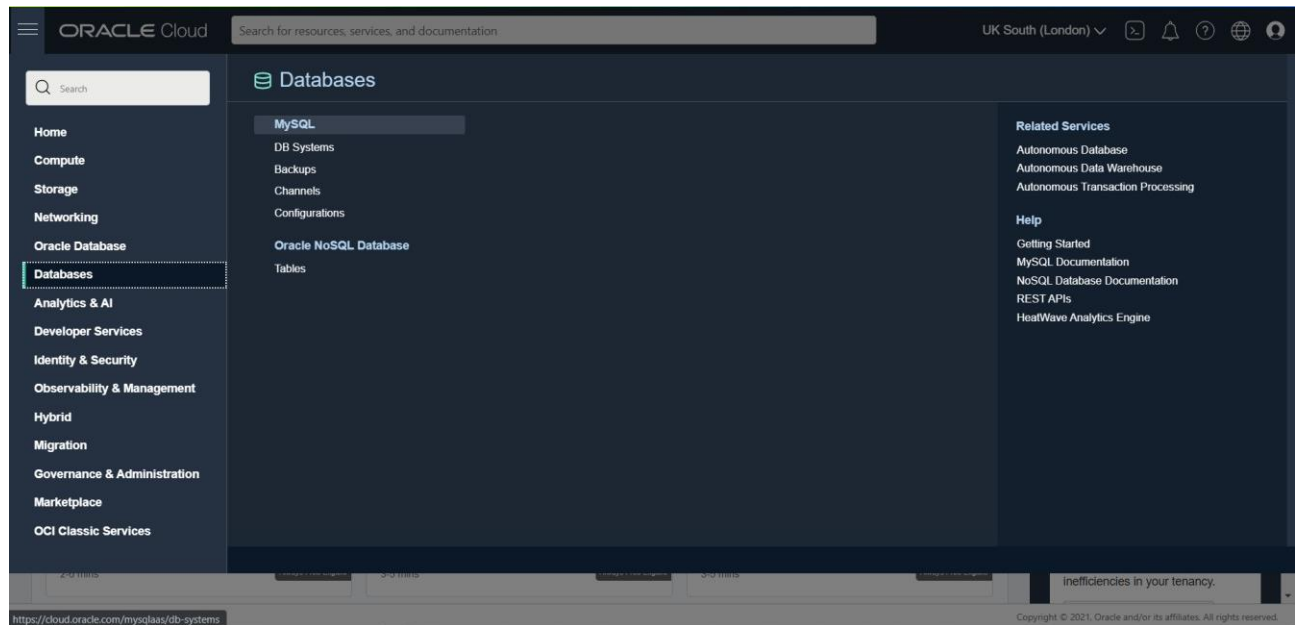


Setelah itu pada jendela ssh silakan dipilih auth. Lalu klik “Browse...” untuk mengunggah file putty key hasil generate dari puttygen.

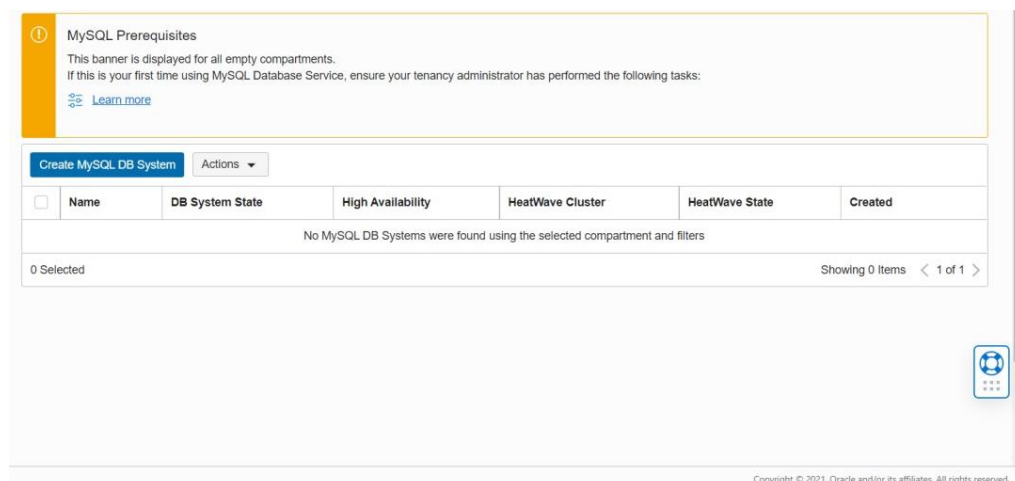
Ujian Bagian Database :

