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File profider.tf

```
provider "aws" {
    region = "eu-west-2"
}
```

File vpc.tf

1. VPC

```
resource "aws_vpc" "latihan-vpc-awan_mendung" {
    cidr_block = "10.0.0.0/18"
    tags = {
        Name = "latihan vpc awan mendung"
    }
}
```

2. Access control list (ACL)

```
resource "aws_network_acl" "latihan-acl-awan_mendung" {
    vpc_id = aws_vpc.latihan-vpc-awan_mendung.id

    ingress{
        protocol = "tcp"
        rule_no = 100
        action = "allow"
        cidr_block = "0.0.0.0/0"
        from_port = 3306
        to_port = 3306
    }

    ingress {
        protocol = "tcp"
        rule_no = 101
        action = "allow"
        cidr_block = "0.0.0.0/0"
        from_port = 22
        to_port = 22
    }

    egress {
        protocol = -1
        rule_no = 100
        action = "allow"
        cidr_block = "0.0.0.0/0"
        from_port = 0
        to_port = 0
    }

    tags = {
        Name = "latihan acl awan mendung"
    }
}
```

3. Availability Zone a

```
resource "aws_subnet" "latihan-public-subnet-awan_mendung" {
    vpc_id = aws_vpc.latihan-vpc-awan_mendung.id
    cidr_block = "10.0.0.0/24"
    map_public_ip_on_launch = "true"
    availability_zone = "eu-west-2a"

    tags = {
        Name = "latihan public subnet awan mendung"
    }
}

resource "aws_subnet" "latihan-private-subnet-awan_mendung" {
    vpc_id = aws_vpc.latihan-vpc-awan_mendung.id
    cidr_block = "10.0.1.0/24"
    map_public_ip_on_launch = "false"
    availability_zone = "eu-west-2a"

    tags = {
        Name = "latihan private subnet awan mendung"
    }
}
```

4. Availability Zone b (update)

```
resource "aws_subnet" "latihan-public-subnet2-awan_mendung" {
    vpc_id = aws_vpc.latihan-vpc-awan_mendung.id
    cidr_block = "10.0.2.0/24"
    map_public_ip_on_launch = "true"
    availability_zone = "eu-west-2b"

    tags = {
        Name = "latihan public subnet 2 awan mendung"
    }
}

resource "aws_subnet" "latihan-private-subnet2-awan_mendung" {
    vpc_id = aws_vpc.latihan-vpc-awan_mendung.id
    cidr_block = "10.0.3.0/24"
    map_public_ip_on_launch = "false"
    availability_zone = "eu-west-2b"

    tags = {
        Name = "latihan private subnet 2 awan mendung"
    }
}
```

5. Asosiasi ACL dengan private subnet

```
resource "aws_network_acl_association" "latihan-acl-assoc-awan_mendung" {
    network_acl_id = aws_network_acl.latihan-acl-awan_mendung.id
    subnet_id = aws_subnet.latihan-private-subnet-awan_mendung.id
}

resource "aws_network_acl_association" "latihan-acl-assoc2-awan_mendung" {
    network_acl_id = aws_network_acl.latihan-acl-awan_mendung.id
    subnet_id = aws_subnet.latihan-private-subnet2-awan_mendung.id
}
```

6. Internet gateway

```
resource "aws_internet_gateway" "latihan-igw-awan_mendung" {
    vpc_id = aws_vpc.latihan-vpc-awan_mendung.id

    tags = {
        Name = "latihan igw awan mendung"
    }
}
```

7. Router table public

```
resource "aws_route_table" "latihan-public-rt-awan_mendung" {
    vpc_id = aws_vpc.latihan-vpc-awan_mendung.id

    route {
        cidr_block = "0.0.0.0/0"
        gateway_id = aws_internet_gateway.latihan-igw-awan_mendung.id
    }

    tags = {
        Name = "latihan public rt awan mendung"
    }
}
```

8. Asosiasi Public Subnet dan Router Public (update)

```
resource "aws_route_table_association" "latihan-public-rta-awan_mendung" {
    subnet_id = aws_subnet.latihan-public-subnet-awan_mendung.id
    route_table_id = aws_route_table.latihan-public-rt-awan_mendung.id
}

resource "aws_route_table_association" "latihan-public-rta2-awan_mendung" {
    subnet_id = aws_subnet.latihan-public-subnet2-awan_mendung.id
    route_table_id = aws_route_table.latihan-public-rt-awan_mendung.id
}
```

File ec2.tf

1. Security Group untuk EC2

```
resource "aws_security_group" "latihan-security-group-awan_mendung" {
  description = "Allow limited inbound external traffic"
  vpc_id = "${aws_vpc.latihan-vpc-awan_mendung.id}"

  name = "latihan-sg-awan-mendung"

  ingress {
    protocol = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
    from_port = 22
    to_port = 22
  }

    ingress {
    protocol = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
    from_port = 3000
    to_port = 3000
  }

  ingress {
    protocol = "tcp"
    cidr_blocks = ["0.0.0.0/0"]
    from_port = 3306
    to_port = 3306
  }

  ingress {
    protocol = "icmp"
    cidr_blocks = ["0.0.0.0/0"]
    from_port = -1
    to_port = -1
  }

  egress {
    protocol = -1
    cidr_blocks = ["0.0.0.0/0"]
    from_port = 0
    to_port = 0
  }

  tags = {
    Name = "latihan-sg-awan-mendung"
  }

}
```

2. Key Pair

```
resource  "tls_private_key" "rsa" {
  algorithm = "RSA"
  rsa_bits = 4096
}

resource "local_file" "LatihanPrivateKeyPairAwanMendung" {
  filename = "latihanKeyPairAwanMendung"
  content = tls_private_key.rsa.private_key_pem
}

resource "aws_key_pair" "latihanKeyPairAwanMendung" {
  key_name = "latihanKeyPairAwanMendung"
  public_key = tls_private_key.rsa.public_key_openssh
}
```

