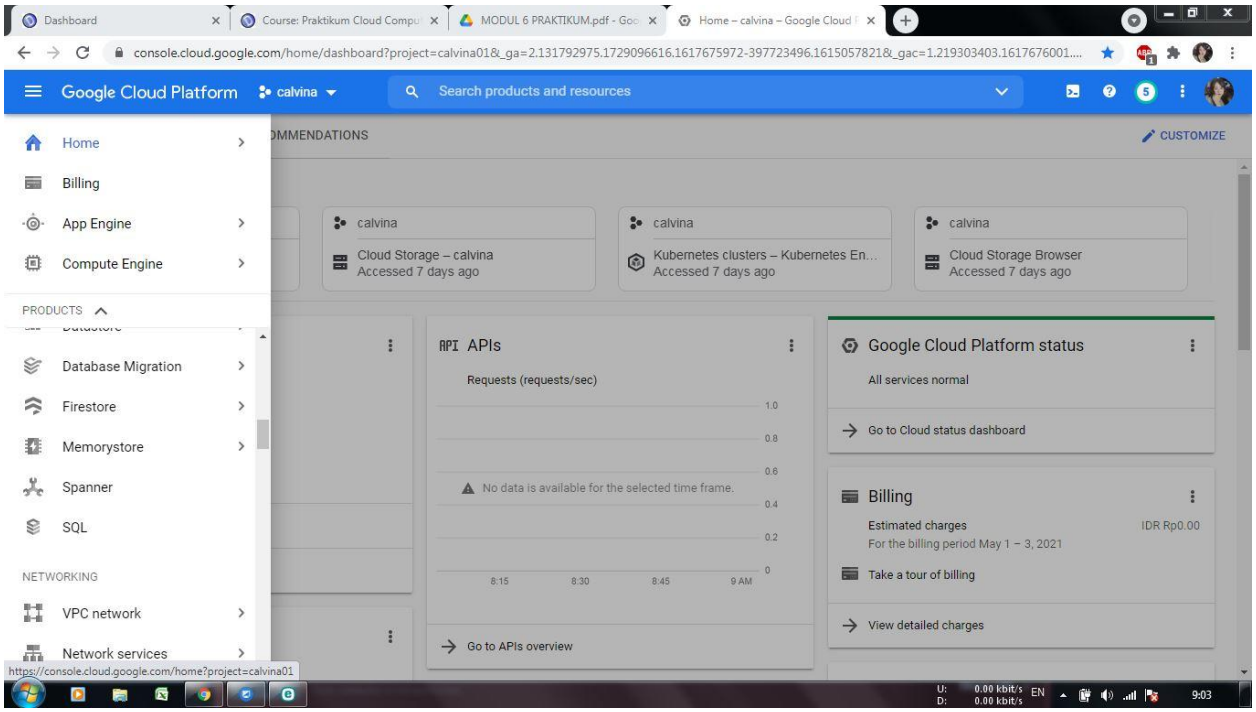
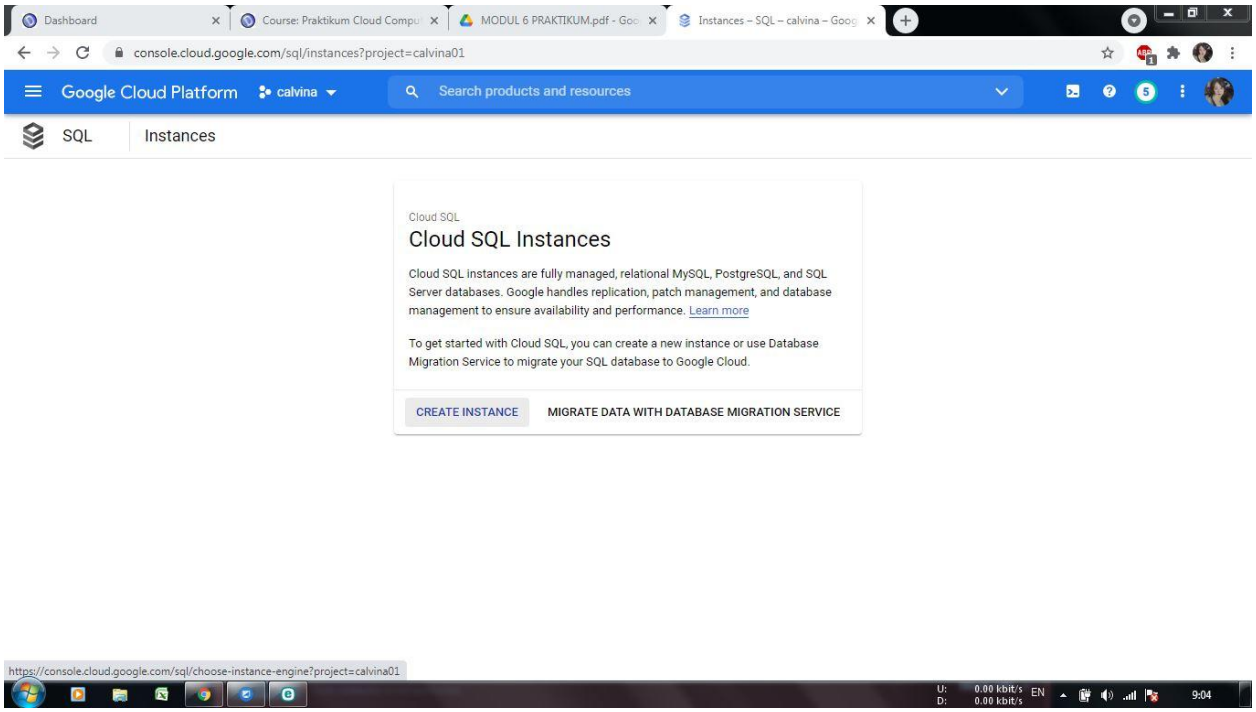
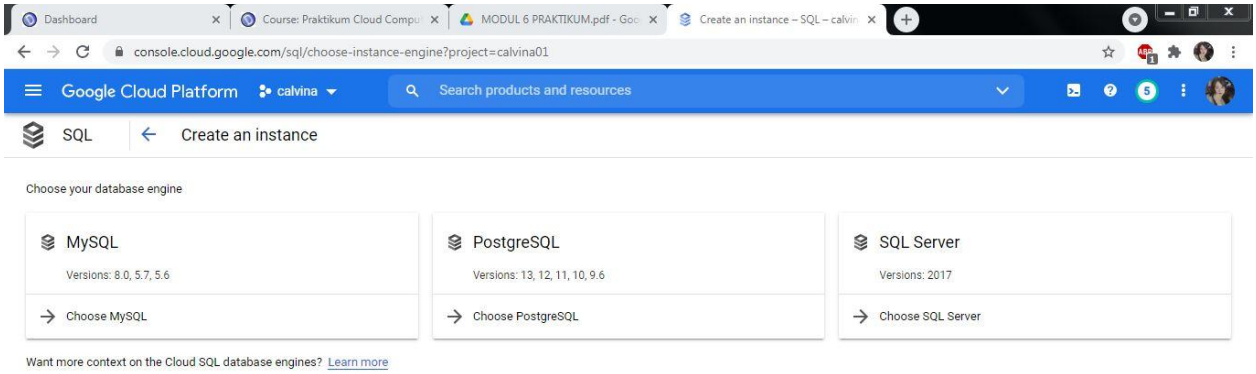
LATIHAN PRAKTIKUM CLOUD COMPUTING PERTEMUAN KE-8