PRAKTIKUM 1 :

1. Memilih menu Databases MySQL pada OCI



2. Menekan Tombol Create MySQL Database



3. Mengisi Compartment dan Jenis Database

Pada praktikum ini kita menggunakan standalone databases, karena kebutuhan database kita masih minimal atau tidak memerlukan spesifikasi yang tinggi.

4. Mengisi Data Databases Administrator

Pada database administrator menggunakan username dan password sesuai dengan keinginan atau kebutuhan anda.

Create Administrator credentials

Username ⓘ

Password

⚠ Administrator password must be between 8 and 32 characters, and contain at least 1 uppercase, 1 lowercase, 1 numeric, and 1 special characters.

Confirm Password

5. Mengkonfigurasi VCN

Konfigurasi VCN pada database disesuaikan dengan tujuan instances yang akan dikoneksikan dengan database.

6. Mengkonfigurasi Availability Domain

Untuk Availability Domain dari database yang akan kita gunakan tidak bisa dipilih pada akun yang gratis, sehingga tidak perlu untuk diubah.

Configure placement

The [availability domain / 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 mBYZ:UK-LONDON-1-AD-1 ✓	AD-2 mBYZ:UK-LONDON-1-AD-2	AD-3 mBYZ:UK-LONDON-1-AD-3
--	--------------------------------------	--------------------------------------

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

7. Mengkonfigurasi Shape dari Database

Pada praktikum ini menggunakan shape yang minimal karena belum memiliki kebutuhan sistem yang memiliki spesifikasi yang tinggi.

Configure hardware

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.

8. Mengkonfigurasi Backup dari Database dan Menekan Tombol Create Database

Untuk backup dari database dapat tidak disetting disesuaikan dengan kebutuhan. Setelah semua pengaturan dianggap telah cukup maka pada tahap akhir adalah menekan tombol create database.

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](#)

Setelah menekan tombol create database maka status database adalah Creating, jadi tungguilah beberapa saat sampai status database Active.

mentation

Japan Central (Osaka) > > ?

Create Bucket

Help

Bucket Name
UTS

Default Storage Tier
☒ Standard
☐ Archive
The default storage tier for a bucket can only be specified during creation. Once set, you cannot change the storage tier in which a bucket resides. [Learn more about storage tiers](#)

☐ **Enable Auto-Tiering**
Automatically move infrequently accessed objects from the Standard tier to less expensive storage. [Learn more](#)

☐ **Enable Object Versioning**
Create an object version when a new object is uploaded, an existing object is overwritten, or when an object is deleted. [Learn more](#)

☐ **Emit Object Events**
Create automation based on object state changes using the [Events Service](#).

☐ **Uncommitted Multipart Uploads Cleanup**
Create a lifecycle rule to automatically delete uncommitted multipart uploads older than 7 days. [Learn more](#)

