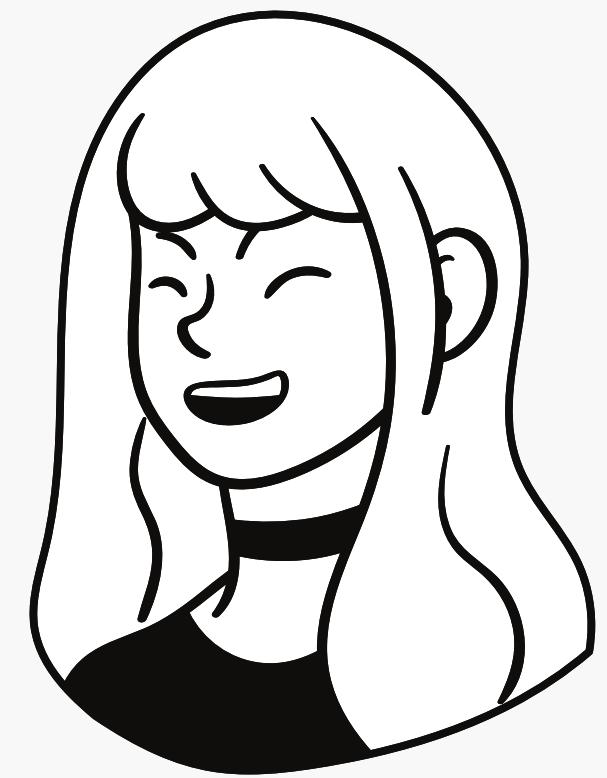


Inkpad

Quick and simple notepad editing experience



ASIYAH HANIFAH

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HERWINDA MARWA

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Introduction

Aplikasi pemrosesan kata yang dapat diakses dimanapun dan kapanpun secara private.

- Login-Register
- Membuat, menampilkan, mengubah, dan menghapus catatan (Implementasi CRUD)
- Menampilkan tanggal dan waktu setiap file diubah atau dibuat.

AWS Services



EC2

Menjalankan dan mengembangkan aplikasi tersebut.



RDS

DATABASE untuk menyimpan data yang diinput ataupun digunakan oleh User.

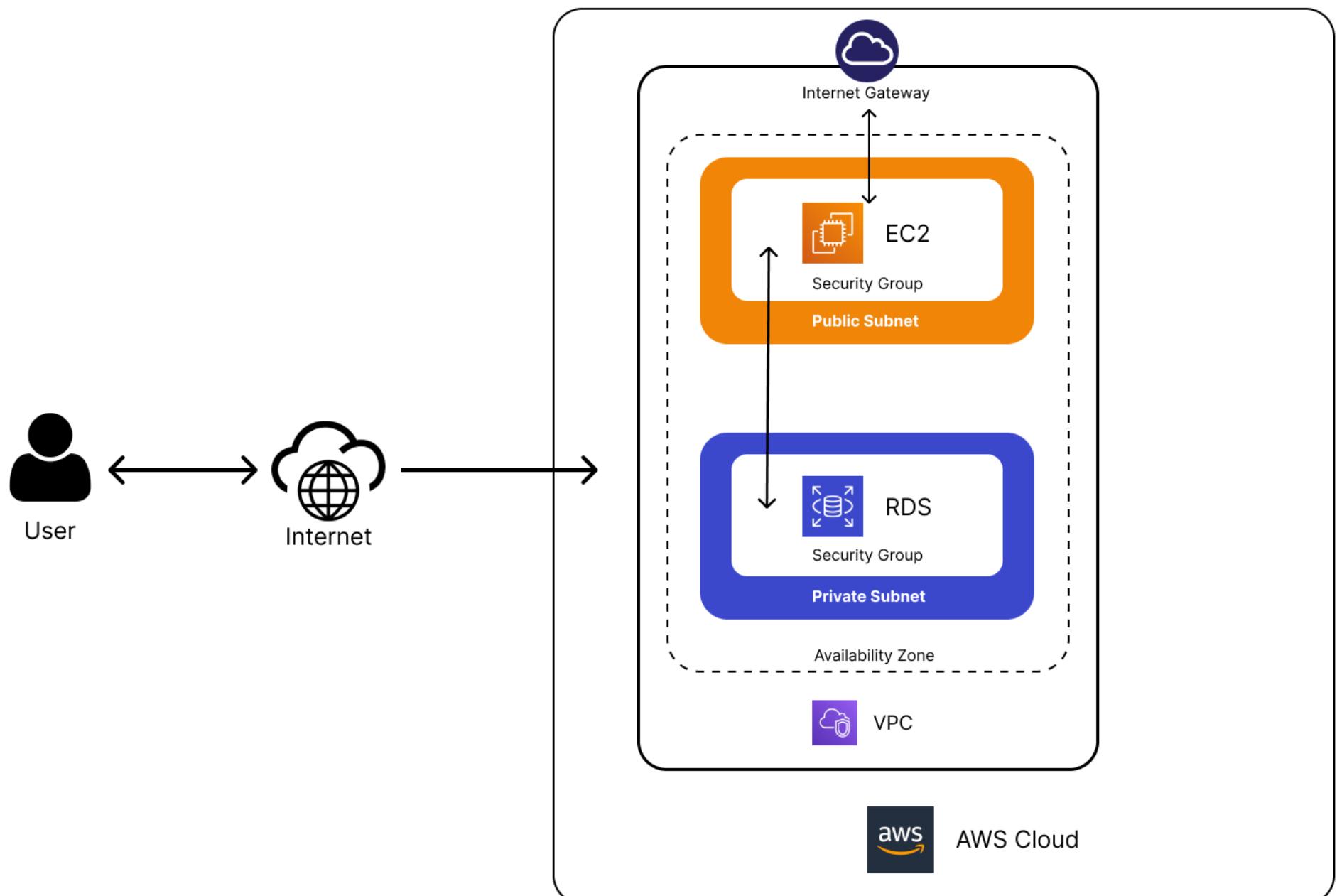


VPC

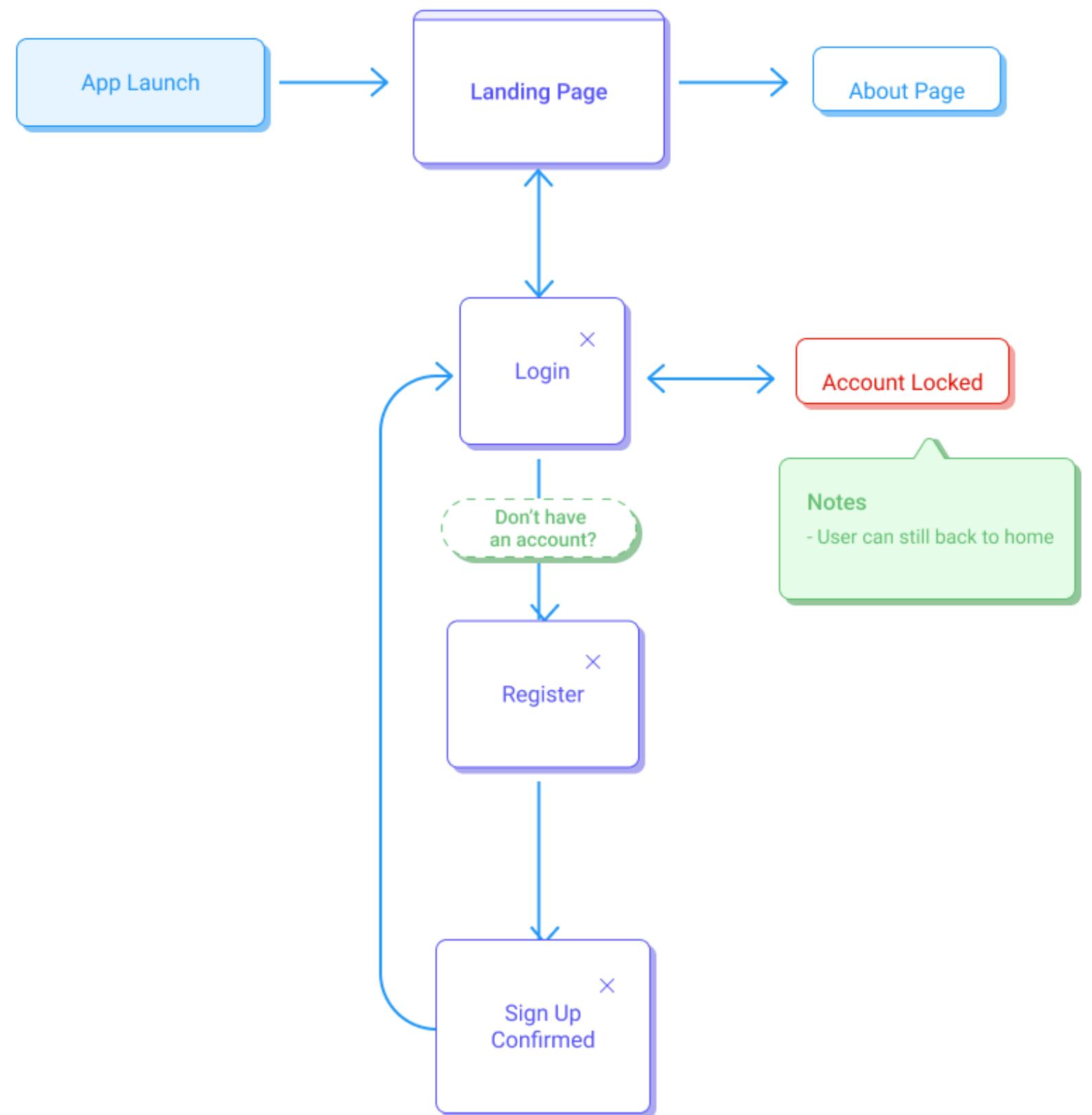
Perantara untuk menyambungkan EC2 dengan RDS.