3. Data template file

```
data "template_file" "user_data" {
  template = "${file("scriptku.sh")}"
  vars = {
    rds_address = "${aws_db_instance.latihan_db_rds_awan_mendung.address}"
    rds_username = "${aws_db_instance.latihan_db_rds_awan_mendung.username}"
    rds_password = "${aws_db_instance.latihan_db_rds_awan_mendung.password}"
    rds_db_name = "${aws_db_instance.latihan_db_rds_awan_mendung.db_name}"
  }
}
```

4. scriptku.sh

```
#!/bin/bash
sudo apt-get update
sudo apt install default-mysql-client -y
#sudo mysql -u "${rds_username}" --password="${rds_password}" --host "${rds_address}" -e "CREATE DATABASE ${rds_db_name} /
*!40100 DEFAULT CHARACTER SET utf8 */;"
sudo apt install nodejs npm -y
cd /home/admin
sudo mkdir myapp
cd myapp
git clone https://github.com/jokoprsty/latihan_rds.git
cd latihan_rds
echo "DB_USER=${rds_username}" >> .env
echo "DB_PASS=${rds_password}" >> .env
echo "DB_NAME=${rds_db_name}" >> .env
echo "DB_HOST=${rds_address}" >> .env
sudo npm install
sudo npm install pm2 -g
sudo pm2 start /home/admin/myapp/latihan_rds/app.js -u admin --watch
sudo pm2 save
pm2 startup
```

5. EC2 instance (update)

```
locals {
  loc_ami = "ami-0efc5833b9d584374"
  loc_instance_type = "t2.micro"
}

resource "aws_instance" "latihan-ec2-awan_mendung" {
  depends_on = [ aws_db_instance.latihan_db_rds_awan_mendung ]
  ami = local.loc_ami
  instance_type = local.loc_instance_type
  key_name = aws_key_pair.latihanKeyPairAwanMendung.key_name
  vpc_security_group_ids = [ "${aws_security_group.latihan-security-group-awan_mendung.id}"]
  subnet_id = "${aws_subnet.latihan-public-subnet-awan_mendung.id}"
  user_data = data.template_file.user_data.rendered
  tags = {
    Name = "latihan-ec2-awan_mendung"
  }
}

resource "aws_instance" "latihan-ec2-2-awan_mendung" {
  depends_on = [ aws_db_instance.latihan_db_rds_awan_mendung ]
  ami = local.loc_ami
  instance_type = local.loc_instance_type
  key_name = aws_key_pair.latihanKeyPairAwanMendung.key_name
  vpc_security_group_ids = [ "${aws_security_group.latihan-security-group-awan_mendung.id}"]
  subnet_id = "${aws_subnet.latihan-public-subnet2-awan_mendung.id}"
  user_data = data.template_file.user_data.rendered
  tags = {
    Name = "latihan-ec2-2-awan_mendung"
  }
}
```

File rds.tf

1. Subnet group RDS

```
resource "aws_db_subnet_group" "latihan_subnet_db_awan_mendung"{
    name = "latihan_subnet_db"
    subnet_ids = [aws_subnet.latihan-private-subnet-awan_mendung.id,aws_subnet.latihan-private-subnet2-awan_mendung.id]

    tags = {
        Name = "latihan_subnet_db_awan_mendung"
    }
}
```

2. Security group untuk RDS

```
resource "aws_security_group" "latihan-rds-sg-awan_mendung" {
    name = "latihan_rds_sg_awan_mendung"
    vpc_id = aws_vpc.latihan-vpc-awan_mendung.id

    ingress {
        from_port = 3306
        to_port = 3306
        protocol = "tcp"
        cidr_blocks = ["0.0.0.0/0"]
    }

    egress {
        from_port = 3306
        to_port = 3306
        protocol = "tcp"
        cidr_blocks = ["0.0.0.0/0"]
    }

    tags = {
        Name = "latihan_rds_sg_awan_mendung"
    }
}
```

3. RDS (update)

```
resource "aws_db_instance" "latihan_db_rds_awan_mendung" {
    identifier = "latihan-db-rds-awanmendung"
    instance_class = "db.t3.micro"
    allocated_storage = 20
    engine = "mariadb"
    engine_version = "10.6.14"
    username = "latihan"
    password = 12345678
    db_name = "my_project"
    db_subnet_group_name = aws_db_subnet_group.latihan_subnet_db_awan_mendung.name
    vpc_security_group_ids = [aws_security_group.latihan-rds-sg-awan_mendung.id]
    publicly_accessible = false
    skip_final_snapshot = true
    multi_az = true
}
```

File lb.tf

1. Jenis load balancer

```
resource "aws_lb" "latihan-lb-awan-mendung" {
  name = "latihan-lb-awan-mendung"
  internal = false
  load_balancer_type = "application"
  security_groups = [aws_security_group.latihan-security-group-awan_mendung.id]
  subnets = [ aws_subnet.latihan-public-subnet-awan_mendung.id,aws_subnet.latihan-public-subnet2-awan_mendung.id ]

}
```

2. Load balancer target group

```
resource "aws_lb_target_group" "latihan-lb-target-group-awan-mendung" {
  name = "latihan-lb-target-group-awan"
  port = 3000
  protocol = "HTTP"
  vpc_id = aws_vpc.latihan-vpc-awan_mendung.id
}
```

3. Mengasosiasi target group dengan instance

```
resource "aws_lb_target_group_attachment" "latihan-lb-tga1-awan-mendung" {
  target_group_arn = aws_lb_target_group.latihan-lb-target-group-awan-mendung.arn
  target_id = aws_instance.latihan-ec2-awan_mendung.id
  port = 3000
}


resource "aws_lb_target_group_attachment" "latihan-lb-tga2-awan-mendung" {
  target_group_arn = aws_lb_target_group.latihan-lb-target-group-awan-mendung.arn
  target_id = aws_instance.latihan-ec2-2-awan_mendung.id
  port = 3000
}
```