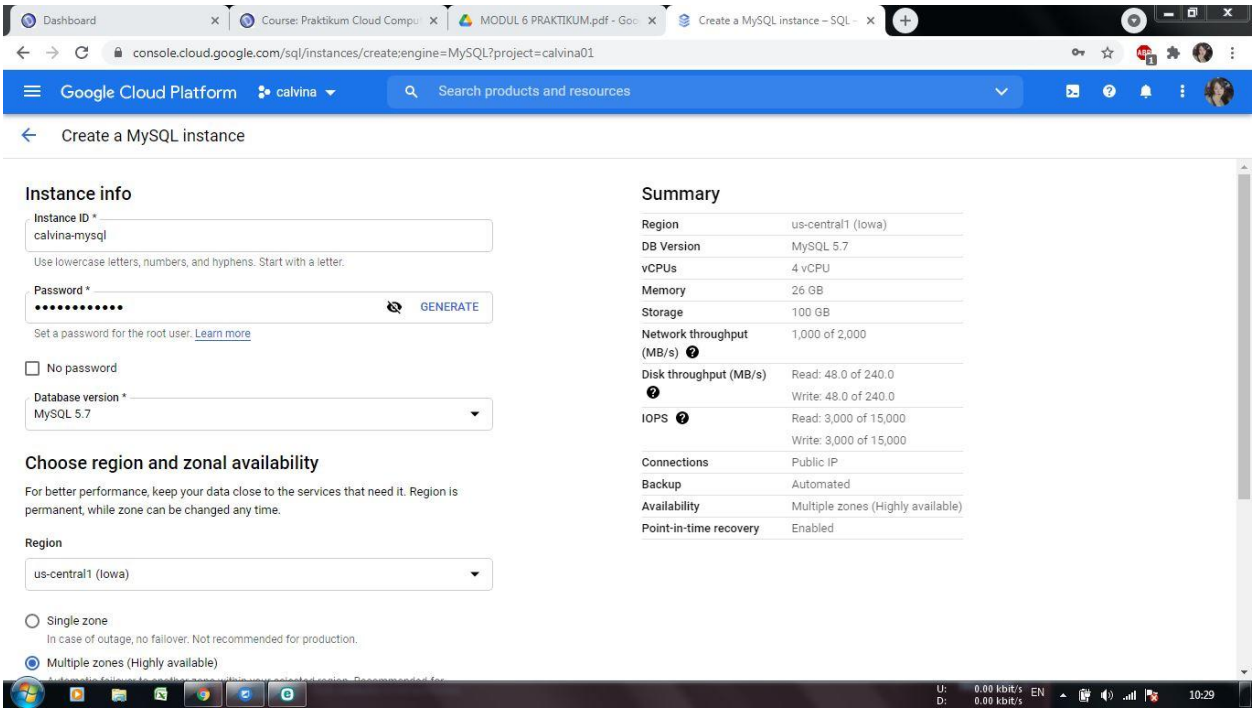
LATIHAN 1



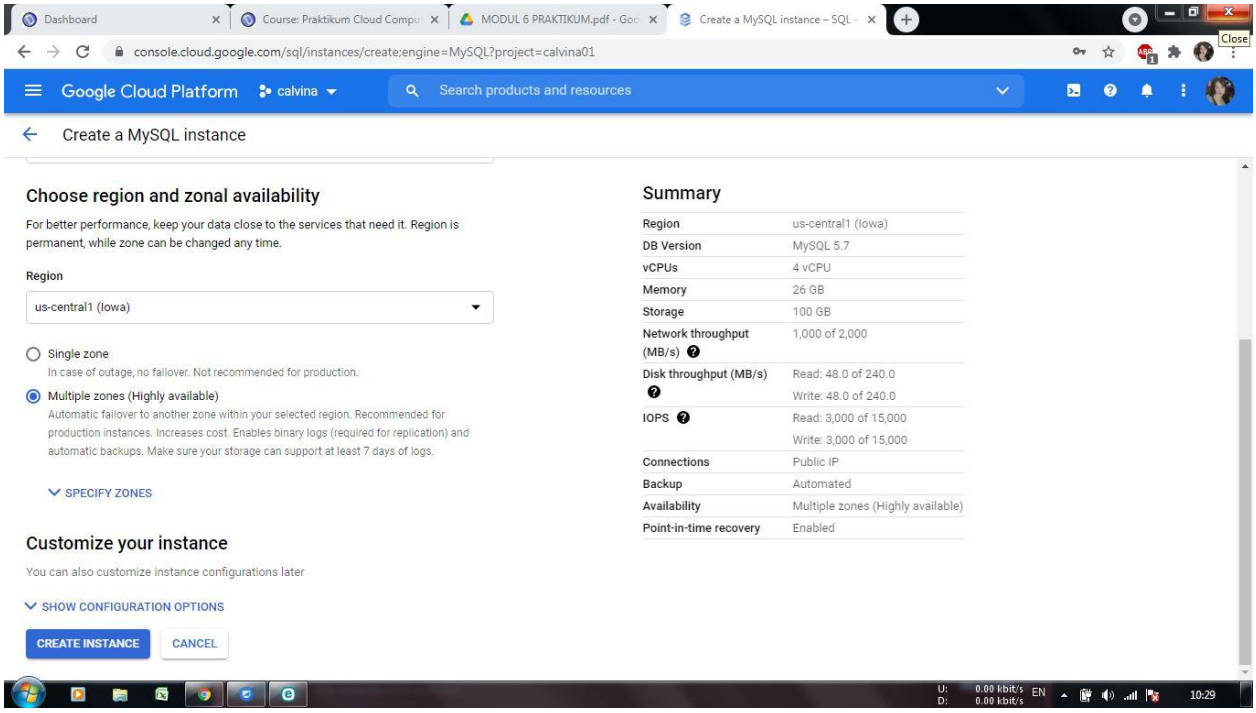


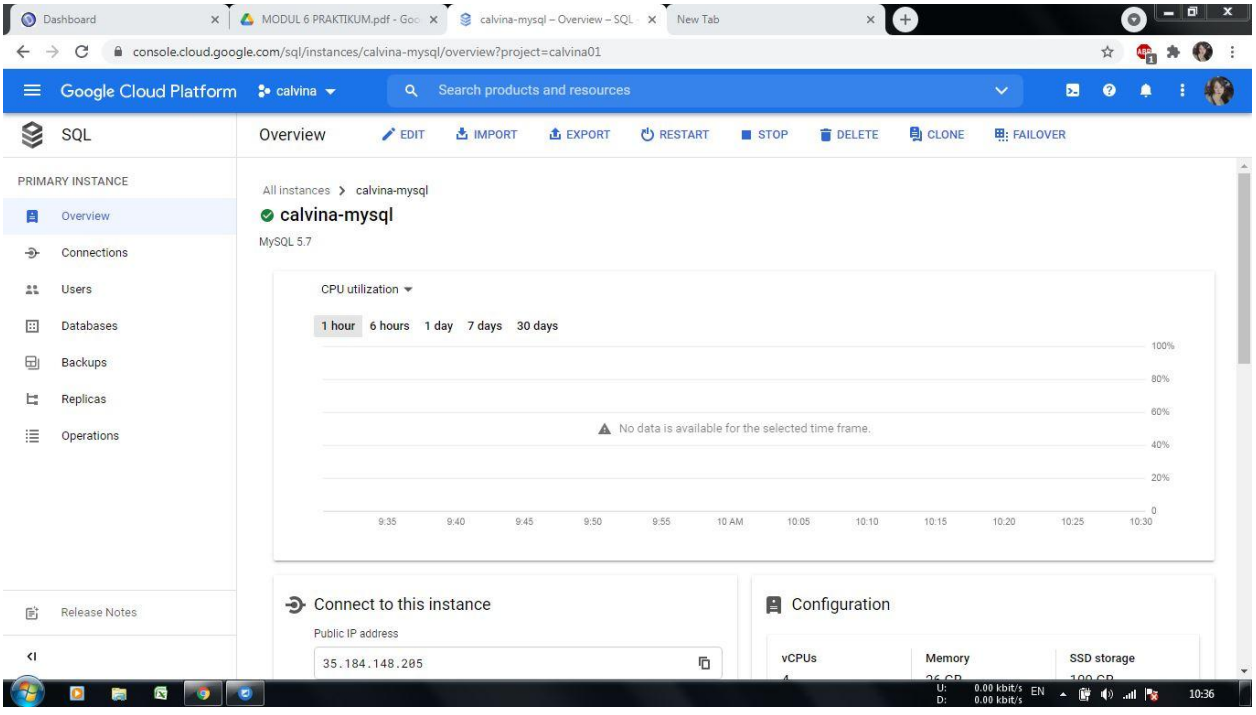

Dashboard
Course: Praktikum Cloud Compu
MODUL 6 PRAKTIKUM.pdf - Goo
Create an instance – SQL – calvin
console.cloud.google.com/sql/choose-instance-engine?project=calvina01
Google Cloud Platform
calvina
Search products and resources
SQL
Create an instance
Choose your database engine
MySQL
Versions: 8.0, 5.7, 5.6
Choose MySQL
PostgreSQL
Versions: 13, 12, 11, 10, 9.6
Choose PostgreSQL
SQL Server
Versions: 2017
Choose SQL Server
Want more context on the Cloud SQL database engines? Learn more