Arsitektur

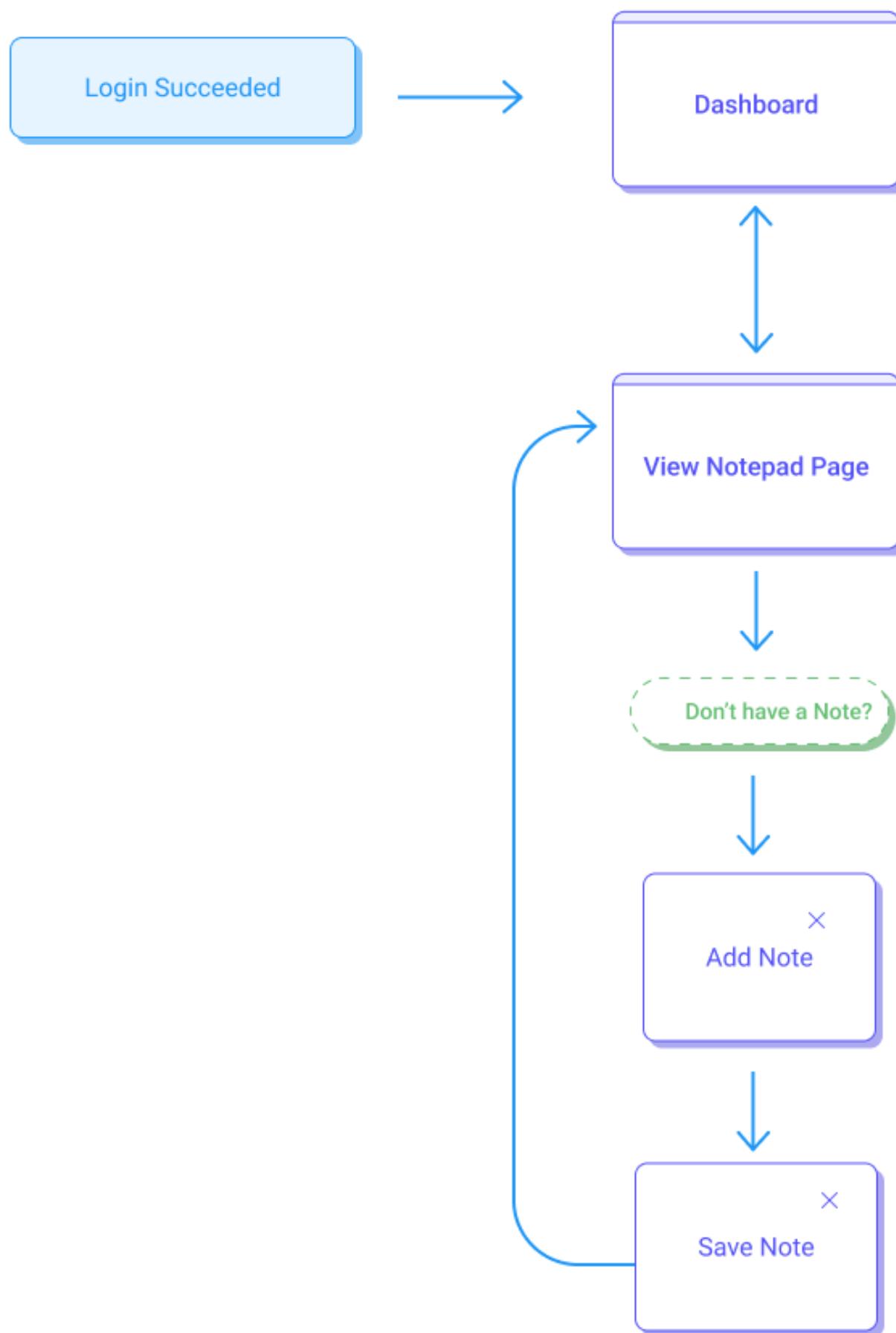
Aws



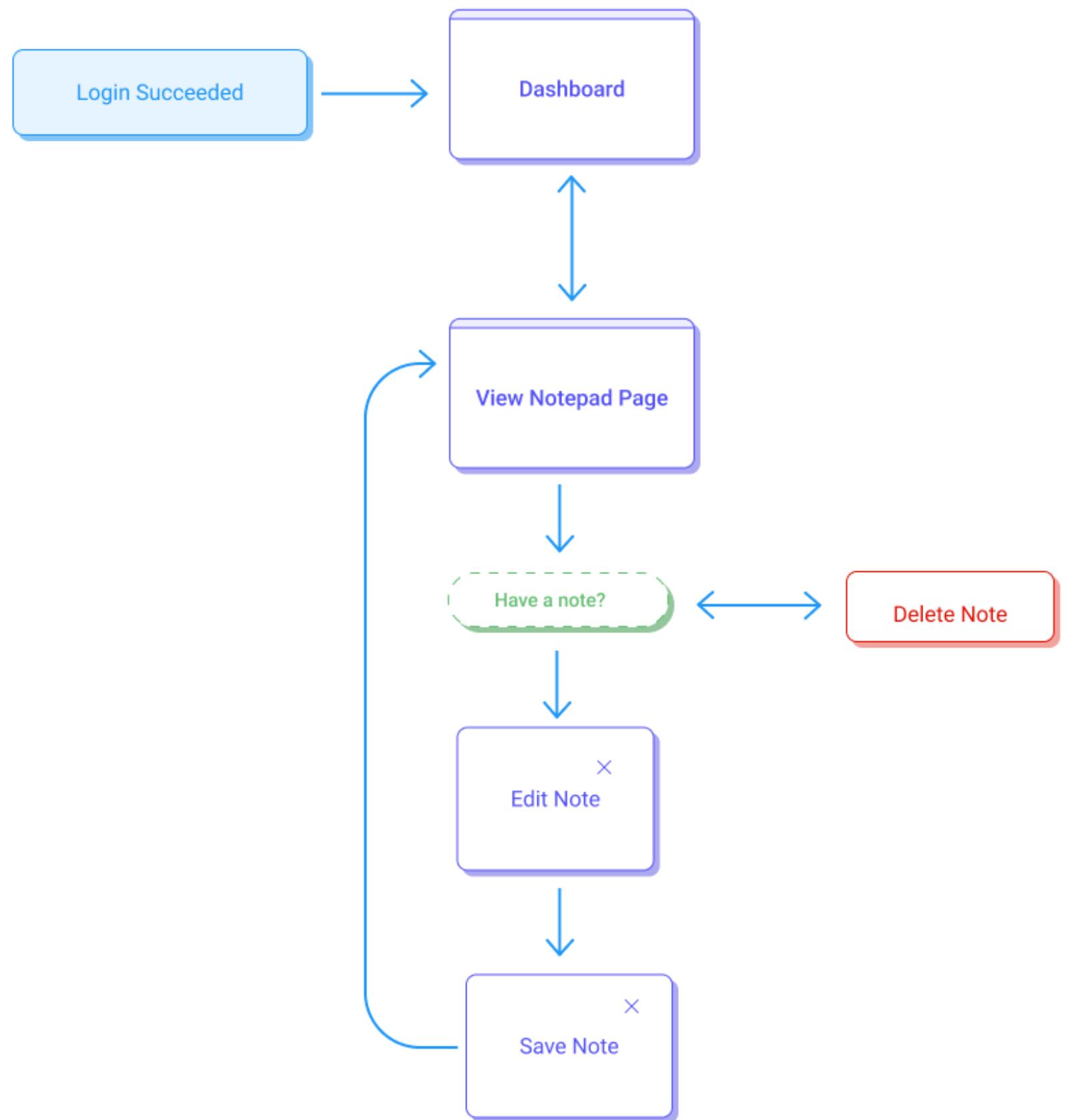
Flow Aplikasi



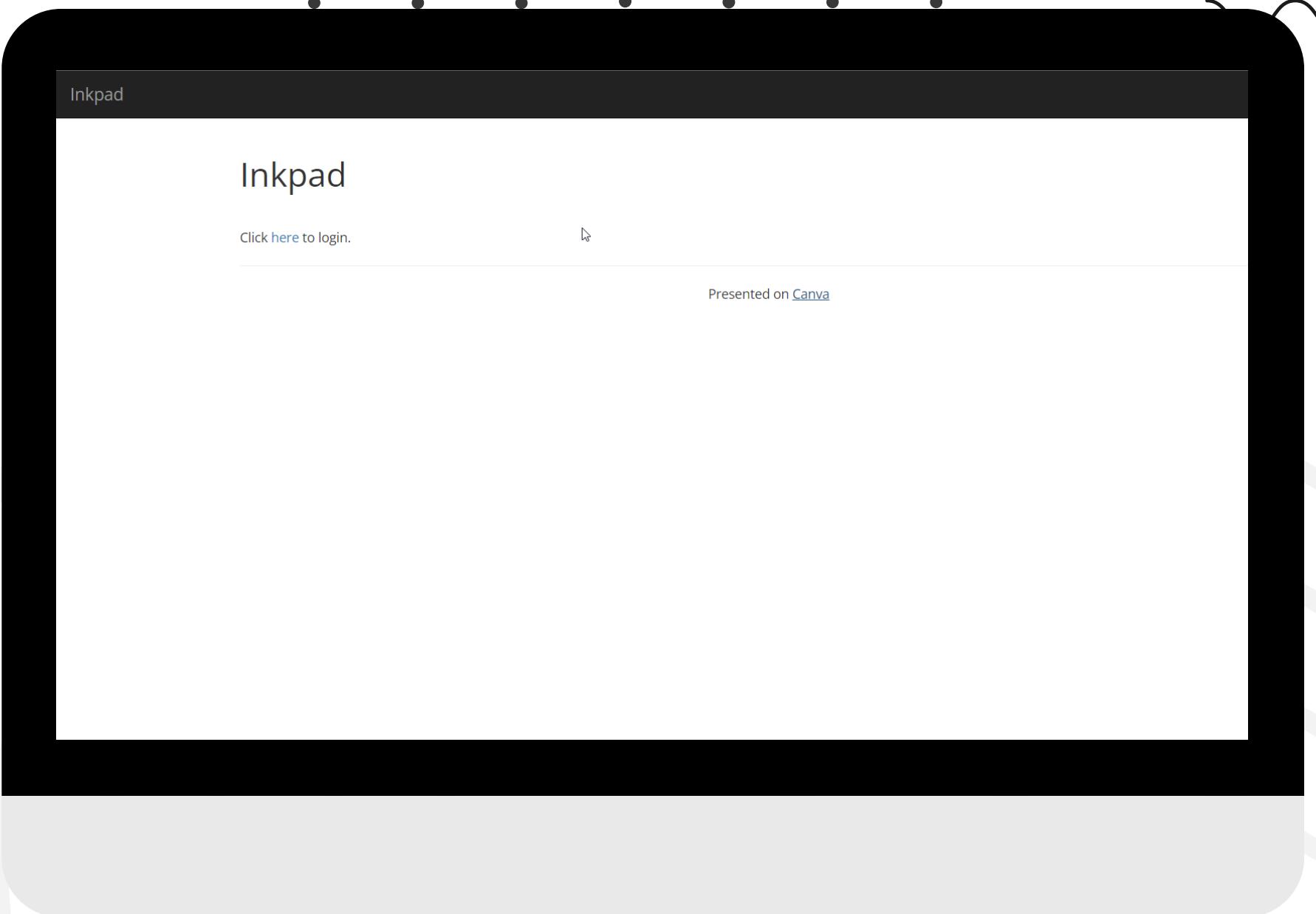
Flow Aplikasi



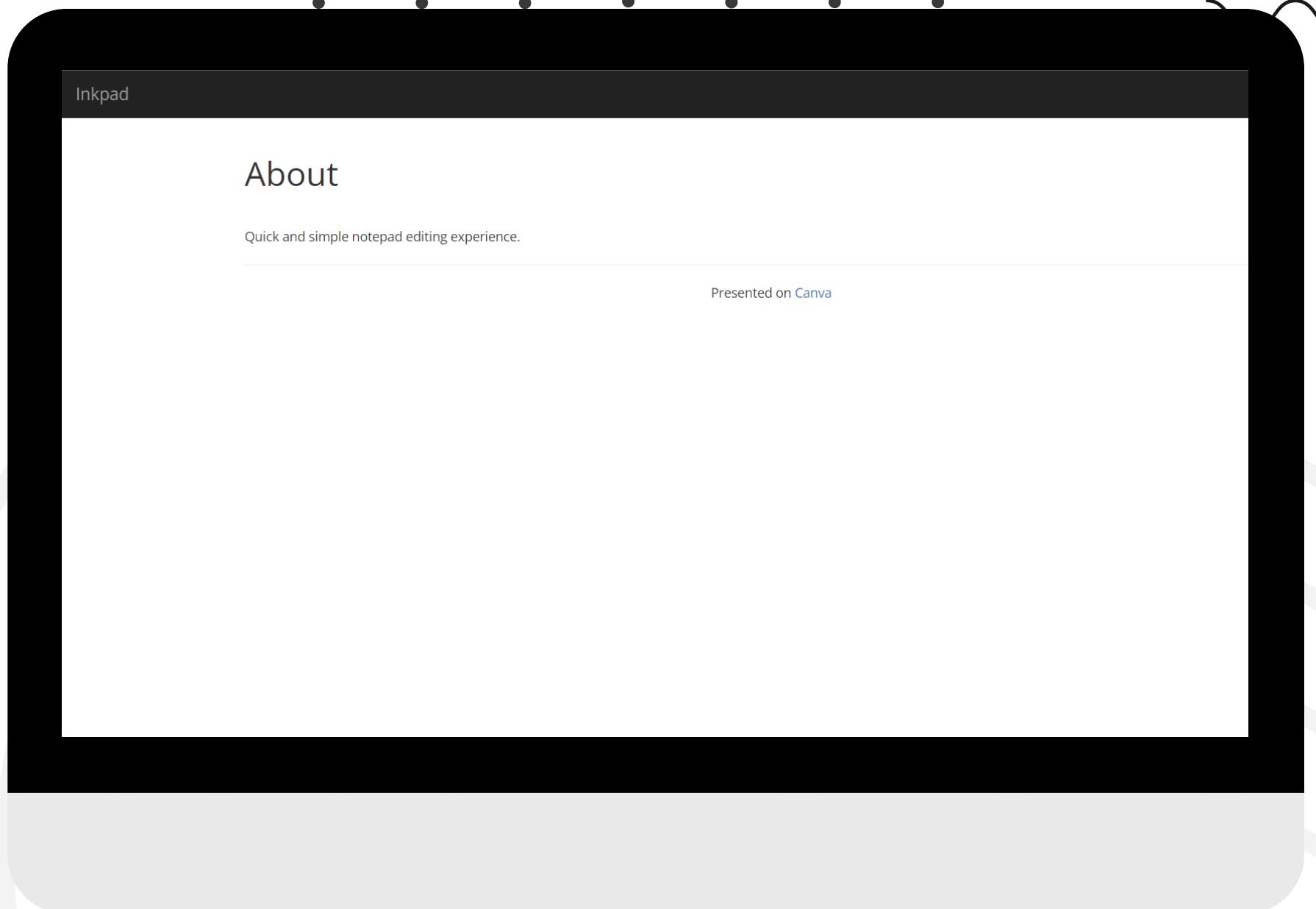
Flow Aplikasi



Landing Page



About Page



Login-Register Page

The image displays two adjacent web browser windows side-by-side, both titled "Inkpad". The left window shows the "Create an Account" page, and the right window shows the "Login" page. Both windows have a yellow header bar with browser controls and a black navigation bar at the top.