4. Load balancer listener

```
resource "aws_lb_listener" "latihan_lb_listener_awan_mendung" {
  load_balancer_arn = aws_lb.latihan-lb-awan-mendung.arn
  port = "3000"
  protocol = "HTTP"

  default_action {
    type = "forward"
    target_group_arn = aws_lb_target_group.latihan-lb-target-group-awan-mendung.arn
  }
}
```

File autoscaling.tf

1. Launch template

2. Autoscalling group

3. Autoscaling policy

Terraform init

```
PS C:\Users\acer\Documents\Tugas Ongoing\Pertemuan 13 Awan\AwanMendung> terraform init
Initializing the backend...
Initializing provider plugins...
- Reusing previous version of hashicorp/local from the dependency lock file
- Reusing previous version of hashicorp/template from the dependency lock file
- Reusing previous version of hashicorp/aws from the dependency lock file
- Reusing previous version of hashicorp/tls from the dependency lock file
- Using previously-installed hashicorp/aws v5.94.1
- Using previously-installed hashicorp/tls v4.0.6
- Using previously-installed hashicorp/local v2.5.2
```

Terraform plan

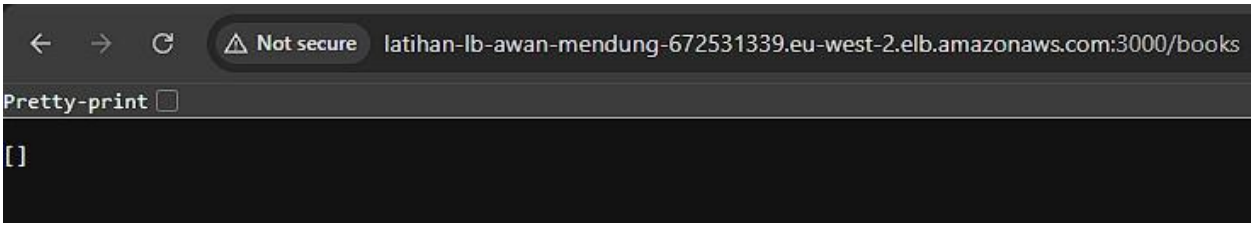
```
PS C:\Users\acer\Documents\Tugas Ongoing\Pertemuan 13 Awan\AwanMendung> terraform plan

Terraform used the selected providers to generate the following execution plan. Resource actions are indicated with the following symbols:
  + create
 <= read (data resources)

Terraform will perform the following actions:

  # data.template_file.user_data will be read during apply
```


Terraform apply

```
aws_autoscaling_group.latihan-autoscaling-group-awan_mendung: Still creating... [10s elapsed]
aws_autoscaling_group.latihan-autoscaling-group-awan_mendung: Still creating... [20s elapsed]
aws_autoscaling_group.latihan-autoscaling-group-awan_mendung: Still creating... [30s elapsed]
aws_autoscaling_group.latihan-autoscaling-group-awan_mendung: Still creating... [40s elapsed]
aws_autoscaling_group.latihan-autoscaling-group-awan_mendung: Creation complete after 49s [id=latihan-
aws_autoscaling_policy.latihan-auto-policy-awan_mendung: Creating...
aws_autoscaling_policy.latihan-auto-policy-awan_mendung: Creation complete after 3s [id=latihan-auto-p

Apply complete! Resources: 2 added, 0 changed, 1 destroyed.
```

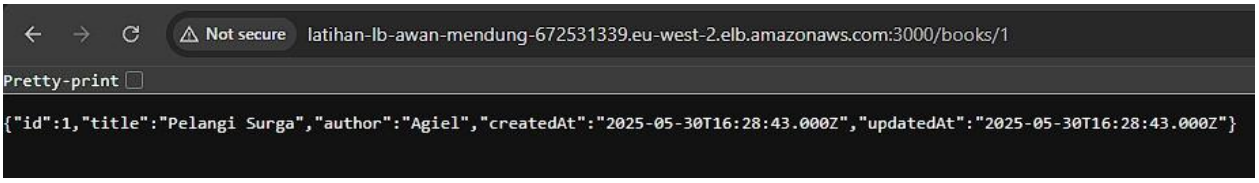
Jalankan aplikasi web

- Buka browser, kemudian copy alamat dns pada menu load balancer di halaman ec2 ke browser, buka dengan port 3000(jika tidak muncul, tunggu beberapa saat, cek ec2 sampai selesai initializing):
    - dns_load_balancer:3000/books

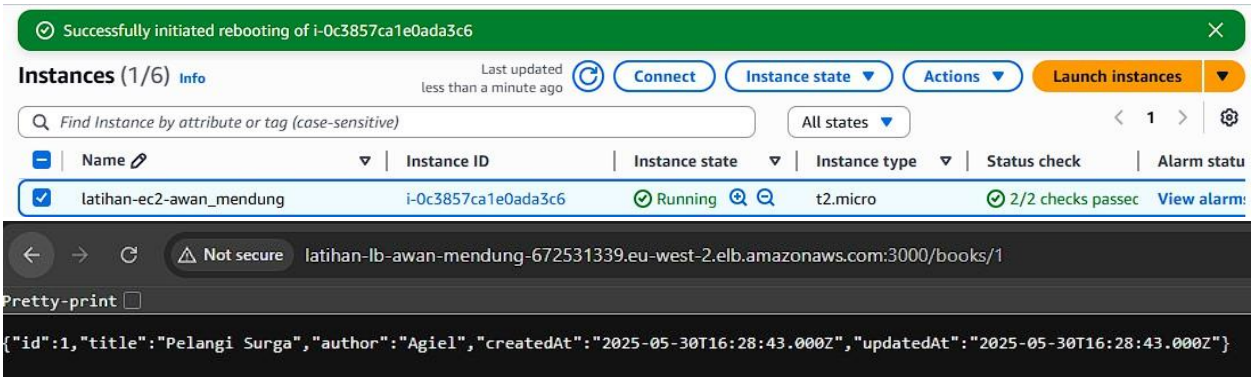


- Insert data ke dalam mysql melalui ec2(gunakan ssh), insert data dengan menggunakan alamat mysql yang ada di /home/admin/myapp/latihan_rds/.env, kemudian buka di browser
    - dns_load_balancer:3000/books/1