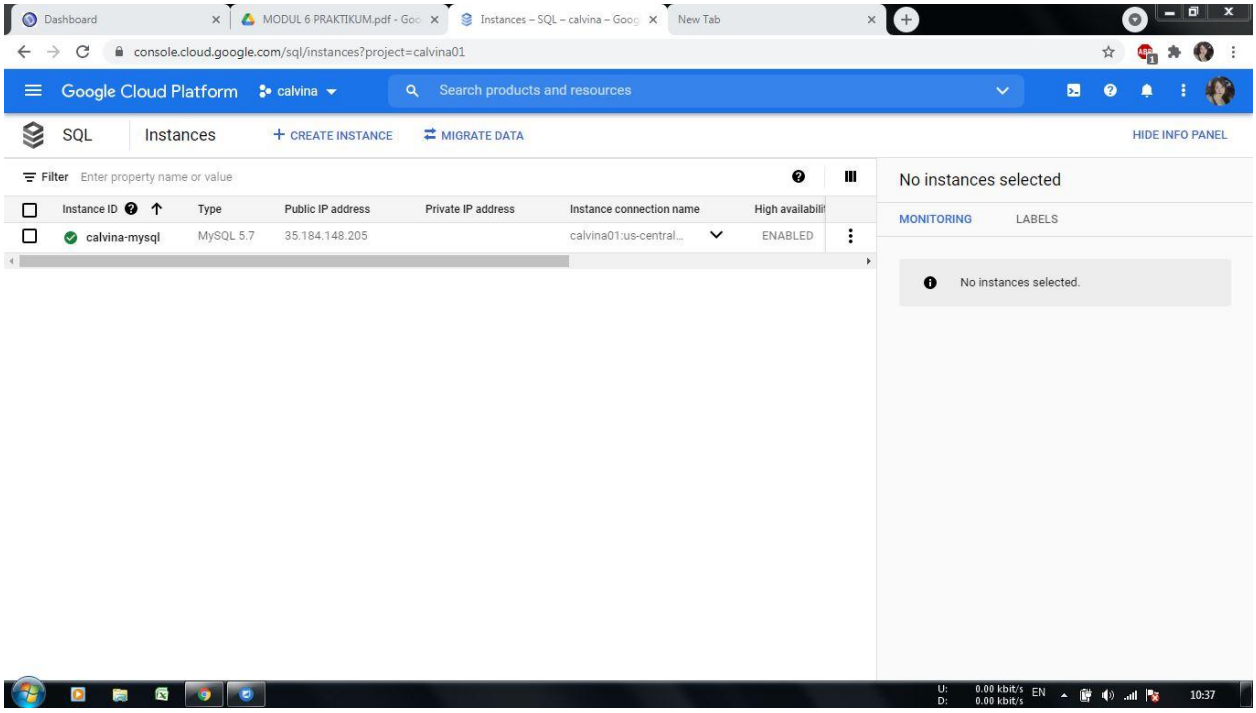
9:05

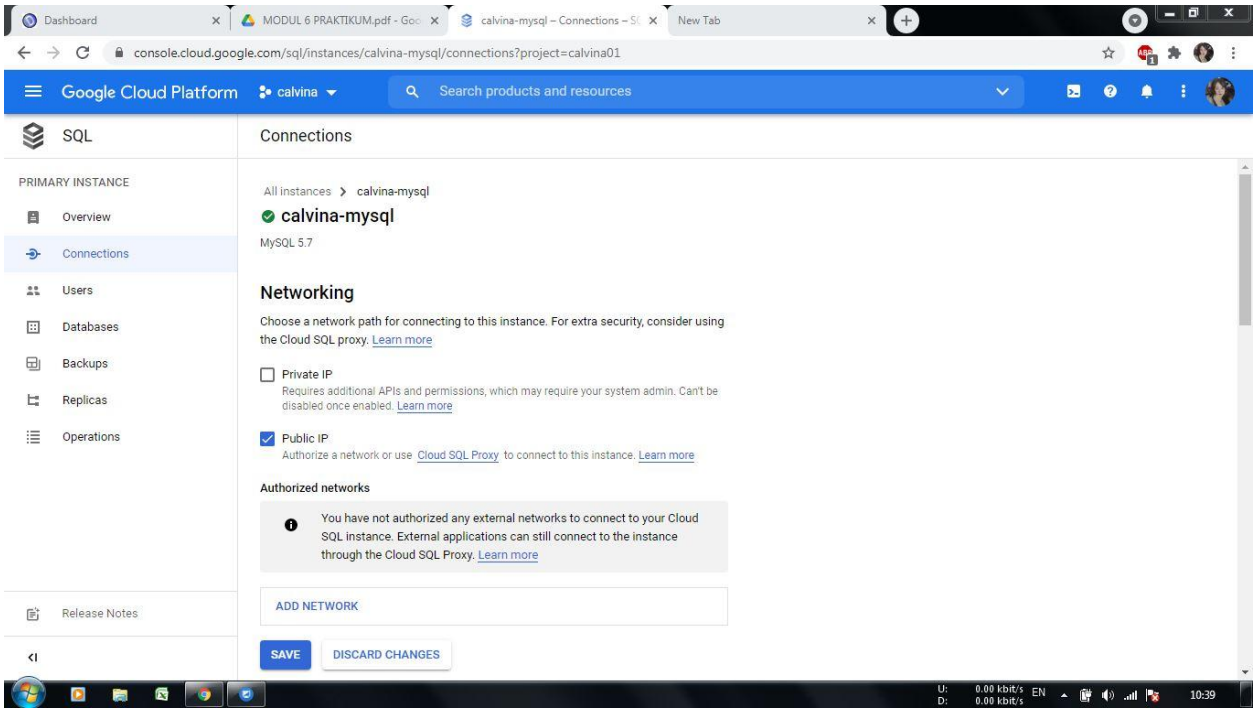

Dashboard
Course: Praktikum Cloud Compu
MODUL 6 PRAKTIKUM.pdf - Goo
Create a MySQL instance – SQL
console.cloud.google.com/sql/instances/create;engine=MySQL?project=calvina01
Google Cloud Platform
calvina
Search products and resources
Create a MySQL instance
Instance info
Instance ID *
calvina-mysql
Use lowercase letters, numbers, and hyphens. Start with a letter.
Password *
GENERATE
Set a password for the root user. Learn more
No password
Database version *
MySQL 5.7
Choose region and zonal availability
For better performance, keep your data close to the services that need it. Region is permanent, while zone can be changed any time.
Region
us-central1 (Iowa)
Single zone
In case of outage, no failover. Not recommended for production.
Multiple zones (Highly available)
Summary
Region us-central1 (Iowa)
DB Version MySQL 5.7
vCPUs 4 vCPU
Memory 26 GB
Storage 100 GB
Network throughput (MB/s) 1,000 of 2,000
Disk throughput (MB/s) Read: 48.0 of 240.0
Write: 48.0 of 240.0
IOPS Read: 3,000 of 15,000
Write: 3,000 of 15,000
Connections Public IP
Backup Automated
Availability Multiple zones (Highly available)
Point-in-time recovery Enabled