Create an Account Page:

- Header: "Create an Account"
- Fields:
 - First Name: "First Name" placeholder
 - Last Name: "Last Name" placeholder
 - Email: "Email" placeholder
 - Password: "Password" placeholder
 - Verify Password: "Verify Password" placeholder
- Buttons:
 - A blue "Create Account" button.

Login Page:

- Header: "Login"
- Fields:
 - Email Address: "Email" placeholder
 - Password: "Password" placeholder
- Buttons:
 - A blue "Login" button.
- Text: "Create a new account."
- Text: "Presented on Canva"

Dashboard

Inkpad

About Logout

Hello, ifa

You have arrived. Click [here](#) to view your notepad.

Presented on Canva

Add & Edit Page

Inkpad

About Logout

Add Note

Note

Type your note here...

✓ Save < Back

Presented on Canva

Inkpad

About Logout

Edit Note

Note

in itaa /> 4,3y2

✓ Save < Back

Presented on Canva

Notepad

View



ifa's Notepad

+ Add Note

Presented on Canvas



ifa's Notepad

+ Add Note

halo semua ini harwinda

 Edit Delete

1504 PML 06/06/2022

introduction

 Edit Delete

104 PM 06/06/2022

introduction

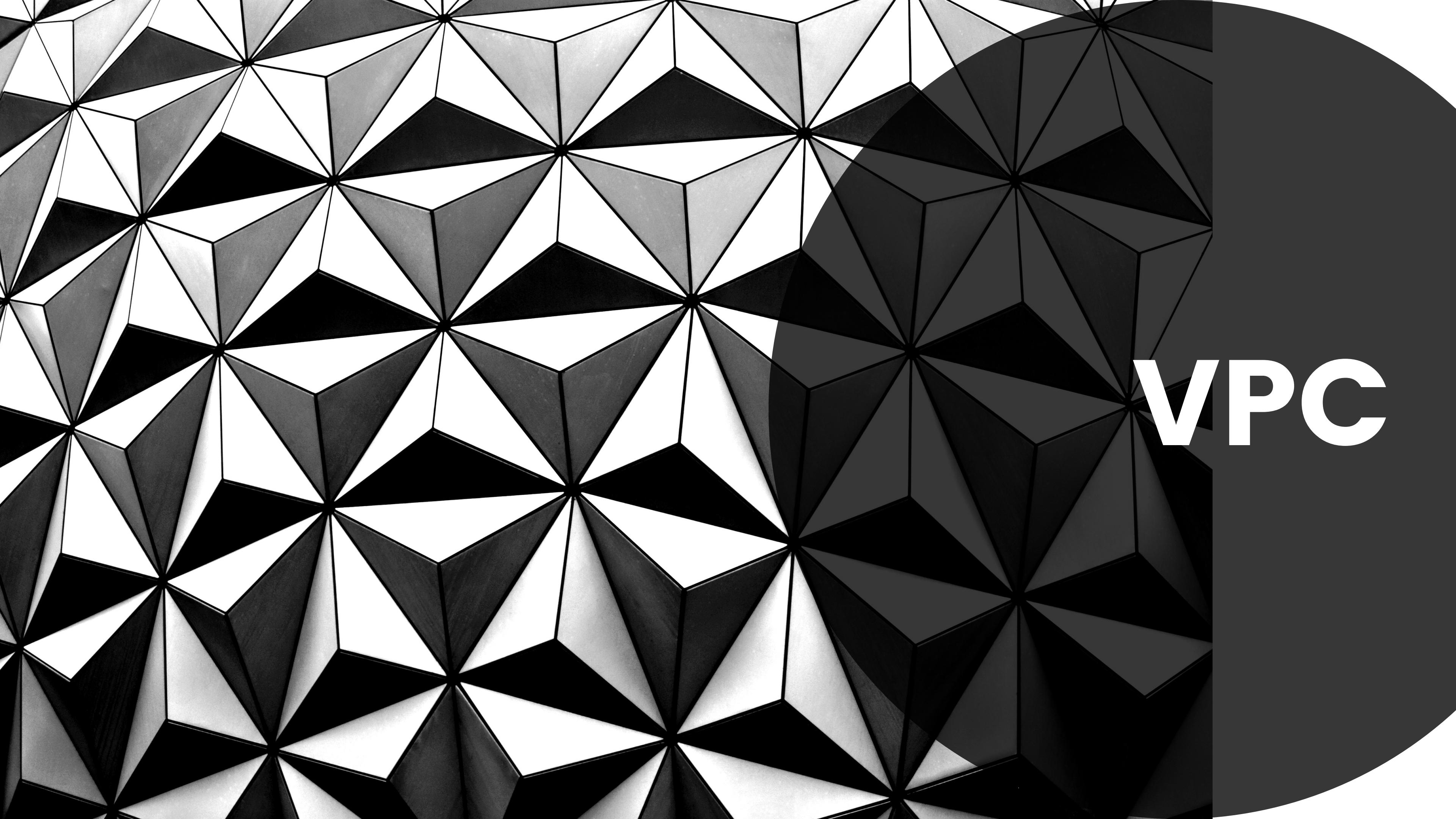
 Edit Delete

10:41 PM 05/06/2022

Presented on Camino

Tahapan



The background features a complex, repeating geometric pattern composed of numerous triangles. The triangles are colored in three shades: black, white, and a medium gray. They are arranged in a way that creates a sense of depth and motion, resembling a stylized molecular or crystal lattice. The pattern covers most of the left side of the image.

VPC

Dashboard

VPC

Your VPCs (1) [Info](#)

Actions [Create VPC](#)

Filter VPCs

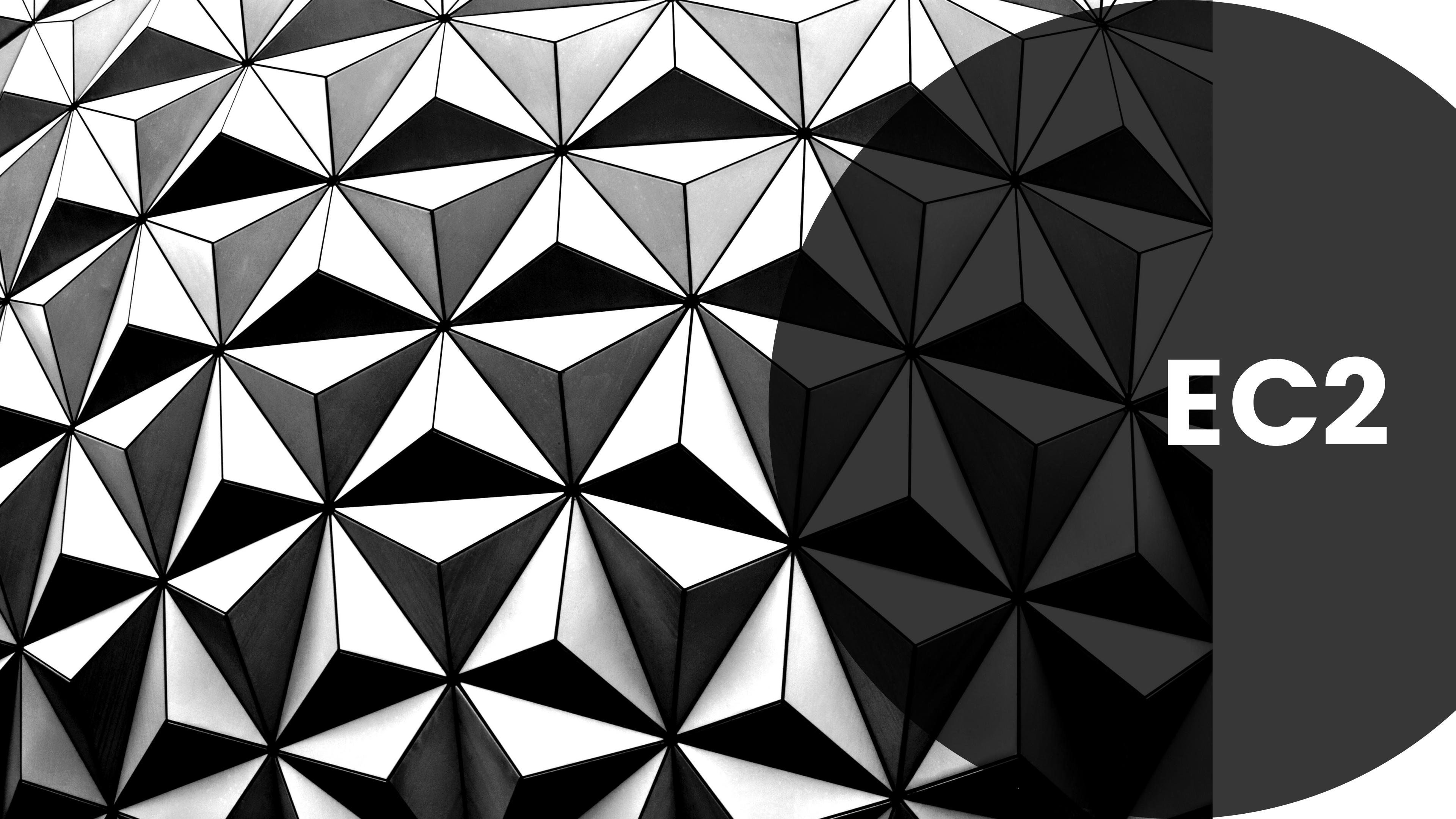
<input type="checkbox"/>	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	-	vpc-07959c26fbea02d8e	Available	172.31.0.0/16	-