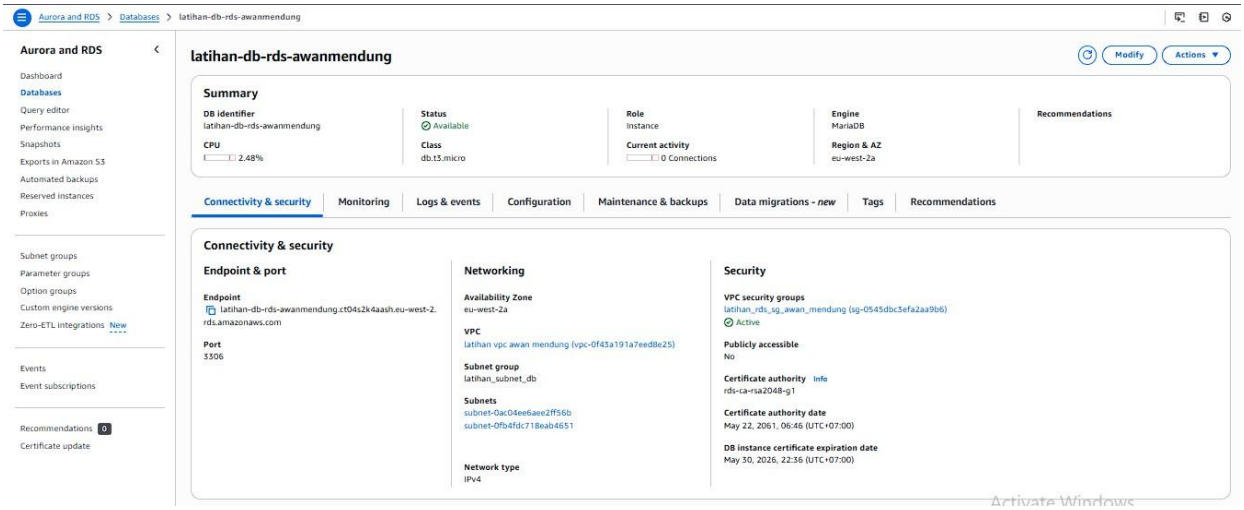
```
admin@ip-10-0-0-227: ~/myapp/latihan_rds
login as: admin
Authenticating with public key "imported-openssh-key"
Linux ip-10-0-0-227 6.1.0-23-cloud-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.1.99-1
(2024-07-15) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Fri May 30 16:11:31 2025 from 104.28.247.132
admin@ip-10-0-0-227:~$ cd /home/admin/myapp/latihan_rds
admin@ip-10-0-0-227:~/myapp/latihan_rds$ sudo mysql -h latihan-db-rds-awanmendun
g.ct04s2k4aash.eu-west-2.rds.amazonaws.com -u latihan -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 105
Server version: 10.6.14-MariaDB managed by https://aws.amazon.com/rds/

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

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

MariaDB [(none)]> use database my_project
ERROR 1049 (42000): Unknown database 'database'
MariaDB [(none)]> use my_project
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [my_project]> insert into Books (title, author, createAt, updateAt) valu
es ("Pelangi Surga", "Agiel", NOW(), NOW());
ERROR 1054 (42S22): Unknown column 'createAt' in 'field list'
MariaDB [my_project]> insert into Books (title, author, createdAt, updateAt) val
ues ("Pelangi Surga", "Agiel", NOW(), NOW());
ERROR 1054 (42S22): Unknown column 'updateAt' in 'field list'
MariaDB [my_project]> insert into Books (title, author, createdAt, updatedAt) va
lues ("Pelangi Surga", "Agiel", NOW(), NOW());
Query OK, 1 row affected (0.003 sec)

MariaDB [my_project]>
```



- stop ec2 pada availability zone a, tunggu sebentar sampai status stopped, kemudian cek lagi di browser ke-2 langkah di atas



Cek failover pada RDS



Install stress test

- Login ke salah satu ec2

- Install stress package:

- sudo apt update
- sudo apt upgrade
- sudo apt install stress

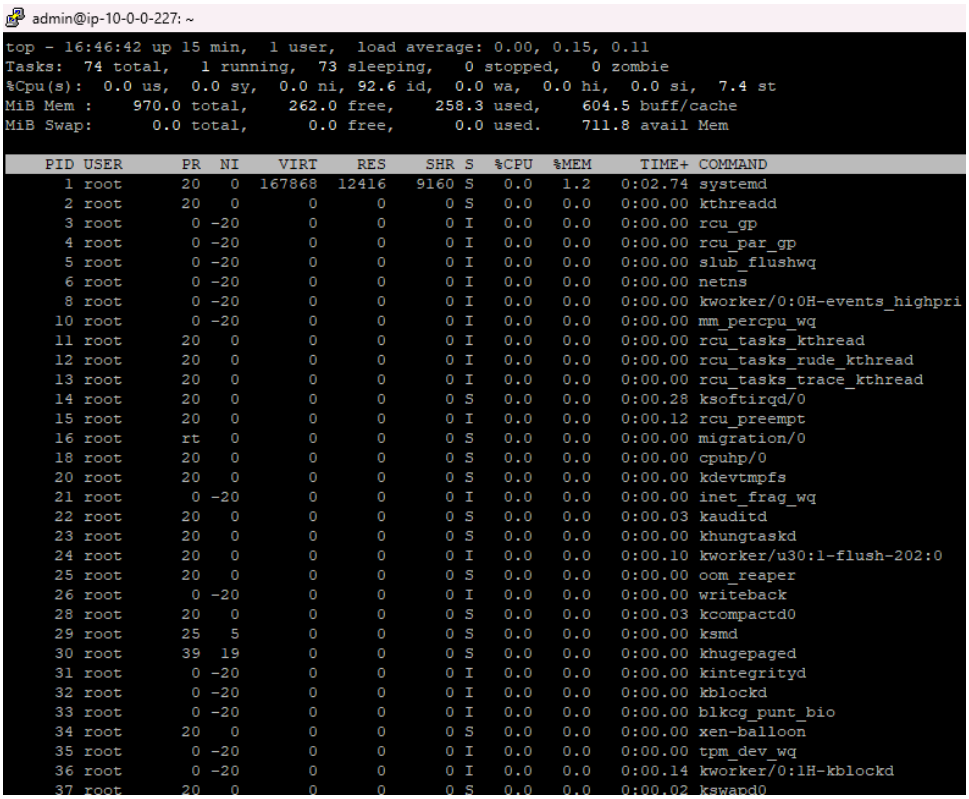
```
admin@ip-10-0-0-227:~$ sudo apt update
Get:1 file:/etc/apt/mirrors/debian.list Mirrorlist [38 B]
Get:5 file:/etc/apt/mirrors/debian-security.list Mirrorlist [47 B]
Hit:2 https://cdn-aws.deb.debian.org/debian bookworm InRelease
Hit:3 https://cdn-aws.deb.debian.org/debian bookworm-updates InRelease
Hit:4 https://cdn-aws.deb.debian.org/debian bookworm-backports InRelease
Hit:6 https://cdn-aws.deb.debian.org/debian-security bookworm-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
78 packages can be upgraded. Run 'apt list --upgradable' to see them.
admin@ip-10-0-0-227:~$ sudo apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following NEW packages will be installed:
  firmware-linux-free linux-image-6.1.0-37-cloud-amd64
The following packages will be upgraded:
  base-files bash bind9-host bind9-libs bsdextrautils bsdutils cloud-init
  cloud-initramfs-growroot curl debian-archive-keyring distro-info-data eject
  fdisk initramfs-tools initramfs-tools-core iputils-ping libblkid1 libcap2
  libcap2-bin libcurl3-gnutls libcurl4 libexpat1 libfdisk1 libfreetype6
  libglib2.0-0 libgnutls30 libgssapi-krb5-2 libk5crypto3 libkrb5-3
  libkrb5support0 liblzma5 libmount1 libnghttp2-14 libnss-myhostname
  libpam-systemd libpython3.11-minimal libpython3.11-stdlib libsmartcols1
  libsqlite3-0 libsystemd-shared libsystemd0 libtasn1-6 libudev1 libuuid1
  linux-image-cloud-amd64 login mount openssh-client openssh-server
  openssh-sftp-server passwd python3-cryptography python3-jinja2
  python3-pkg-resources python3-urllib3 python3.11 python3.11-minimal
  qemu-utils shim-helpers-amd64-signed shim-signed shim-signed-common
```

```
admin@ip-10-0-0-227:~$ sudo apt install stress
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  stress
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 21.9 kB of archives.
After this operation, 57.3 kB of additional disk space will be used.
Get:1 file:/etc/apt/mirrors/debian.list Mirrorlist [38 B]
Get:2 https://cdn-aws.deb.debian.org/debian bookworm/main amd64 stress amd64 1.0
.7-1 [21.9 kB]
Fetched 21.9 kB in 0s (318 kB/s)
Selecting previously unselected package stress.
(Reading database ... 72700 files and directories currently installed.)
Preparing to unpack .../stress_1.0.7-1_amd64.deb ...
Unpacking stress (1.0.7-1) ...
Setting up stress (1.0.7-1) ...
Processing triggers for man-db (2.11.2-2) ...
```

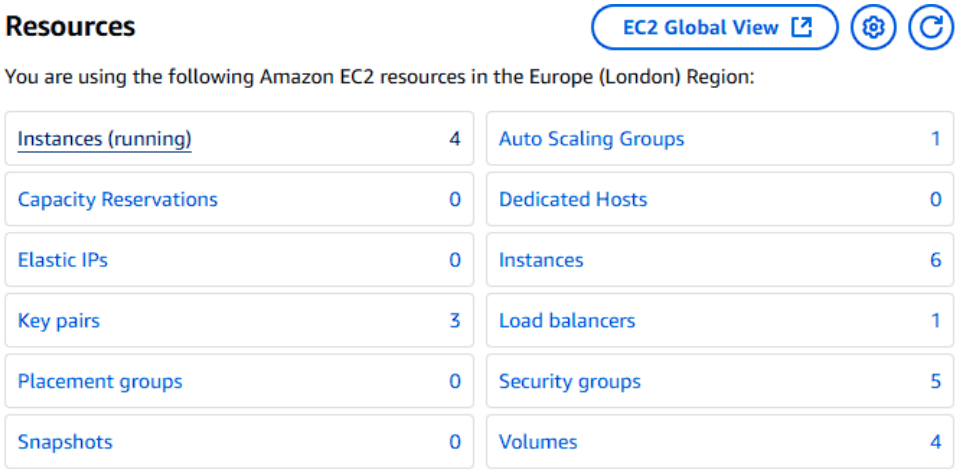
- Jalankan stress test:
  - sudo stress --cpu 2 --timeout 600

```
Processing triggers for man-db (2.11.2-2) ...
admin@ip-10-0-0-227:~$ sudo stress --cpu -- timeout 600
stress: FAIL: [12929] (167) missing argument to option '--cpu'
admin@ip-10-0-0-227:~$ sudo stress --cpu 2  --timeout 600
stress: info: [12932] dispatching hogs: 2 cpu, 0 io, 0 vm, 0 hdd
^C
admin@ip-10-0-0-227:~$ sudo stress --cpu 2  --timeout 600
stress: info: [12937] dispatching hogs: 2 cpu, 0 io, 0 vm, 0 hdd
```

- mengecek penggunaan cpu, buka terminal baru
  - top



- Cek apakah jumlah instance ec2 bertambah di halaman aws, jika bertambah, artinya auto scaling berhasil, karena salah satu ec2 menjalankan resource yang tinggi karena stress test