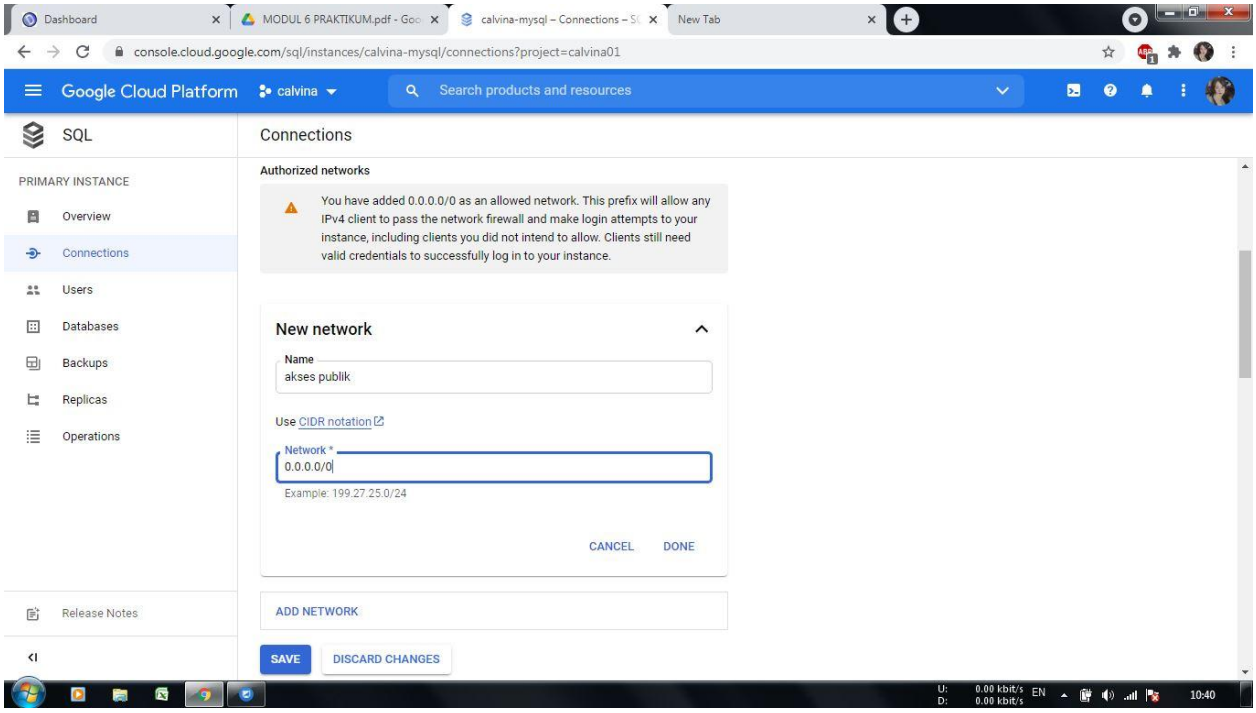
10:29

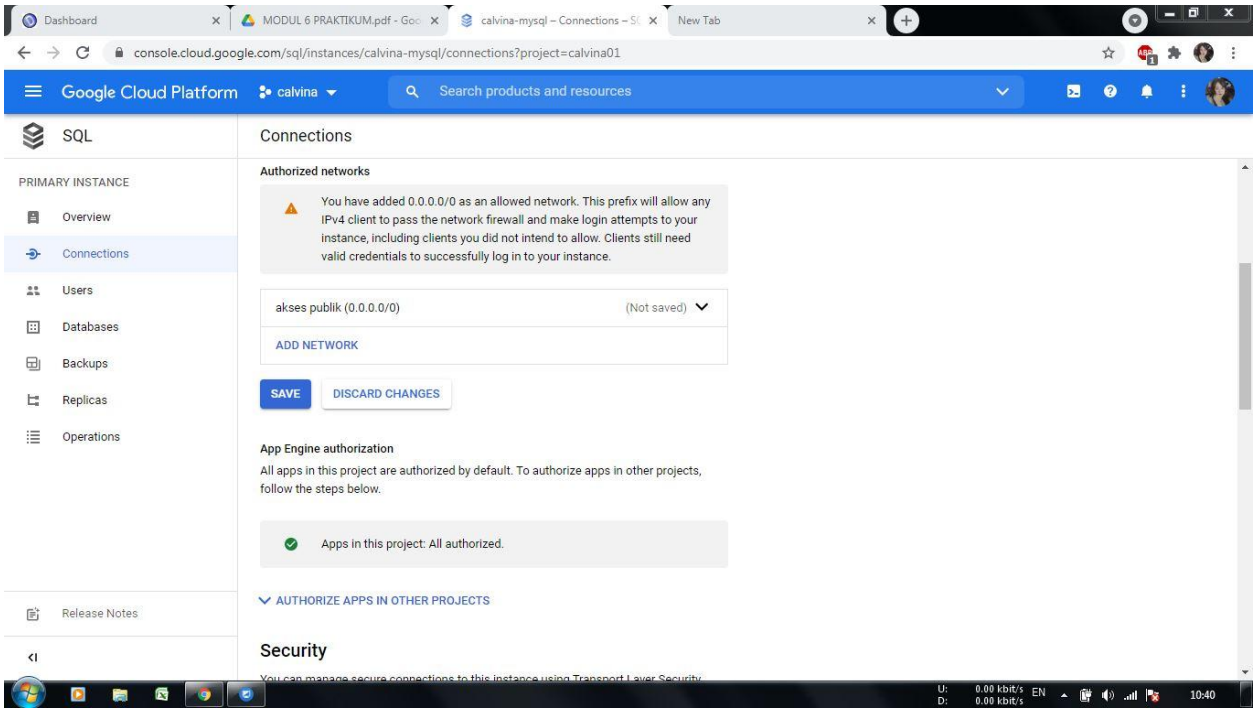

Dashboard
Course: Praktikum Cloud Compu
MODUL 6 PRAKTIKUM.pdf - Goo
Create a MySQL instance – SQL
console.cloud.google.com/sql/instances/create;engine=MySQL?project=calvina01
Google Cloud Platform
calvina
Search products and resources
Create a MySQL instance
Choose region and zonal availability
For better performance, keep your data close to the services that need it. Region is permanent, while zone can be changed any time.
Region
us-central1 (Iowa)
Single zone
In case of outage, no failover. Not recommended for production.
Multiple zones (Highly available)
Automatic failover to another zone within your selected region. Recommended for production instances. Increases cost. Enables binary logs (required for replication) and automatic backups. Make sure your storage can support at least 7 days of logs.
SPECIFY ZONES
Customize your instance
You can also customize instance configurations later
SHOW CONFIGURATION OPTIONS
CREATE INSTANCE
CANCEL
Summary
Region us-central1 (Iowa)
DB Version MySQL 5.7
vCPUs 4 vCPU
Memory 26 GB
Storage 100 GB
Network throughput (MB/s) 1,000 of 2,000
Disk throughput (MB/s) Read: 48.0 of 240.0 Write: 48.0 of 240.0
IOPS Read: 3,000 of 15,000 Write: 3,000 of 15,000
Connections Public IP
Backup Automated
Availability Multiple zones (Highly available)
Point-in-time recovery Enabled
10:29