VPC > Your VPCs > vpc-07959c26fbea02d8e

[vpc-07959c26fbea02d8e](#) Actions

Details [Info](#)

VPC ID <input type="checkbox"/> vpc-07959c26fbea02d8e	State Available	DNS hostnames Enabled	DNS resolution Enabled
Tenancy Default	DHCP options set dopt-0886764a7f7654c62	Main route table rtb-0721b251351582ae1	Main network ACL acl-029187bac09e0b84f
Default VPC Yes	IPv4 CIDR 172.31.0.0/16	IPv6 pool -	IPv6 CIDR (Network border group) -
Route 53 Resolver DNS Firewall rule groups	Owner ID <input type="checkbox"/> 101295490818		

The background consists of a repeating pattern of black, white, and gray triangles, creating a sense of depth and motion.

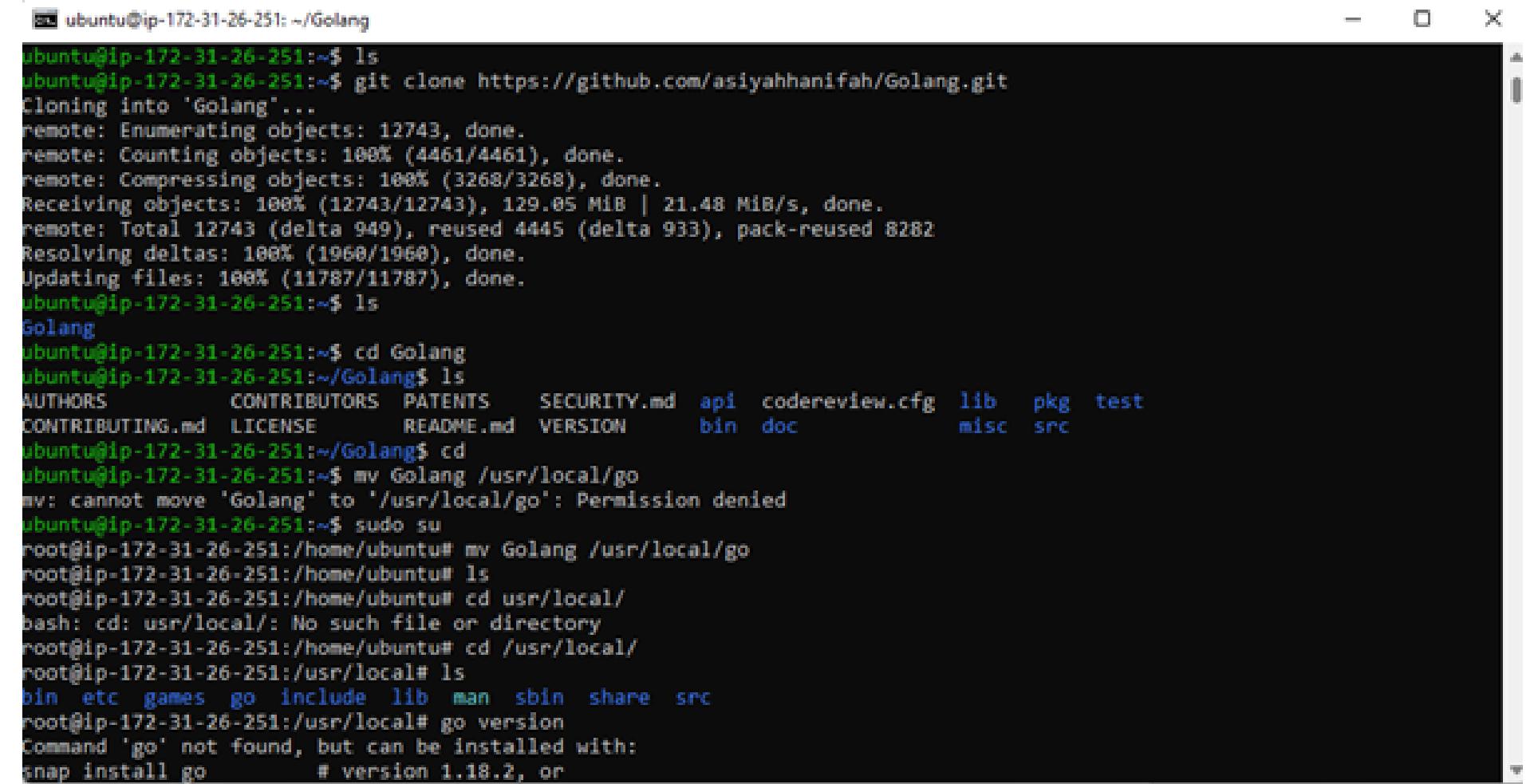
EC2

Dashboard EC2 Instance

Instances (2) Info		C	Connect	Instance state ▾	Actions ▾
<input type="text"/> Search					
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check
<input type="checkbox"/>	goweapp	i-0298d78c386c8c524	Running 	t2.micro	Initializing 
Instance summary for i-0298d78c386c8c524 (goweapp) Info					
Updated less than a minute ago					
Instance ID	i-0298d78c386c8c524 (goweapp)	Public IPv4 address	54.82.168.61 open address 	Private IPv4 addresses	172.31.26.251
IPv6 address	-	Instance state	Running 	Public IPv4 DNS	ec2-54-82-168-61.compute-1.amazonaws.com open address 
Hostname type	IP name: ip-172-31-26-251.ec2.internal	Private IP DNS name (IPv4 only)	ip-172-31-26-251.ec2.internal	Elastic IP addresses	-
Answer private resource DNS name	IPv4 (A)	Instance type	t2.micro	AWS Compute Optimizer finding	 Opt-in to AWS Compute Optimizer for recommendations.
Auto-assigned IP address	54.82.168.61 [Public IP]	VPC ID	vpc-07959c26fbea02d8e 		

Tahapan

- 01 Git clone Golang
<https://github.com/asiyahhanifah/Golang.git>
- 02 Masuk sebagai root
- 03 Move Golang ke /usr/local/go