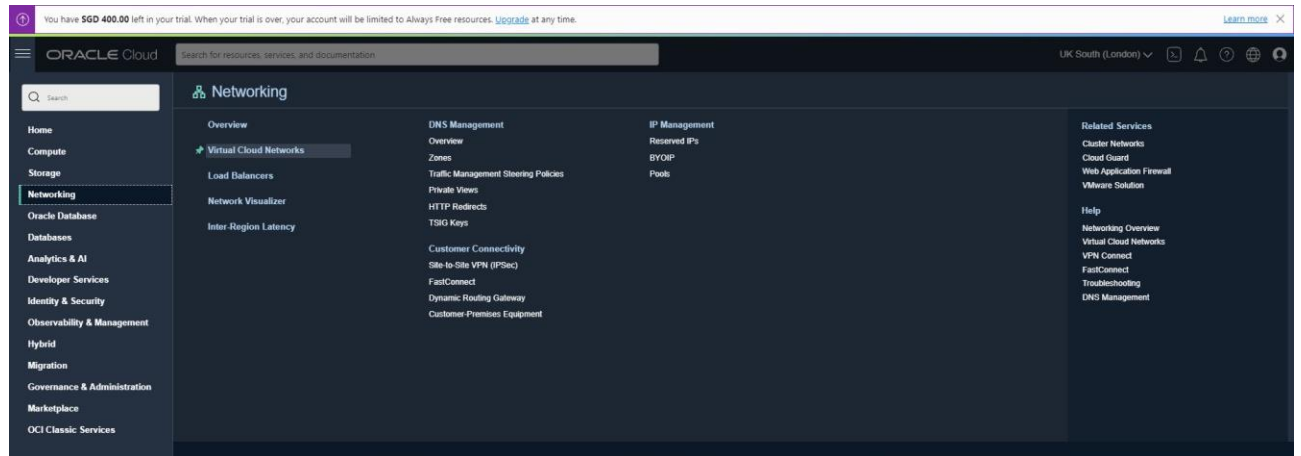
Encryption
☒ **Encrypt using Oracle managed keys**
Leaves all encryption-related matters to Oracle.

Create [Cancel](#)

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PRAKTIKUM 2 :

1. Memilih menu VCN pada Networking
Memilih VCN



Tampilan Setelah Memilih VCN

Search for resources, services, and documentation

UK South (London)

Virtual Cloud Networks in y941720041 (root) Compartment

Virtual Cloud Networks are virtual, private networks that you set up in Oracle data centers. It closely resembles a traditional network, with firewall rules and specific types of communication gateways that you can choose to use.

[Create VCN](#) [Start VCN Wizard](#)

Name	State	IPv4 CIDR Block	IPv6 CIDR Block	Default Route Table	DNS Domain Name	Created
vcn-20210909-1527	Available	10.0.0.0/16	-	Default Route Table for vcn-20210909-1527	vcn09091528.oraclevcn.com	Thu, Sep 9, 2021, 08:28:27 UTC

Showing 1 item < 1 of 1 >

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2. Memilih menu Security List

3. Menambah Rules pada Security List
Klik “Add Ingress Rules”

DB Systems | Oracle Cloud Infra: x Virtual Cloud Networks | Oracle: x

cloud.oracle.com/networking/vcns/ocid1.vcn.oc1.uk-london-1.amaaaaaaxwomaqhcwg5qvr57qvp3pyhn5venlofpz6duwglidsnrmw2eq/security-lists/ocid1.securitylist.oc1.uk-london-1....

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ORACLE Cloud Search for resources, services, and documentation UK South (London)

Networking » Virtual Cloud Networks » vcn-20210909-1527 » Security List Details

Default Security List for vcn-20210909-1527

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

SL
AVAILABLE

Move Resource Add Tags Terminate

Security List Information Tags

OCID: -5to2ua Show Copy
Created: Thu, Sep 9, 2021, 08:28:27 UTC

Compartment: y94172041 (root)

Resources

Ingress Rules (4)
Egress Rules (1)

Ingress Rules

Add Ingress Rules Edit Remove

	Stateless	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Allows	Description
<input type="checkbox"/>	Yes	0.0.0.0/0	TCP	All	80		TCP traffic for ports: 80	Allow HTTP connections
<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	

0 Selected Showing 4 items < 1

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Setelah itu Klik lagi bagian “Add Ingress Rules”

Add Ingress Rules

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

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

Description: Optional

Maximum 255 characters

+ Another Ingress Rule

Add Ingress Rules Cancel

Hasil dari “Add Ingress Rules”

ORACLE Cloud Search for resources, services, and documentation UK South (London)

Networking » Virtual Cloud Networks » vcn-20210909-1527 » Security List Details

Default Security List for vcn-20210909-1527

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: ...5kzua Show Copy Compartment: y941720041 (root)
Created: Thu, Sep 9, 2021, 08:28:27 UTC