Cek Error

Masuk ssh ke ec2 menggunakan putty, setelah masuk, lihat log dengan mengetikkan menggunakan command:

cat /var/log/cloud-init-output.log

```
admin@ip-10-0-0-227: ~
[PM2] [-] Executing: systemctl enable pm2-undefined...
Created symlink /etc/systemd/system/multi-user.target.wants/pm2-undefined.service → /etc/systemd/system/pm2-undefined.s
[PM2] [v] Command successfully executed.
+---------------------------------------+
[PM2] Freeze a process list on reboot via:
$ pm2 save

[PM2] Remove init script via:
$ pm2 unstartup systemd
Cloud-init v. 22.4.2 finished at Fri, 30 May 2025 15:47:37 +0000. Datasource DataSourceEc2Local.  Up 136.55 seconds
Cloud-init v. 22.4.2 running 'init-local' at Fri, 30 May 2025 16:31:27 +0000. Up 3.49 seconds.
Cloud-init v. 22.4.2 running 'init' at Fri, 30 May 2025 16:31:29 +0000. Up 5.52 seconds.
ci-info: ++++++++++++++++++++++++++++++++++++++Net device info++++++++++++++++++++++++++++++++++++++
ci-info: +--------+------+----------------------------+---------------+--------+-------------------+
ci-info: | Device |  Up  |           Address          |      Mask     | Scope  |     Hw-Address    |
ci-info: +--------+------+----------------------------+---------------+--------+-------------------+
ci-info: |  enX0  | True |         10.0.0.227         | 255.255.255.0 | global | 06:c8:ff:14:20:c3 |
ci-info: |  enX0  | True | fe80::4c8:ffff:fe14:20c3/64 |       .       |  link  | 06:c8:ff:14:20:c3 |
ci-info: |   lo   | True |          127.0.0.1         |   255.0.0.0   |  host  |         .         |
ci-info: |   lo   | True |           ::1/128          |       .       |  host  |         .         |
ci-info: +--------+------+----------------------------+---------------+--------+-------------------+
ci-info: ++++++++++++++++++++++++++++Route IPv4 info++++++++++++++++++++++++++++
ci-info: +-------+-------------+----------+-----------------+-----------+-------+
ci-info: | Route | Destination | Gateway  |     Genmask     | Interface | Flags |
ci-info: +-------+-------------+----------+-----------------+-----------+-------+
ci-info: |   0   |   0.0.0.0   | 10.0.0.1 |     0.0.0.0     |    enX0   |   UG  |
ci-info: |   1   |   10.0.0.0  | 0.0.0.0  |  255.255.255.0  |    enX0   |   U   |
ci-info: |   2   |   10.0.0.1  | 0.0.0.0  | 255.255.255.255 |    enX0   |   UH  |
ci-info: |   3   |   10.0.0.2  | 0.0.0.0  | 255.255.255.255 |    enX0   |   UH  |
ci-info: +-------+-------------+----------+-----------------+-----------+-------+
ci-info: +++++++++++++++++++Route IPv6 info+++++++++++++++++++
ci-info: +-------+-------------+---------+-----------+-------+
ci-info: | Route | Destination | Gateway | Interface | Flags |
ci-info: +-------+-------------+---------+-----------+-------+
ci-info: |   0   |  fe80::/64  |    ::   |    enX0   |   U   |
ci-info: |   2   |    local    |    ::   |    enX0   |   U   |
ci-info: |   3   |  multicast  |    ::   |    enX0   |   U   |
ci-info: +-------+-------------+---------+-----------+-------+
Cloud-init v. 22.4.2 running 'modules:config' at Fri, 30 May 2025 16:31:30 +0000. Up 6.32 seconds.
Cloud-init v. 22.4.2 running 'modules:final' at Fri, 30 May 2025 16:31:30 +0000. Up 6.72 seconds.
Cloud-init v. 22.4.2 finished at Fri, 30 May 2025 16:31:30 +0000. Datasource DataSourceEc2Local.  Up 6.81 seconds
admin@ip-10-0-0-227:~$ ^C
admin@ip-10-0-0-227:~$ cat /var/log/cloud-init-output.log
```

Destroy Instance

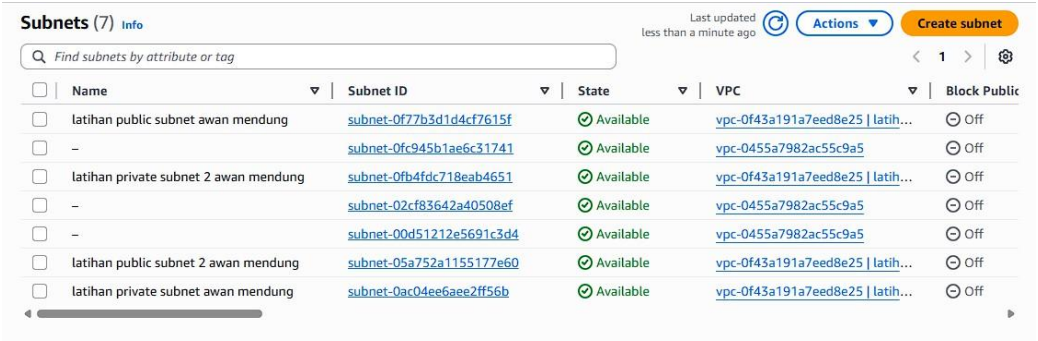
Perintah jika hanya ingin mendestroy salah satu instance ec2

`terraform destroy -target aws_instance.<NAME>`

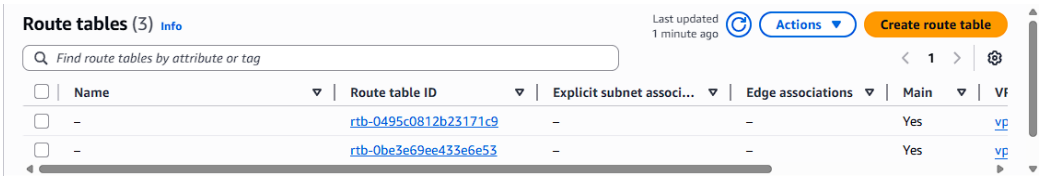
```
admin@ip-10-0-0-227:~$ terraform destroy -target aws_instance.latihan-ec2-2-awan_mendung
```