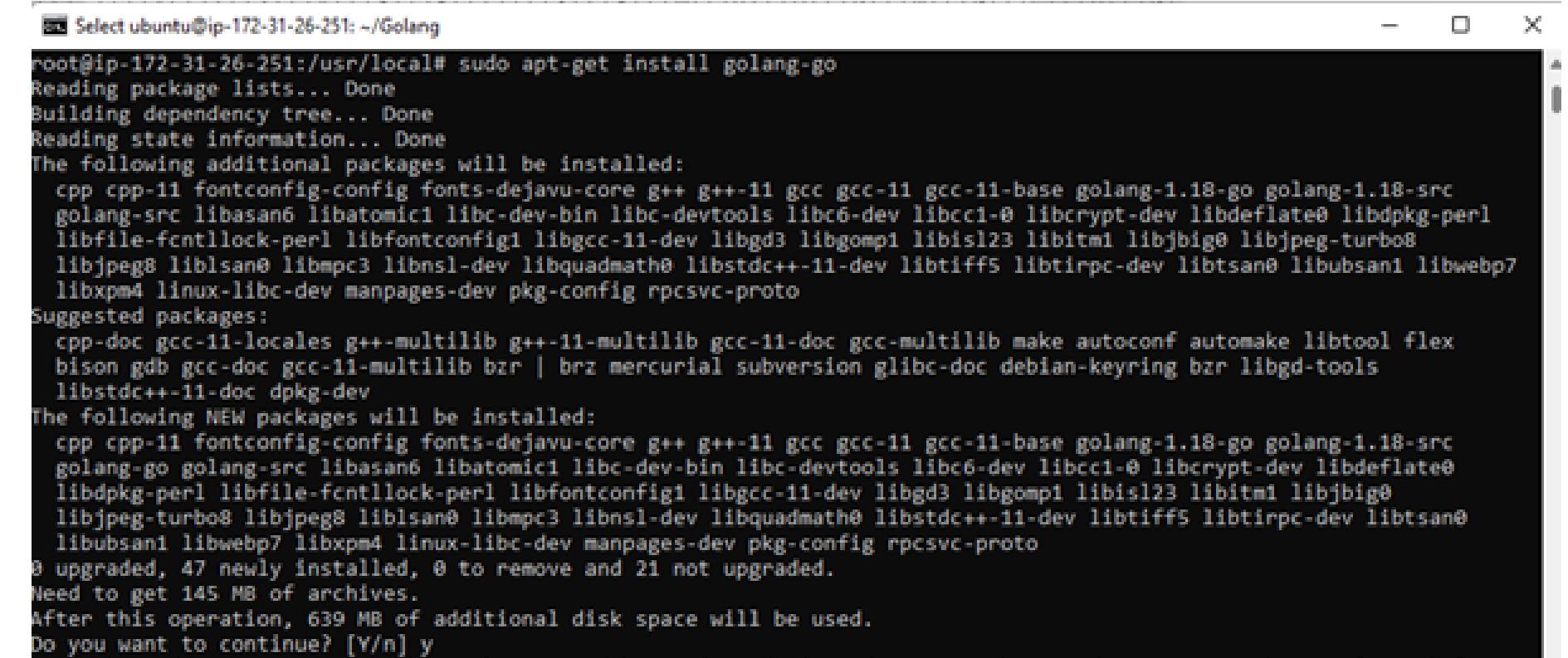
```
ubuntu@ip-172-31-26-251:~/Golang
ubuntu@ip-172-31-26-251:~$ ls
ubuntu@ip-172-31-26-251:~$ git clone https://github.com/asiyahhanifah/Golang.git
Cloning into 'Golang'...
remote: Enumerating objects: 12743, done.
remote: Counting objects: 100% (4461/4461), done.
remote: Compressing objects: 100% (3268/3268), done.
Receiving objects: 100% (12743/12743), 129.05 MiB | 21.48 MiB/s, done.
remote: Total 12743 (delta 949), reused 4445 (delta 933), pack-reused 8282
Resolving deltas: 100% (1968/1968), done.
Updating files: 100% (11787/11787), done.
ubuntu@ip-172-31-26-251:~$ ls
Golang
ubuntu@ip-172-31-26-251:~$ cd Golang
ubuntu@ip-172-31-26-251:~/Golang$ ls
AUTHORS CONTRIBUTORS PATENTS SECURITY.md api codereview.cfg lib pkg test
CONTRIBUTING.md LICENSE README.md VERSION bin doc misc src
ubuntu@ip-172-31-26-251:~/Golang$ cd
ubuntu@ip-172-31-26-251:~$ mv Golang /usr/local/go
mv: cannot move 'Golang' to '/usr/local/go': Permission denied
ubuntu@ip-172-31-26-251:~$ sudo su
root@ip-172-31-26-251:/home/ubuntu# mv Golang /usr/local/go
root@ip-172-31-26-251:/home/ubuntu# ls
root@ip-172-31-26-251:/home/ubuntu# cd usr/local/
bash: cd: usr/local/: No such file or directory
root@ip-172-31-26-251:/home/ubuntu# cd /usr/local/
root@ip-172-31-26-251:/usr/local# ls
bin etc games go include lib man sbin share src
root@ip-172-31-26-251:/usr/local# go version
Command 'go' not found, but can be installed with:
snap install go      # version 1.18.2, or
```