Resources

Ingress Rules (6)
Egress Rules (1)

Ingress Rules

Add Ingress Rules Edit Remove

	Stateless	Source	IP Protocol	Source Port Range	Destination Port Range	Type and Code	Allows	Description
<input type="checkbox"/>	Yes	0.0.0.0/0	TCP	All	80		TCP traffic for ports: 80	Allow HTTP connections
<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 w as 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 >

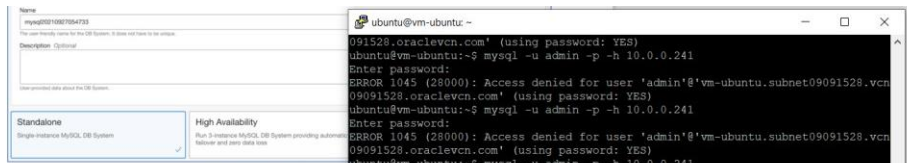
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PRAKTIKUM 3 :

B. Mengakses MySQL

Setelah berhasil masuk ke instances yang dimiliki anda dapat mengakses mysql anda akan tetapi anda harus menginstall mysql client. Jika anda tidak memiliki mysql client maka anda akan mendapat pesan seperti berikut:

```
Last login: Sun Sep 26 23:35:05 2021 from 114.79.23.0
ubuntu@vm-ubuntu: ~
sudo apt install mariadb-client-core-10.3 # version 1:10.3.31-0ubuntu0.20.04.1
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 28 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://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal-updates/main amd64 mysql-client-core-8.0 amd64 8.0.26-0ubuntu0.20.04.3 [4218 kB]
Fetched 4218 kB in 0s (10.5 MB/s)
Selecting previously unselected package mysql-client-core-8.0.
(Reading database ... 70823 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:~$
```



Gambar 5.3 Mengisi Compartment dan Jenis

D. Mengisi Data Databases Administrator

Pada database administrator menggunakan username dan password yang sesuai dengan kebutuhan anda.

Create Administrator credentials

Username: admin

Password: admin

Confirm Password: admin

Gambar 5.4 Mengisi Databases Administrator

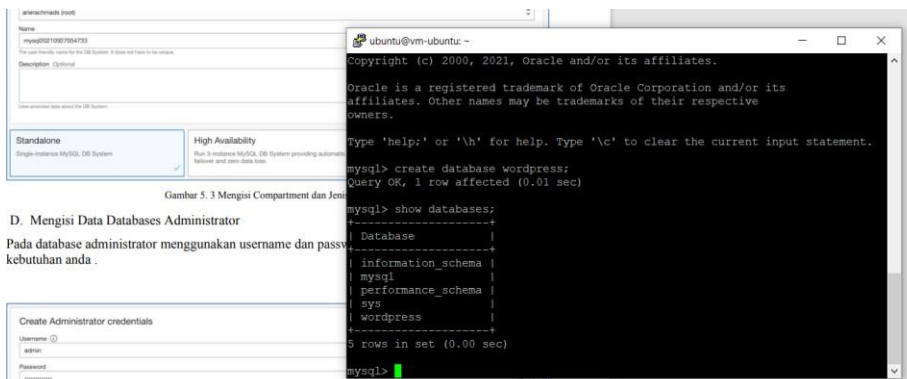
E. Mengkonfigurasi VCN

Konfigurasi VCN pada database disesuaikan dengan tujuan instances yang akan dikoneksikan dengan database.

Configure networking

Virtual Cloud Network: vcn-20210805-0753

Subnet: subnet-20210805-0753



Gambar 5.3 Mengisi Compartment dan Jenis

D. Mengisi Data Databases Administrator

Pada database administrator menggunakan username dan password yang sesuai dengan kebutuhan anda.

Create Administrator credentials

Username: admin

Password: admin

Confirm Password: admin

Gambar 5.4 Mengisi Databases Administrator

E. Mengkonfigurasi VCN

Konfigurasi VCN pada database disesuaikan dengan tujuan instances yang akan dikoneksikan dengan database.