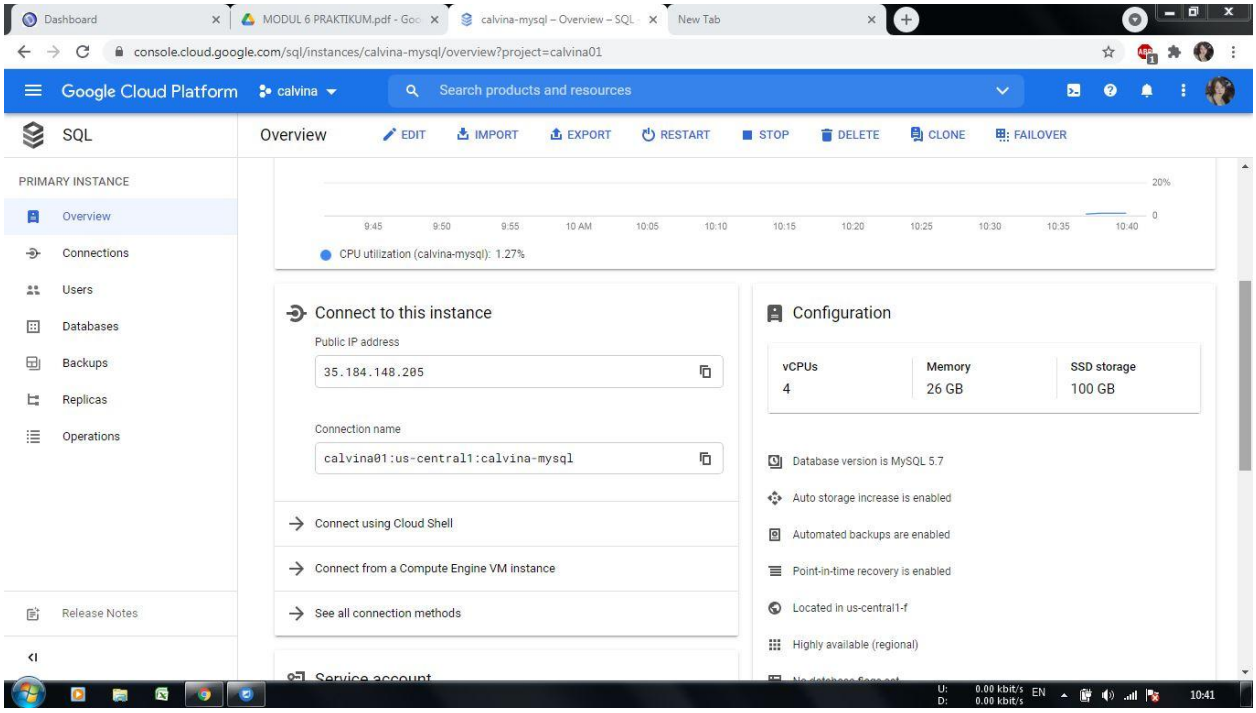

Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
calvina-mysql – Overview – SQL
New Tab
console.cloud.google.com/sql/instances/calvina-mysql/overview?project=calvina01
Google Cloud Platform
calvina
Search products and resources
SQL
Overview
EDIT
IMPORT
EXPORT
RESTART
STOP
DELETE
CLONE
FAILOVER
PRIMARY INSTANCE
Overview
Connections
Users
Databases
Backups
Replicas
Operations
Release Notes
All instances > calvina-mysql
calvina-mysql
MySQL 5.7
CPU utilization
1 hour 6 hours 1 day 7 days 30 days
No data is available for the selected time frame.
100%
80%
60%
40%
20%
0
9:35 9:40 9:45 9:50 9:55 10 AM 10:05 10:10 10:15 10:20 10:25 10:30
Connect to this instance
Public IP address
35.184.148.205
Configuration
vCPUs
Memory
SSD storage
10:36

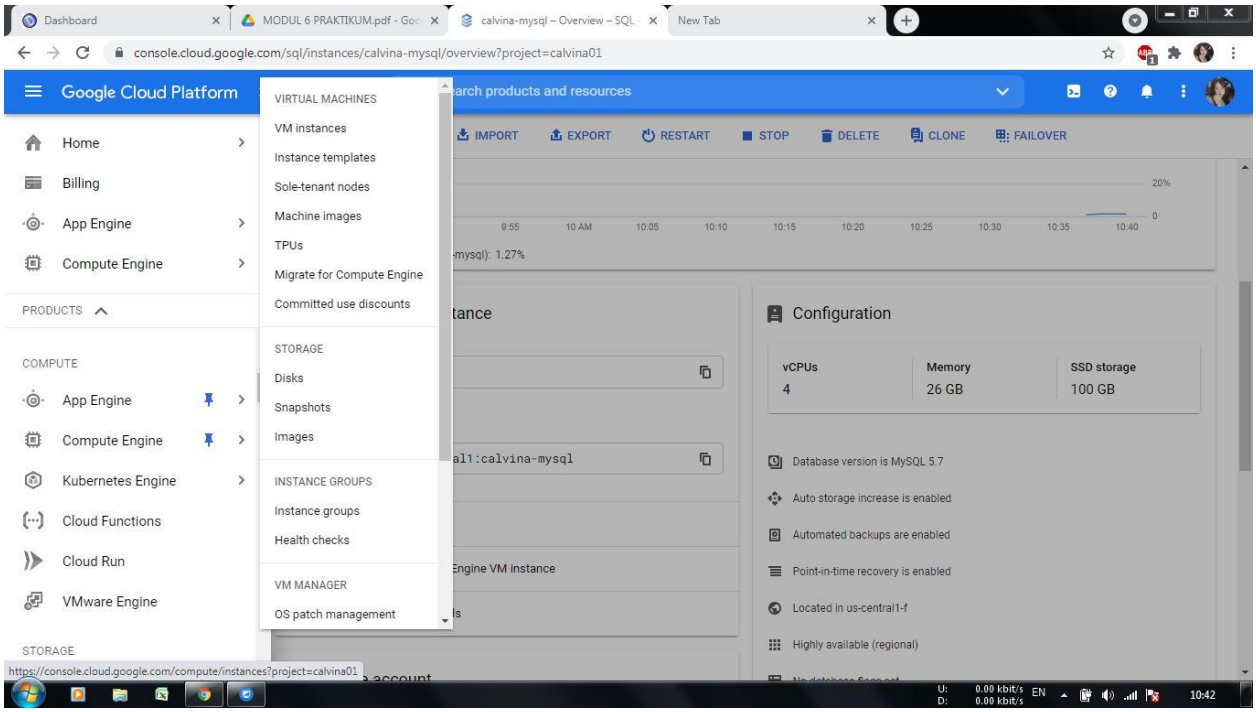

Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
Instances – SQL – calvina – Goog
New Tab
console.cloud.google.com/sql/instances?project=calvina01
Google Cloud Platform
calvina
Search products and resources
SQL
Instances
+ CREATE INSTANCE
MIGRATE DATA
HIDE INFO PANEL
Filter
Enter property name or value
Instance ID
Type
Public IP address
Private IP address
Instance connection name
High availabili
calvina-mysql
MySQL 5.7
35.184.148.205
calvina01:us-central...
ENABLED
No instances selected
MONITORING
LABELS
No instances selected.
U:
D:
0.00 kbit/s
0.00 kbit/s
EN
10:37