Tahapan

04

Installing Package Golang pada
Ubuntu dengan command

`sudo apt-get install
golang-go`



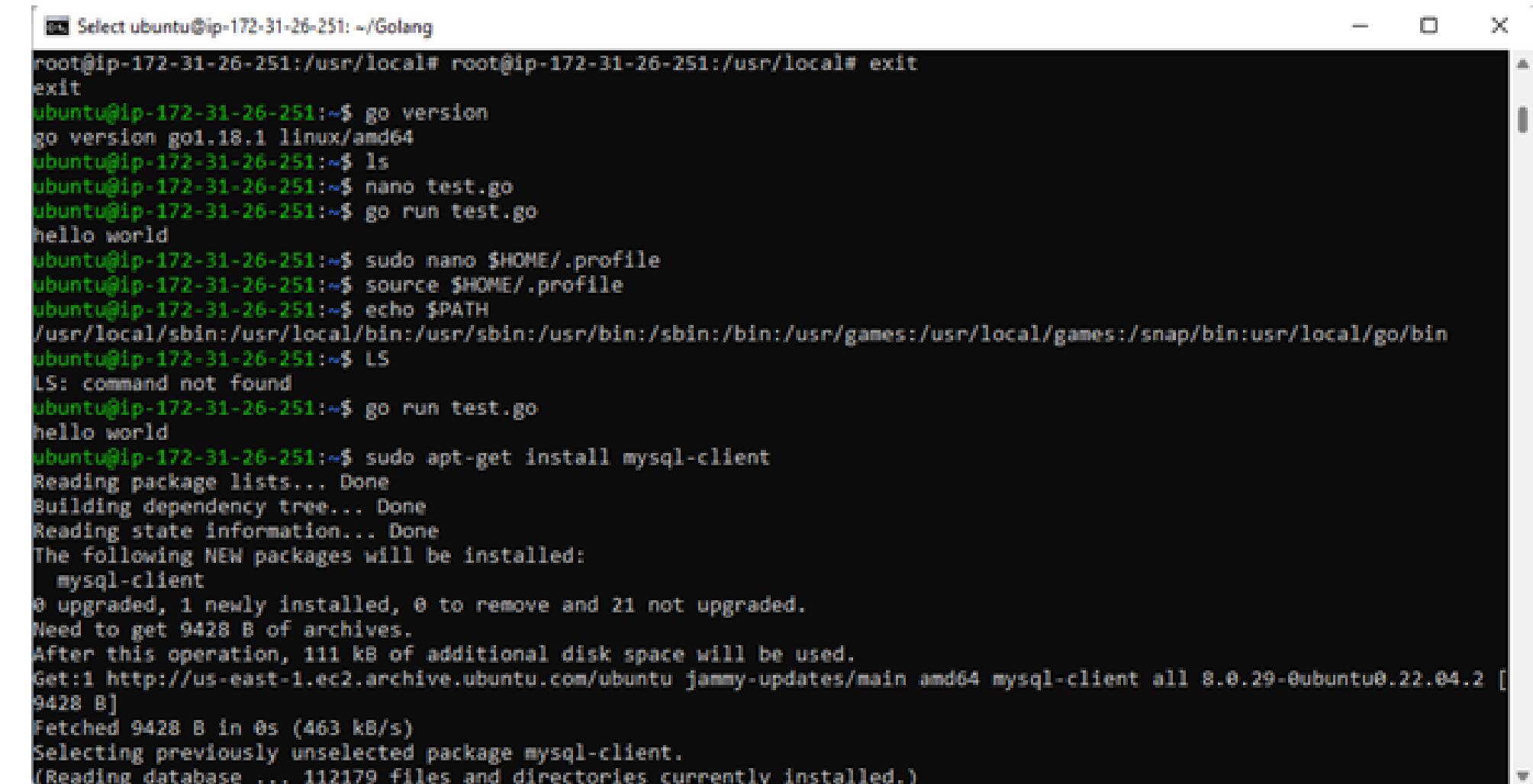
The screenshot shows a terminal window titled "Select ubuntu@ip-172-31-26-251: ~/Golang". The command entered is "sudo apt-get install golang-go". The terminal output details the package installation process, including dependency resolution and the list of packages being installed. It shows that 0 upgraded, 47 newly installed, 0 to remove, and 21 not upgraded. The total disk space required is 639 MB.

```
root@ip-172-31-26-251:/usr/local# sudo apt-get install golang-go
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  cpp cpp-11 fontconfig-config fonts-dejavu-core g++ g++-11 gcc gcc-11-base golang-1.18-go golang-1.18-src
  golang-src libasan6 libatomici libc-dev-bin libc-devtools libc6-dev libcrypt-dev libdeflate0 libdpkg-perl
  libfile-fcntllock-perl libfontconfig1 libgcc-11-dev libgd3 libgomp1 libisl123 libitm1 libjbig0 libjpeg-turbo8
  libjpeg8 liblsan0 libmpc3 libnsl-dev libquadmath0 libstdc++-11-dev libtiff5 libtirpc-dev libtsan0 libubsan1 libwebp7
  libxml2 linux-libc-dev manpages-dev pkg-config rpcsvc-proto
Suggested packages:
  cpp-doc gcc-11-locales g++-multilib g++-11-multilib gcc-multilib make autoconf automake libtool flex
  bison gdb gcc-doc gcc-11-multilib bzr | brz mercurial subversion glibc-doc debian-keyring bzr libgd-tools
  libstdc++-11-doc dpkg-dev
The following NEW packages will be installed:
  cpp cpp-11 fontconfig-config fonts-dejavu-core g++ g++-11 gcc gcc-11-base golang-1.18-go golang-1.18-src
  golang-go golang-src libasan6 libatomici libc-dev-bin libc-devtools libc6-dev libcrypt-dev libdeflate0
  libdpkg-perl libfile-fcntllock-perl libfontconfig1 libgcc-11-dev libgd3 libgomp1 libisl123 libitm1 libjbig0
  libjpeg-turbo8 libjpeg8 liblsan0 libmpc3 libnsl-dev libquadmath0 libstdc++-11-dev libtiff5 libtirpc-dev libtsan0
  libubsan1 libwebp7 libxml2 linux-libc-dev manpages-dev pkg-config rpcsvc-proto
0 upgraded, 47 newly installed, 0 to remove and 21 not upgraded.
Need to get 145 MB of archives.
After this operation, 639 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

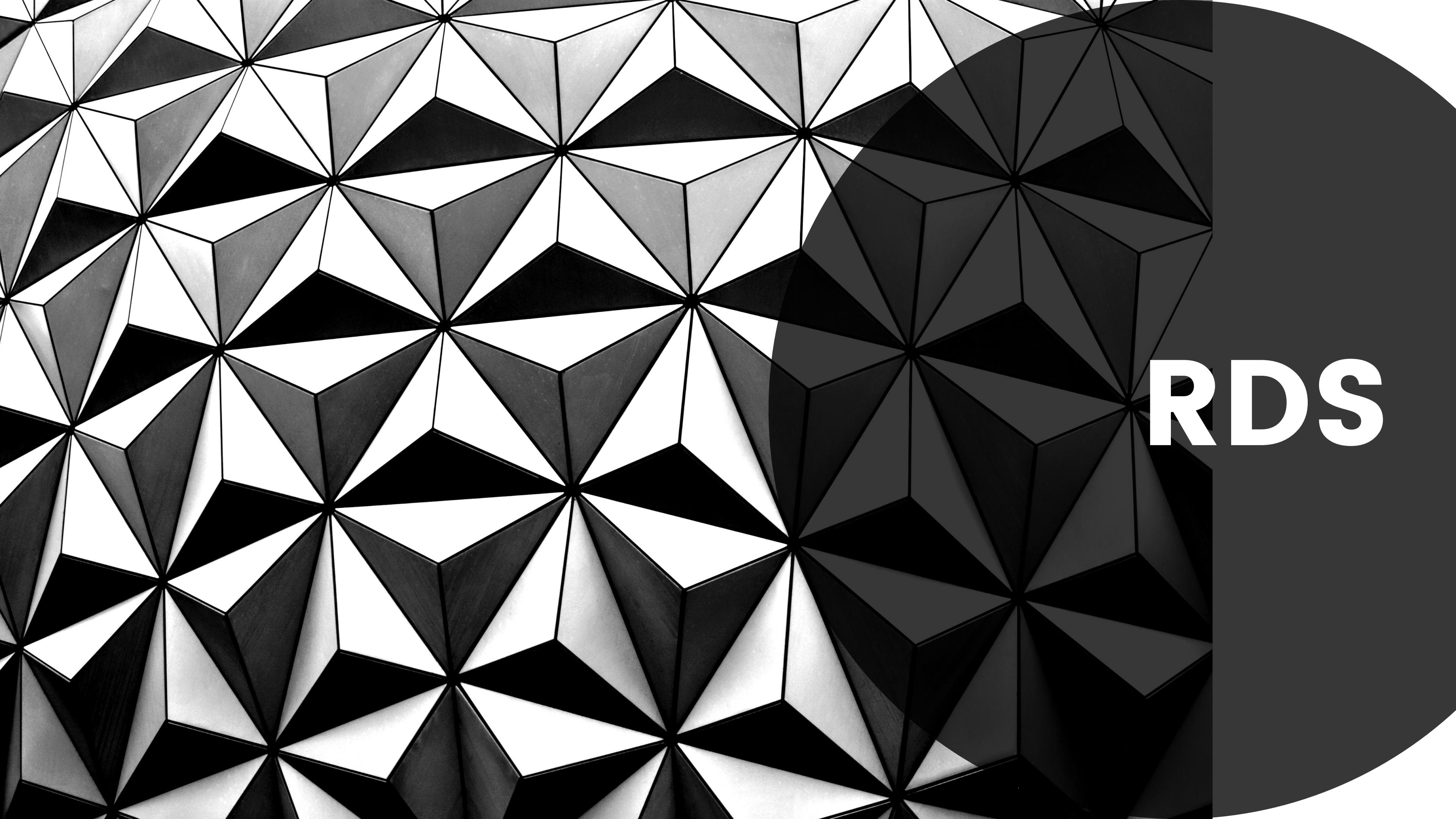
Tahapan

- 05 Cek Versi Golang dengan command
`go version`

- 06 Kemudian menambahkan PATH Golang dengan menambah command berikut di line terakhir pada file `$HOME/.profile`
`export
PATH=$PATH:/usr/local/go/bin`