TUGAS

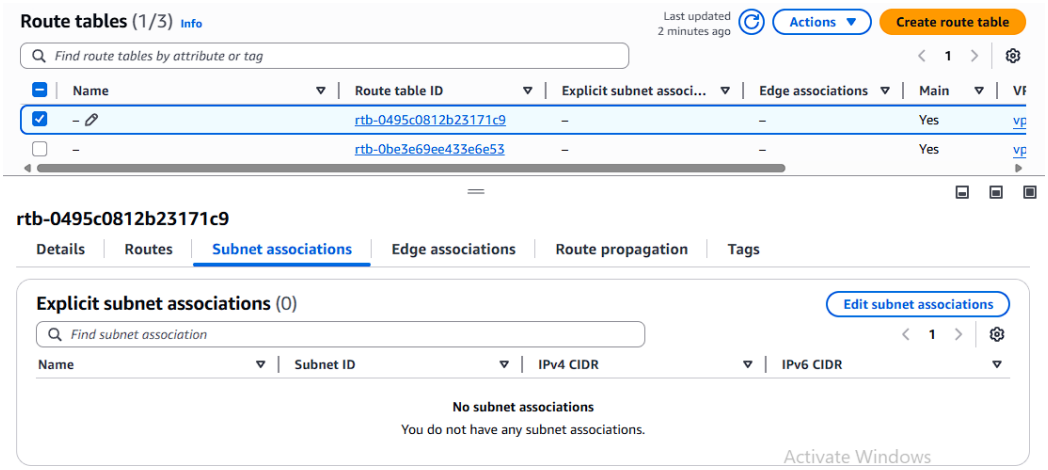
- Screenshot pada AWS:
  - VPC
    - Subnet