Configure networking

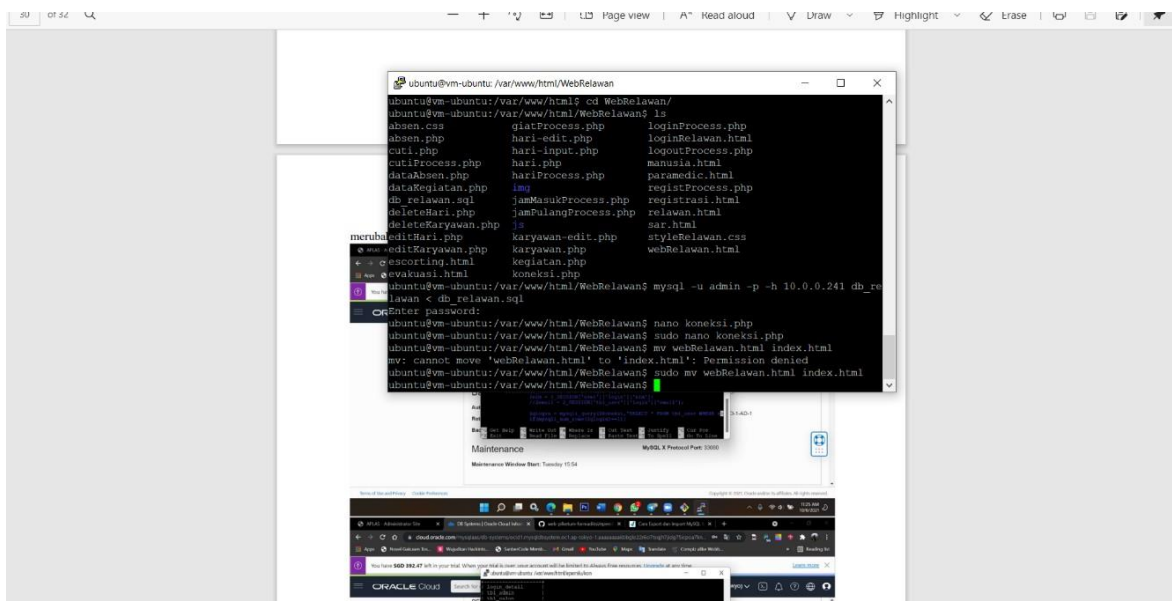
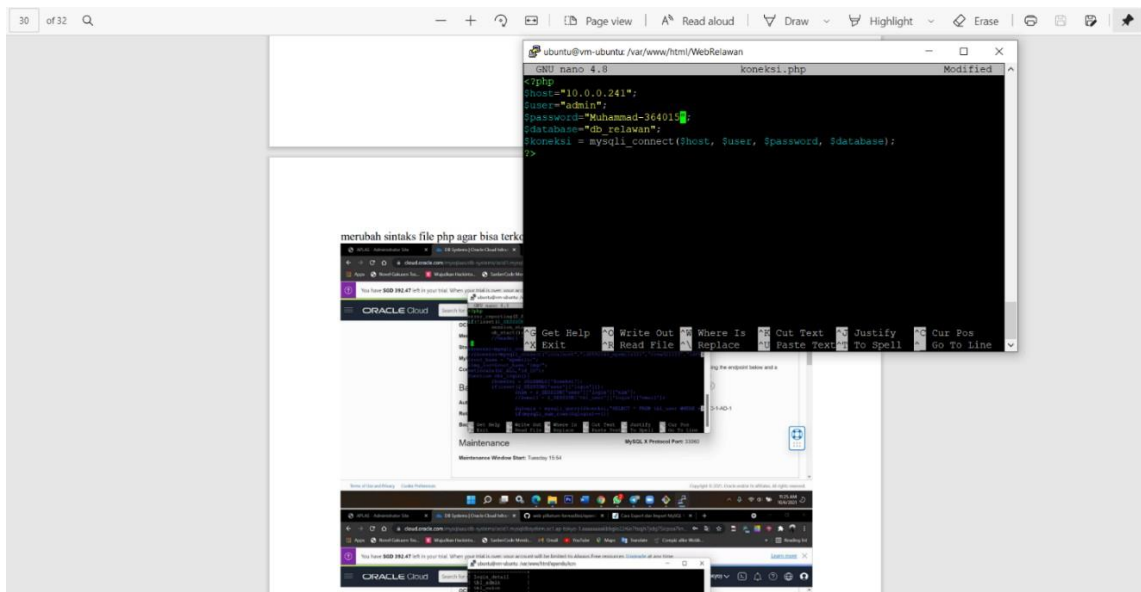
Virtual Cloud Network: vcn-20210805-0753