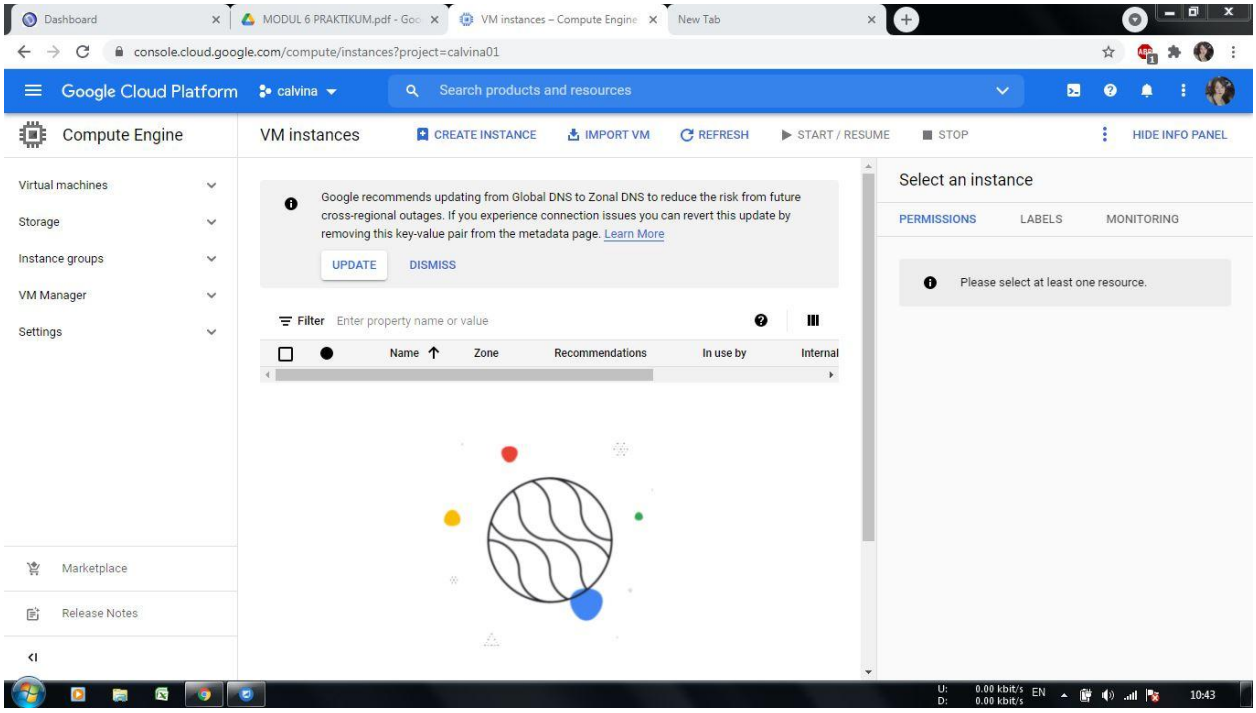

Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
calvina-mysql – Connections – S
New Tab
console.cloud.google.com/sql/instances/calvina-mysql/connections?project=calvina01
Google Cloud Platform
calvina
Search products and resources
SQL
Connections
PRIMARY INSTANCE
Overview
Connections
Users
Databases
Backups
Replicas
Operations
Release Notes
All instances > calvina-mysql
calvina-mysql
MySQL 5.7
Networking
Choose a network path for connecting to this instance. For extra security, consider using the Cloud SQL proxy. Learn more
Private IP
Requires additional APIs and permissions, which may require your system admin. Can't be disabled once enabled. Learn more
Public IP
Authorize a network or use Cloud SQL Proxy to connect to this instance. Learn more
Authorized networks
You have not authorized any external networks to connect to your Cloud SQL instance. External applications can still connect to the instance through the Cloud SQL Proxy. Learn more
ADD NETWORK
SAVE
DISCARD CHANGES
U:
D:
0.00 kbit/s
0.00 kbit/s
EN
10:39

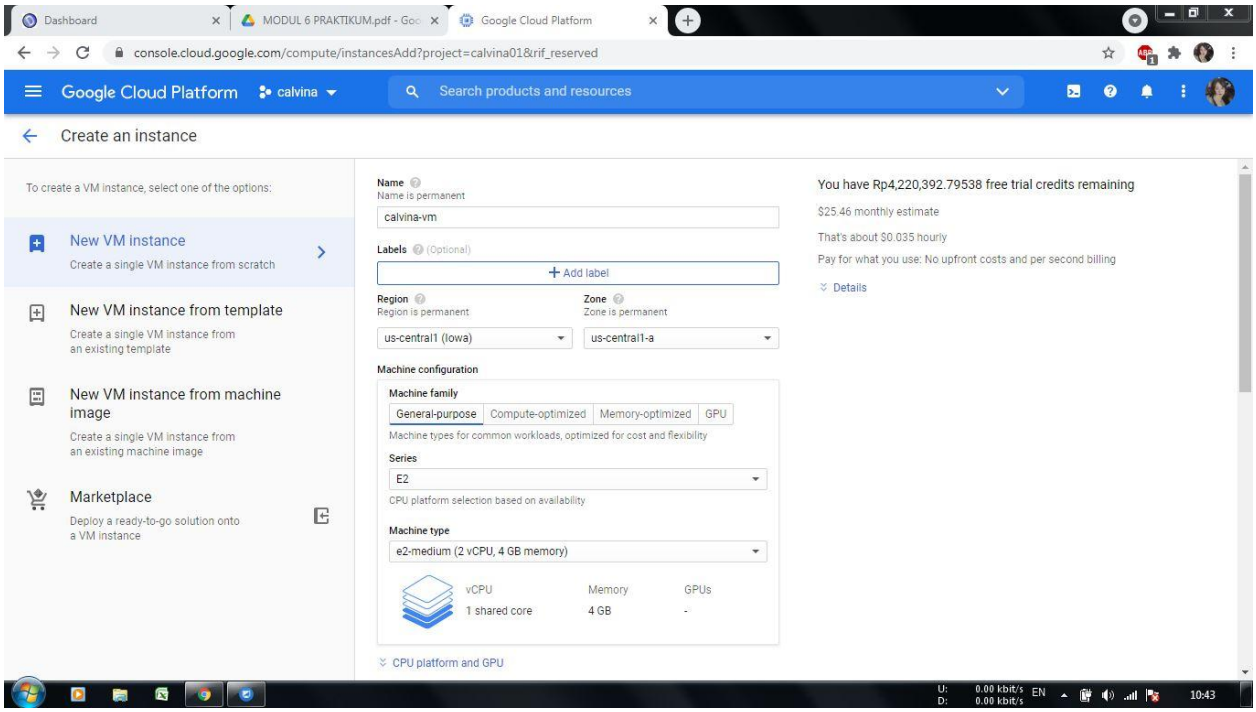

Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
calvina-mysql – Connections – S
New Tab
console.cloud.google.com/sql/instances/calvina-mysql/connections?project=calvina01
Google Cloud Platform
calvina
Search products and resources
SQL
Connections
PRIMARY INSTANCE
Overview
Connections
Users
Databases
Backups
Replicas
Operations
Release Notes
Authorized networks
You have added 0.0.0.0/0 as an allowed network. This prefix will allow any IPv4 client to pass the network firewall and make login attempts to your instance, including clients you did not intend to allow. Clients still need valid credentials to successfully log in to your instance.
New network
Name
akses publik
Use CIDR notation
Network *
0.0.0.0/0
Example: 199.27.25.0/24
CANCEL
DONE
ADD NETWORK
SAVE
DISCARD CHANGES
10:40

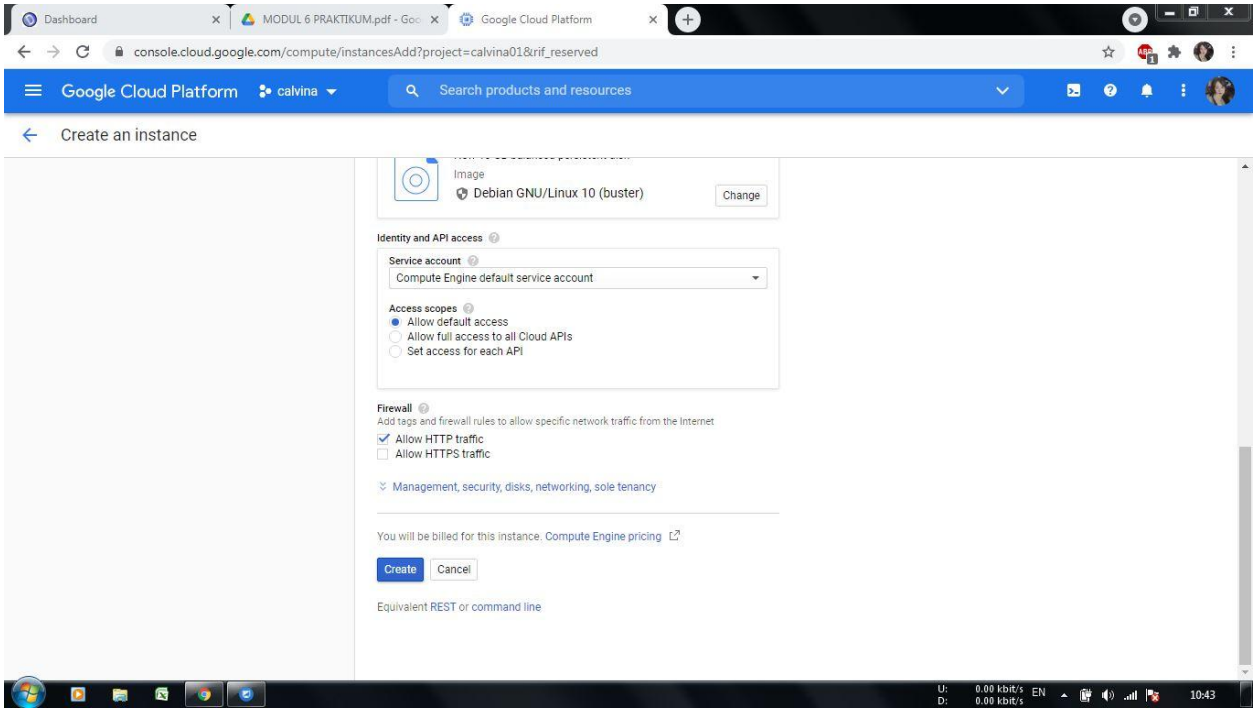

Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
calvina-mysql – Connections – S
New Tab
console.cloud.google.com/sql/instances/calvina-mysql/connections?project=calvina01
Google Cloud Platform
calvina
Search products and resources
SQL
Connections
PRIMARY INSTANCE
Overview
Connections
Users
Databases
Backups
Replicas
Operations
Release Notes
Authorized networks
You have added 0.0.0.0/0 as an allowed network. This prefix will allow any IPv4 client to pass the network firewall and make login attempts to your instance, including clients you did not intend to allow. Clients still need valid credentials to successfully log in to your instance.
akses publik (0.0.0.0/0)
(Not saved)
ADD NETWORK
SAVE
DISCARD CHANGES
App Engine authorization
All apps in this project are authorized by default. To authorize apps in other projects, follow the steps below.
Apps in this project: All authorized.
AUTHORIZE APPS IN OTHER PROJECTS
Security
10:40