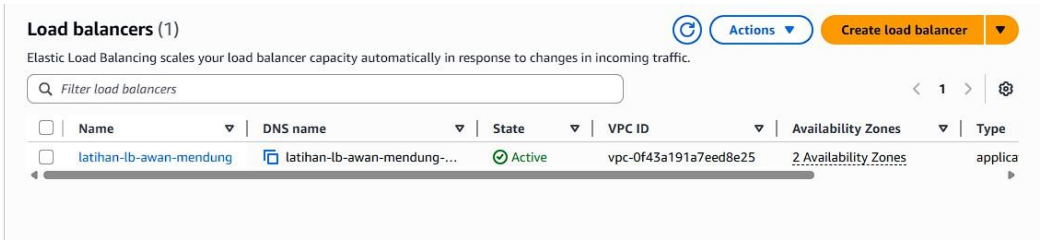
    - Route



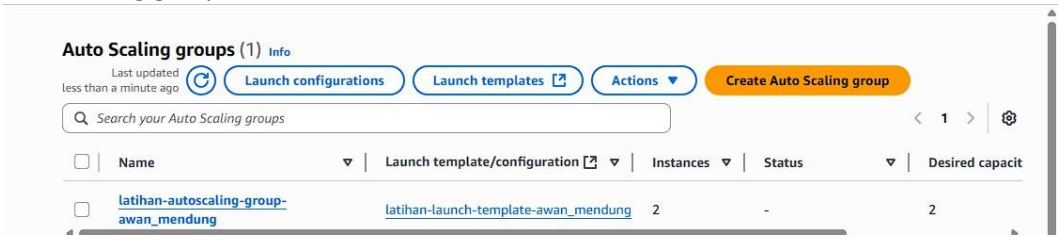
- Router Association



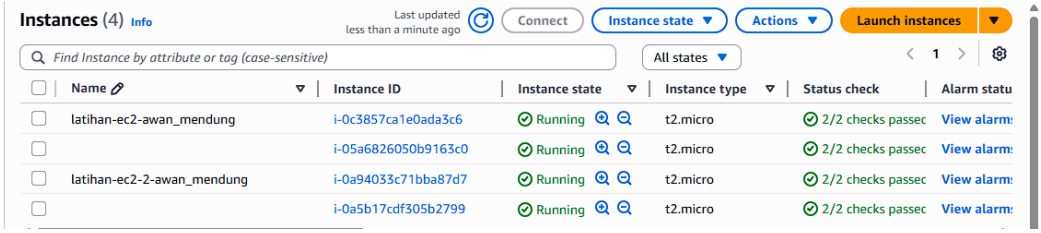
- Load balancers



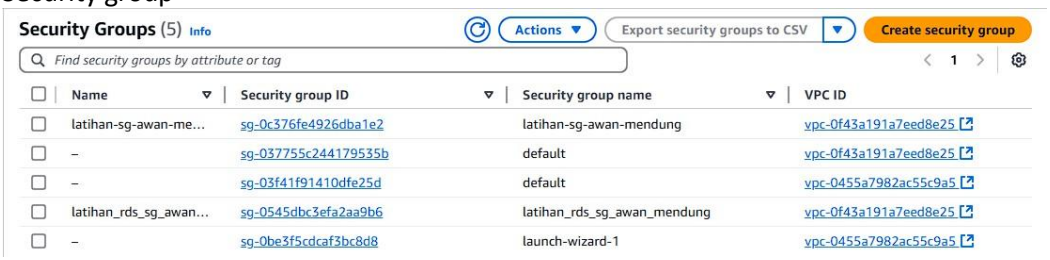
- Auto scaling group



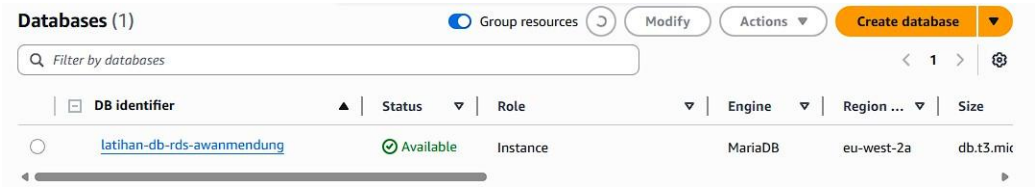
- EC2
  - Instance



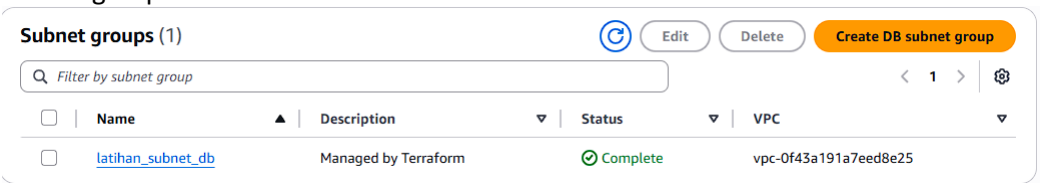
- Security group



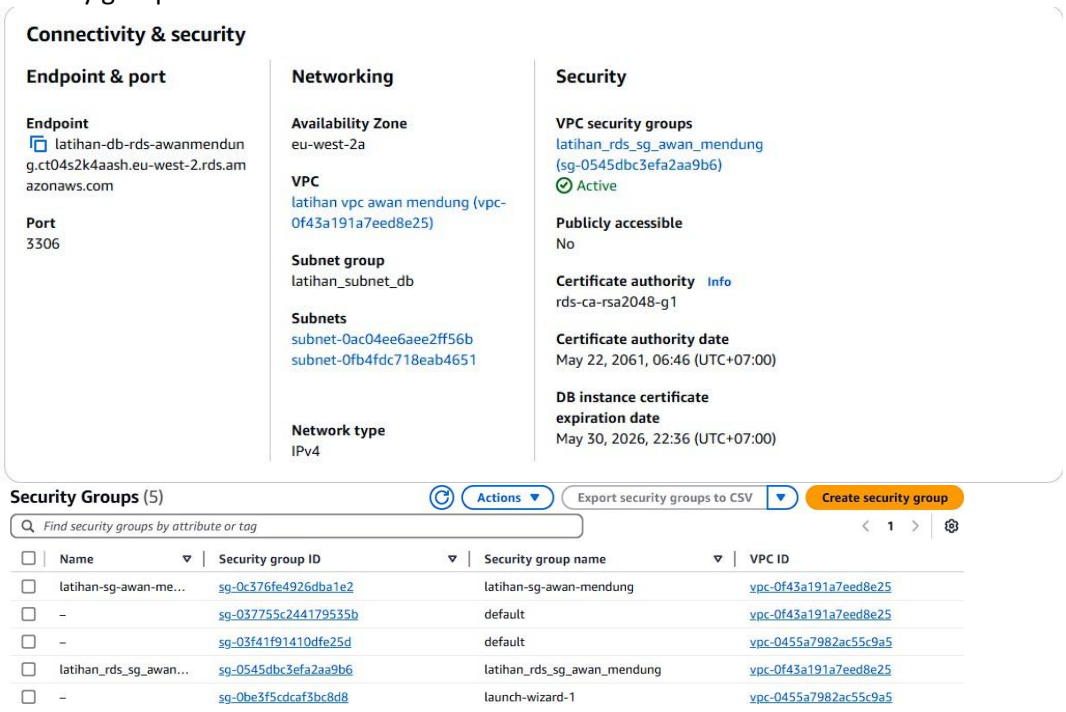
- RDS
  - Database



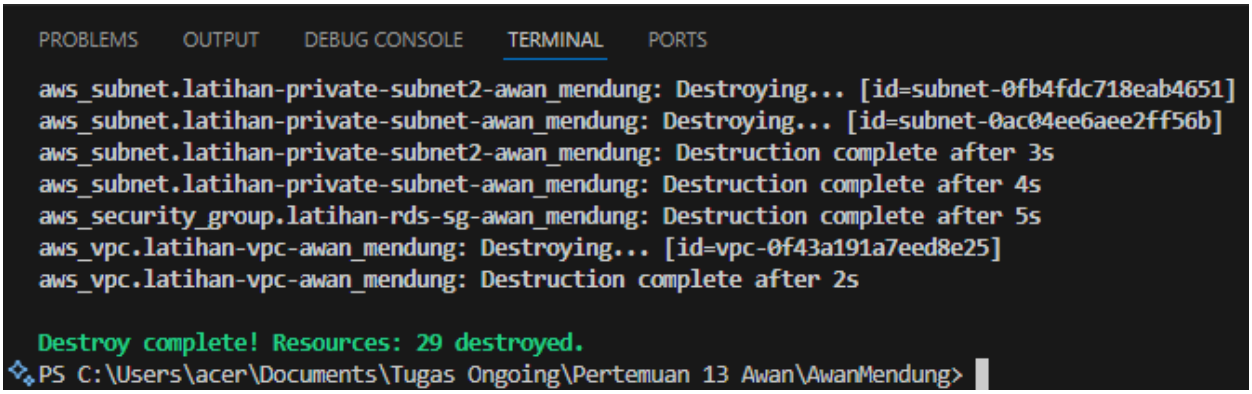
  - Subnet group



  - Security group



- Setelah semua praktikum selesai, lakukan:
  - terraform destroy


PROBLEMS
OUTPUT
DEBUG CONSOLE
TERMINAL
PORTS
aws_subnet.latihan-private-subnet2-awan_mendung: Destroying... [id=subnet-0fb4fdc718eab4651]
aws_subnet.latihan-private-subnet-awan_mendung: Destroying... [id=subnet-0ac04ee6aee2ff56b]
aws_subnet.latihan-private-subnet2-awan_mendung: Destruction complete after 3s
aws_subnet.latihan-private-subnet-awan_mendung: Destruction complete after 4s
aws_security_group.latihan-rds-sg-awan_mendung: Destruction complete after 5s
aws_vpc.latihan-vpc-awan_mendung: Destroying... [id=vpc-0f43a191a7eed8e25]
aws_vpc.latihan-vpc-awan_mendung: Destruction complete after 2s
Destroy complete! Resources: 29 destroyed.
PS C:\Users\acer\Documents\Tugas Ongoing\Pertemuan 13 Awan\AwanMendung>