Subnet: subnet-20210805-0753


```
ubuntu@vm-ubuntu: ~  
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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.  
mysql> create database wordpress;  
Query OK, 1 row affected (0.01 sec)  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
| wordpress |  
+-----+  
5 rows in set (0.00 sec)  
mysql>
```

```
ubuntu@vm-ubuntu: ~  
owners.  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
mysql> create database db_relawan;  
Query OK, 1 row affected (0.00 sec)  
mysql> show databases;  
+-----+  
| Database |  
+-----+  
| db_relawan |  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
| wordpress |  
+-----+  
6 rows in set (0.00 sec)  
mysql> grant all privileges on db_relawan.* to admin;  
Query OK, 0 rows affected (0.00 sec)  
mysql>
```

5.20 Contoh Hasil Show Databases



OutPut :

cloud.oracle.com/object-storage/buckets/lnxjs1tz10/bucket-20211029-0302/objects?region=uk-london-1

You have SGD 317.75 left in your trial. When your trial is over, your account will be limited to Always Free resources. [Upgrade](#) at any time. [Learn more](#)

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Approximate Size: 2.99 KiB
Uncommitted Multipart Uploads Count: 0 uploads
Uncommitted Multipart Uploads Approximate Size: 0 bytes

Resources

Objects

Upload More Actions

Search by prefix

	Name	Last Modified	Size	Storage Tier
<input type="checkbox"/>	index.html	Thu, Oct 28, 2021, 20:13:41 UTC	728 bytes	Standard
<input type="checkbox"/>	webRelawanwebRelawan.html	Thu, Oct 28, 2021, 20:32:54 UTC	2.28 KiB	

View Object Details

Download

Copy

Update Storage Tier

Create Pre-Authenticated Request

Re-encrypt

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Type here to search

objectstorage.uk-london-1.oraclecloud.com/n/lnxjs1tz10/b/bucket-20211029-0302/o/webRelawanwebRelawan.html

KNDJH RESCUE 020 MALANG

Cepat Tangkas Trengginas

Gg. V No.36 RT.03/RW.10, Kotalama, Kec. KedungKandang, Kota Malang

[Login](#) [Register](#) [Home](#)

[Cluster](#)

[Paramedic](#) [Evacuation](#) [Escorting](#)

- [Apa itu SAR?](#)
- [Apa itu Relawan?](#)
- [Apa itu Humanity?](#)

Rescue020

Rescue020 adalah lembaga yang bertugas melaksanakan tugas di bidang pencarian dan pertolongan (Search And Rescue/SAR). Rescue020 mempunyai tugas pokok melaksanakan pembinaan, pengkoordinasian, dan pengendalian potensi SAR dalam kegiatan SAR terhadap orang dan material yang hilang atau dikhawatirkan hilang atau menghadapi bahaya dalam pelayaran dan/atau penerbangan, serta memberikan bantuan dalam bencana dan musibah lainnya sesuai dengan peraturan SAR nasional dan internasional.

Secara jelas tugas dan fungsi SAR adalah penanganan musibah pelayaran dan/atau penerbangan, dan/atau bencana dan/atau musibah lainnya dalam upaya pencarian dan pertolongan saat terjadinya musibah. Penanganan terhadap musibah yang dimaksud meliputi 2 hal pokok yaitu pencarian (search) dan pertolongan (rescue). Dalam melaksanakan tugas penanganan musibah pelayaran dan penerbangan harus sejalan dengan IMO dan ICAO.

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Type here to search

25°C Berawan 3:33 29/10/2021