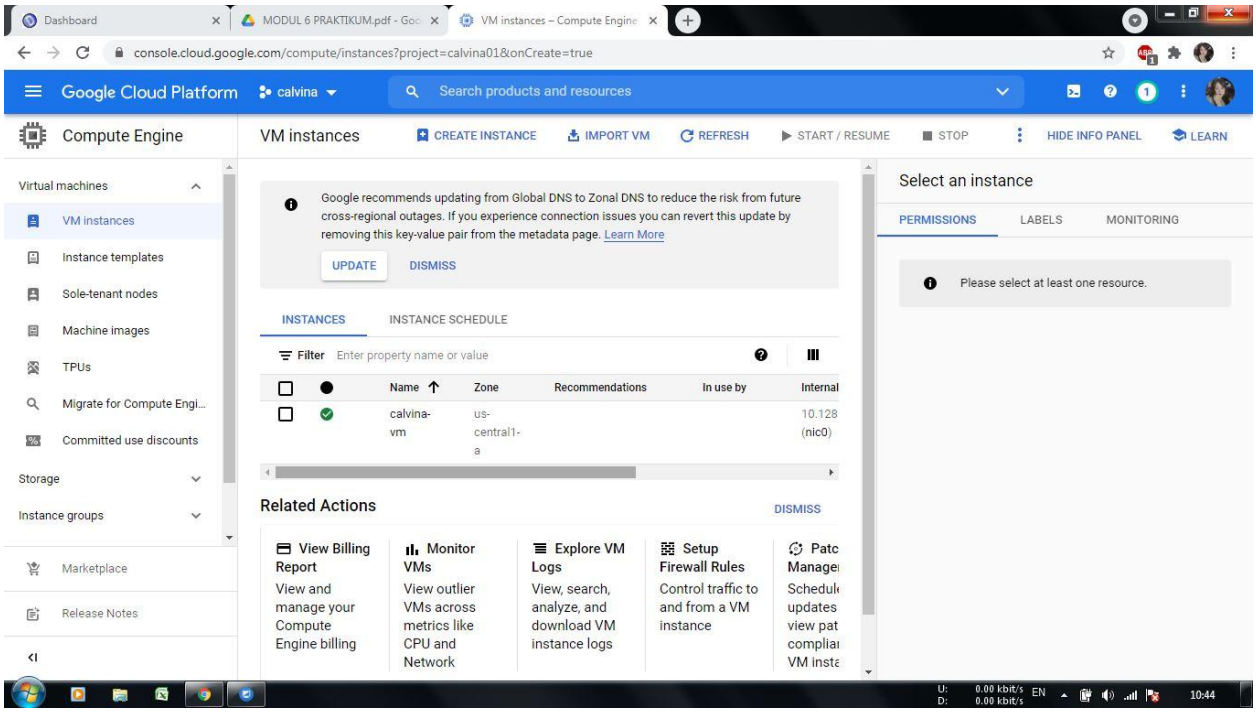

Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
calvina-mysql – Overview – SQL
New Tab
console.cloud.google.com/sql/instances/calvina-mysql/overview?project=calvina01
Google Cloud Platform
calvina
Search products and resources
SQL
Overview
EDIT
IMPORT
EXPORT
RESTART
STOP
DELETE
CLONE
FAILOVER
PRIMARY INSTANCE
Overview
Connections
Users
Databases
Backups
Replicas
Operations
Release Notes
20%
0
9:45
9:50
9:55
10 AM
10:05
10:10
10:15
10:20
10:25
10:30
10:35
10:40
CPU utilization (calvina-mysql): 1.27%
Connect to this instance
Public IP address
35.184.148.205
Connection name
calvina01:us-central1:calvina-mysql
Connect using Cloud Shell
Connect from a Compute Engine VM instance
See all connection methods
Service account
Configuration
vCPUs
4
Memory
26 GB
SSD storage
100 GB
Database version is MySQL 5.7
Auto storage increase is enabled
Automated backups are enabled
Point-in-time recovery is enabled
Located in us-central1-f
Highly available (regional)
10:41

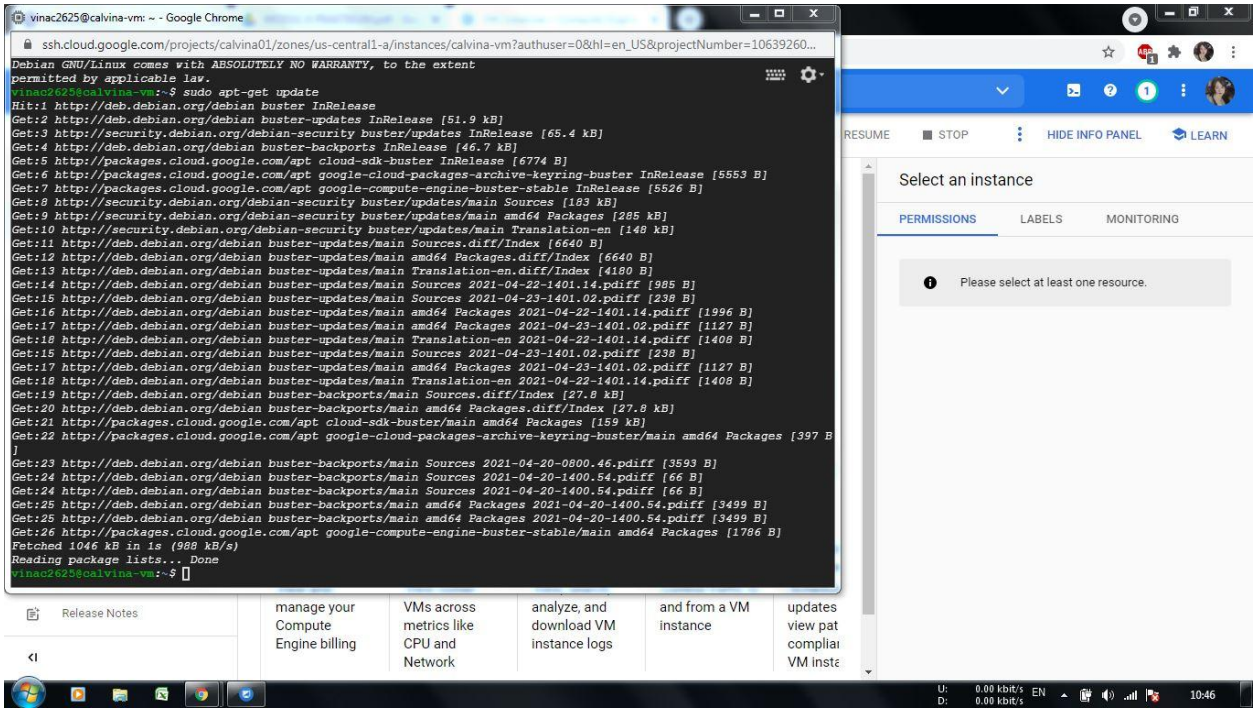

Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
calvina-mysql – Overview – SQL
New Tab
console.cloud.google.com/sql/instances/calvina-mysql/overview?project=calvina01
Google Cloud Platform
Home
Billing
App Engine
Compute Engine
PRODUCTS
COMPUTE
App Engine
Compute Engine
Kubernetes Engine
Cloud Functions
Cloud Run
VMware Engine
STORAGE
VIRTUAL MACHINES
VM instances
Instance templates
Sole-tenant nodes
Machine images
TPUs
Migrate for Compute Engine
Committed use discounts
STORAGE
Disks
Snapshots
Images
INSTANCE GROUPS
Instance groups
Health checks
VM MANAGER
OS patch management
IMPORT
EXPORT
RESTART
STOP
DELETE
CLONE
FAILOVER
Configuration
vCPUs
4
Memory
26 GB
SSD storage
100 GB
Database version is MySQL 5.7
Auto storage increase is enabled
Automated backups are enabled
Point-in-time recovery is enabled
Located in us-central1-f
Highly available (regional)
https://console.cloud.google.com/compute/instances?project=calvina01
10:42


Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
VM instances – Compute Engine
New Tab
console.cloud.google.com/compute/instances?project=calvina01
Google Cloud Platform
calvina
Search products and resources
Compute Engine
VM instances
CREATE INSTANCE
IMPORT VM
REFRESH
START / RESUME
STOP
HIDE INFO PANEL
Virtual machines
Storage
Instance groups
VM Manager
Settings
Google recommends updating from Global DNS to Zonal DNS to reduce the risk from future cross-regional outages. If you experience connection issues you can revert this update by removing this key-value pair from the metadata page. Learn More
UPDATE
DISMISS
Filter
Enter property name or value
Name
Zone
Recommendations
In use by
Internal
Select an instance
PERMISSIONS
LABELS
MONITORING
Please select at least one resource.
Marketplace
Release Notes
10:43


Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
Google Cloud Platform
console.cloud.google.com/compute/instancesAdd?project=calvina01&rif_reserved
Google Cloud Platform
calvina
Search products and resources
Create an instance
To create a VM instance, select one of the options:
New VM instance
Create a single VM instance from scratch
New VM instance from template
Create a single VM instance from an existing template
New VM instance from machine image
Create a single VM instance from an existing machine image
Marketplace
Deploy a ready-to-go solution onto a VM instance
Name
Name is permanent
calvina-vm
Labels (Optional)
+ Add label
Region
Region is permanent
us-central1 (Iowa)
Zone
Zone is permanent
us-central1-a
Machine configuration
Machine family
General-purpose
Compute-optimized
Memory-optimized
GPU
Machine types for common workloads, optimized for cost and flexibility
Series
E2
CPU platform selection based on availability
Machine type
e2-medium (2 vCPU, 4 GB memory)
vCPU
1 shared core
Memory
4 GB
GPUs
-
CPU platform and GPU
You have Rp4,220,392.79538 free trial credits remaining
$25.46 monthly estimate
That's about $0.035 hourly
Pay for what you use: No upfront costs and per second billing
Details
10:43


Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
Google Cloud Platform
console.cloud.google.com/compute/instancesAdd?project=calvina01&rif_reserved
Google Cloud Platform
calvina
Search products and resources
Create an instance
Image
Debian GNU/Linux 10 (buster)
Change
Identity and API access
Service account
Compute Engine default service account
Access scopes
Allow default access
Allow full access to all Cloud APIs
Set access for each API
Firewall
Add tags and firewall rules to allow specific network traffic from the Internet
Allow HTTP traffic
Allow HTTPS traffic
Management, security, disks, networking, sole tenancy
You will be billed for this instance. Compute Engine pricing
Create
Cancel
Equivalent REST or command line
10:43


Dashboard
MODUL 6 PRAKTIKUM.pdf - Goo
VM instances – Compute Engine
console.cloud.google.com/compute/instances?project=calvina01&onCreate=true
Google Cloud Platform
calvina
Search products and resources
Compute Engine
VM instances
CREATE INSTANCE
IMPORT VM
REFRESH
START / RESUME
STOP
HIDE INFO PANEL
LEARN
Virtual machines
VM instances
Instance templates
Sole-tenant nodes
Machine images
TPUs
Migrate for Compute Engi...
Committed use discounts
Storage
Instance groups
Marketplace
Release Notes
Google recommends updating from Global DNS to Zonal DNS to reduce the risk from future cross-regional outages. If you experience connection issues you can revert this update by removing this key-value pair from the metadata page. Learn More
UPDATE
DISMISS
INSTANCES
INSTANCE SCHEDULE
Filter
Enter property name or value
Name
Zone
Recommendations
In use by
Internal
calvina-vm
us-central1-a
10.128 (nic0)
Related Actions
DISMISS
View Billing Report
View and manage your Compute Engine billing
Monitor VMs
View outlier VMs across metrics like CPU and Network
Explore VM Logs
View, search, analyze, and download VM instance logs
Setup Firewall Rules
Control traffic to and from a VM instance
Select an instance
PERMISSIONS
LABELS
MONITORING
Please select at least one resource.
10:44




```
vinac2625@calvina-vm:~$ sudo apt-get install \
> default-mysql-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  galera-3 gawk libaio1 libcgi-fast-perl libcgi-pm-perl libconfig-inifiles-perl libdbd-mysql-perl libdbi-perl
  libencode-locale-perl libfcgi-perl libgdbm-compat4 libhtml-parser-perl libhtml-tagset-perl
  libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl liblwp-mediatypes-perl libmariadb3
  libmpfr6 libperl5.28 libreadline5 libsigsegv2 libsnappy1v5 libterm-readkey-perl libtimedate-perl liburi-perl
  lsof mariadb-client-10.3 mariadb-client-core-10.3 mariadb-common mariadb-server-10.3 mariadb-server-core-10.3
  mysql-common perl perl-modules-5.28 psmisc rsync socat
Suggested packages:
  gawk-doc libclone-perl libmldbm-perl libnet-daemon-perl libsql-statement-perl libdata-dump-perl
  libipc-shareddcache-perl libwww-perl mailx mariadb-test netcat-openbsd tinyca perl-doc libterm-readline-gnu-perl
  | libterm-readline-perl-perl make libb-debug-perl liblocale-codes-perl
The following NEW packages will be installed:
  default-mysql-server galera-3 gawk libaio1 libcgi-fast-perl libcgi-pm-perl libconfig-inifiles-perl
  libdbd-mysql-perl libdbi-perl libencode-locale-perl libfcgi-perl libgdbm-compat4 libhtml-parser-perl
  libhtml-tagset-perl libhtml-template-perl libhttp-date-perl libhttp-message-perl libio-html-perl
  liblwp-mediatypes-perl libmariadb3 libmpfr6 libperl5.28 libreadline5 libsigsegv2 libsnappy1v5
  libterm-readkey-perl libtimedate-perl liburi-perl lsof mariadb-client-10.3 mariadb-client-core-10.3
  mariadb-common mariadb-server-10.3 mariadb-server-core-10.3 mysql-common perl perl-modules-5.28 psmisc rsync
  socat
0 upgraded, 40 newly installed, 0 to remove and 9 not upgraded.
Need to get 29.7 MB of archives.
After this operation, 218 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

```
vinac2625@calvina-vm:~$ mysql -h 35.184.148.205 -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MySQL connection id is 151
Server version: 5.7.33-google-log (Google)

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MySQL [(none)]>
```

LATIHAN 2

```
MySQL [(none)]> CREATE DATABASE bioskop;
Query OK, 1 row affected (0.006 sec)

MySQL [(none)]> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| bioskop            |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
5 rows in set (0.003 sec)

MySQL [(none)]>
```

```
MySQL [(none)]> use bioskop
Database changed
MySQL [bioskop]> CREATE TABLE pelanggan(
    -> id_pelanggan varchar(5) NOT NULL,
    -> nama_pelanggan varchar(30) NOT NULL,
    -> alamat text,
    -> telepon varchar(15),
    -> email varchar(30),
    -> PRIMARY KEY (id_pelanggan)
    -> );
Query OK, 0 rows affected (0.044 sec)

MySQL [bioskop]>
```

```
MySQL [bioskop]> show tables;
+------------------+
| Tables_in_bioskop |
+------------------+
| pelanggan        |
+------------------+
1 row in set (0.003 sec)
```

```
MySQL [bioskop]> CREATE TABLE operator (
    -> id VARCHAR (20) NOT NULL,
    -> nama VARCHAR (50) NOT NULL,
    -> password VARCHAR(100) NOT NULL,
    -> created_at DATETIME NOT NULL,
    -> updated_at TIMESTAMP,
    -> PRIMARY KEY (id)
    -> );
Query OK, 0 rows affected (0.032 sec)

MySQL [bioskop]> show tables;
+------------------+
| Tables_in_bioskop |
+------------------+
| operator         |
| pelanggan        |
+------------------+
2 rows in set (0.003 sec)

MySQL [bioskop]>
```