```
[Select ubuntu@ip-172-31-26-251:~/Golang
root@ip-172-31-26-251:/usr/local# root@ip-172-31-26-251:/usr/local# exit
exit
ubuntu@ip-172-31-26-251:~$ go version
go version go1.18.1 linux/amd64
ubuntu@ip-172-31-26-251:~$ ls
ubuntu@ip-172-31-26-251:~$ nano test.go
ubuntu@ip-172-31-26-251:~$ go run test.go
hello world
ubuntu@ip-172-31-26-251:~$ sudo nano $HOME/.profile
ubuntu@ip-172-31-26-251:~$ source $HOME/.profile
ubuntu@ip-172-31-26-251:~$ echo $PATH
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/usr/games:/usr/local/games:/snap/bin:/usr/local/go/bin
ubuntu@ip-172-31-26-251:~$ LS
LS: command not found
ubuntu@ip-172-31-26-251:~$ go run test.go
hello world
ubuntu@ip-172-31-26-251:~$ sudo apt-get install mysql-client
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  mysql-client
0 upgraded, 1 newly installed, 0 to remove and 21 not upgraded.
Need to get 9428 B of archives.
After this operation, 111 kB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 mysql-client all 8.0.29-0ubuntu0.22.04.2 [9428 B]
Fetched 9428 B in 0s (463 kB/s)
Selecting previously unselected package mysql-client.
(Reading database ... 112179 files and directories currently installed.)
```



RDS

Dashboard

RDS

The screenshot shows the AWS RDS Databases console. At the top, there's a navigation bar with 'RDS > Databases'. Below it is a toolbar with buttons for 'Group resources' (which is selected), 'Modify', 'Actions', 'Restore from S3', and a prominent orange 'Create database' button. There's also a search bar labeled 'Filter by databases' and a pagination element showing page 1 of 1. The main area is a table titled 'Databases' with columns: DB identifier, Role, Engine, Region & AZ, Size, and Status. A single row is visible for the database 'goweapp', which is an MySQL Community instance in the us-east-1d region, db.t3.micro size, and has a green status icon.

Endpoint & port	Networking	Security
Endpoint goweapp.cqnjmpqxohf8.us-east-1.rds.amazonaws.com	Availability Zone us-east-1d	VPC security groups goweapp (sg-0e386005fb13a783d) Active
Port 3306	VPC vpc-07959c26fbea02d8e Subnet group default-vpc-07959c26fbea02d8e Subnets subnet-0771dadad0fb9b7a3 subnet-0701b2a37ef21cd7d subnet-0d65be992e3940a2c subnet-0af5cf78ce5be322a subnet-055bad6df3e13c48a subnet-05fab0204afb24036	Public accessibility No Certificate authority rds-ca-2019 Certificate authority date August 23, 2024, 12:08 (UTC±12:08)

Akses MySQL RDS dari EC2 Instance

01 Lakukan instalasi mySQL

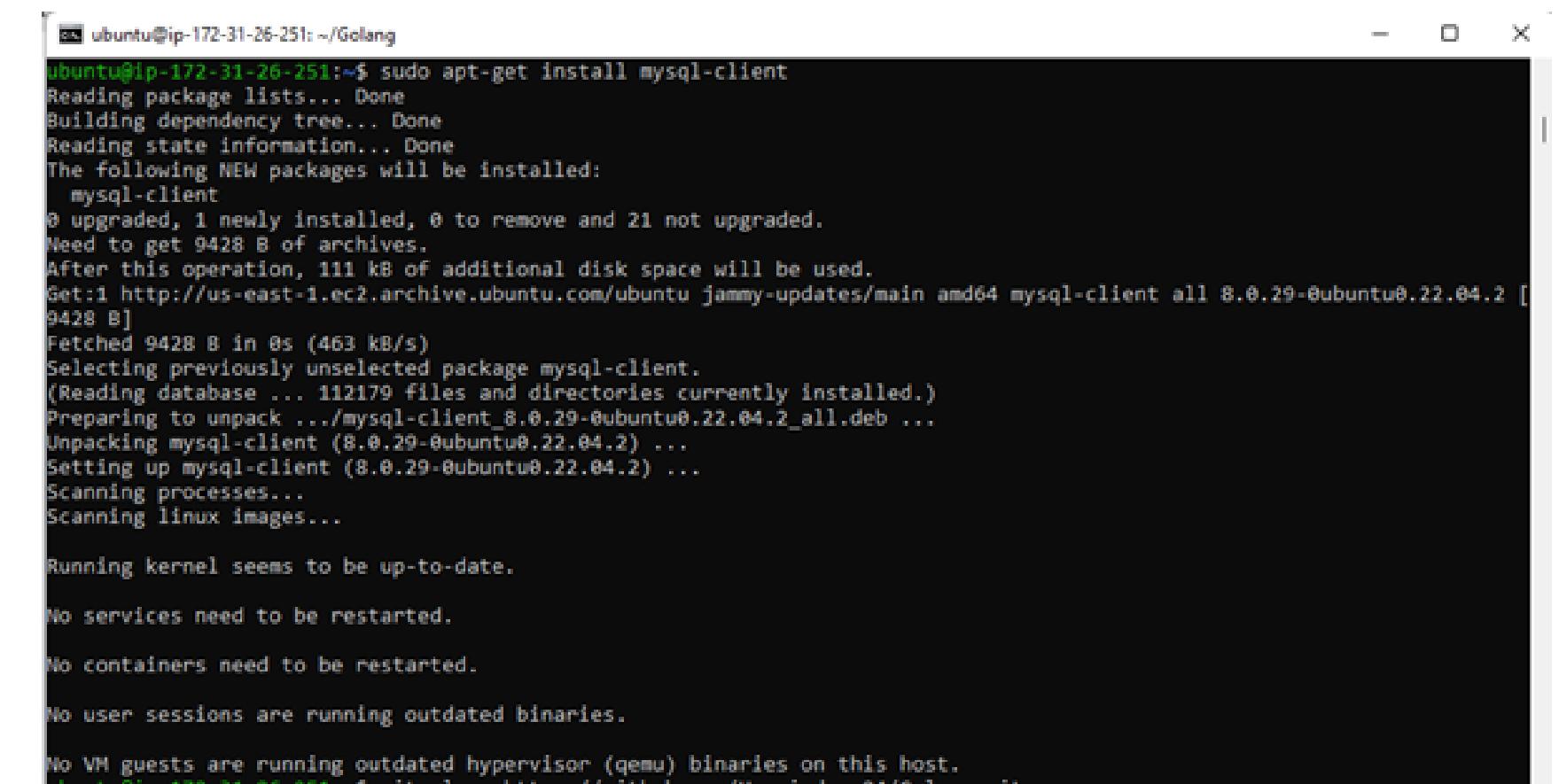
```
sudo apt-get update  
sudo apt-get install mysql-client
```

02 Git clone Website ke Instance EC2

<https://github.com/Herwindams24/Golang.git>

03 Kemudian gunakan perintah berikut

```
mysql -h gowebapp.cqn1mpqxohf8.us-  
east-1.rds.amazonaws.com -u root -p
```



```
ubuntu@ip-172-31-26-251:~/Golang$ sudo apt-get install mysql-client  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following NEW packages will be installed:  
  mysql-client  
0 upgraded, 1 newly installed, 0 to remove and 21 not upgraded.  
Need to get 9428 B of archives.  
After this operation, 111 kB of additional disk space will be used.  
Get:1 http://us-east-1.archive.ubuntu.com/ubuntu jammy-updates/main amd64 mysql-client all 8.0.29-0ubuntu0.22.04.2 [9428 B]  
Fetched 9428 B in 0s (463 kB/s)  
Selecting previously unselected package mysql-client.  
(Reading database ... 112179 files and directories currently installed.)  
Preparing to unpack .../mysql-client_8.0.29-0ubuntu0.22.04.2_all.deb ...  
Unpacking mysql-client (8.0.29-0ubuntu0.22.04.2) ...  
Setting up mysql-client (8.0.29-0ubuntu0.22.04.2) ...  
Scanning processes...  
Scanning linux images...  
  
Running kernel seems to be up-to-date.  
  
No services need to be restarted.  
  
No containers need to be restarted.  
  
No user sessions are running outdated binaries.  
  
No VM guests are running outdated hypervisor (qemu) binaries on this host.
```

Lihat dan Buat Database Baru

MySQL RDS

01 Lakukan instalasi mySQL

```
show databases;  
create database gowebapp;
```

02 Buat Table Note

```
CREATE TABLE `note` (  
    `id` int(10) UNSIGNED NOT NULL,  
    `content` text NOT NULL,  
    `user_id` int(10) UNSIGNED NOT NULL,  
    `created_at` timestamp NOT NULL DEFAULT current_timestamp(),  
    `updated_at` timestamp NOT NULL DEFAULT current_timestamp() ON UPDATE current_timestamp(),  
    `deleted` tinyint(1) UNSIGNED NOT NULL DEFAULT 0  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

Lihat dan Buat Database Baru

MySQL RDS

03 Buat Table User

```
CREATE TABLE `user` (
  `id` int(10) UNSIGNED NOT NULL,
  `first_name` varchar(50) NOT NULL,
  `last_name` varchar(50) NOT NULL,
  `email` varchar(100) NOT NULL,
  `password` char(60) NOT NULL,
  `status_id` tinyint(1) UNSIGNED NOT NULL DEFAULT 1,
  `created_at` timestamp NOT NULL DEFAULT current_timestamp(),
  `updated_at` timestamp NOT NULL DEFAULT current_timestamp() ON UPDATE current_timestamp(),
  `deleted` tinyint(1) UNSIGNED NOT NULL DEFAULT 0
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

Lihat dan Buat Database Baru

MySQL RDS

04 Buat Table User Status

```
CREATE TABLE `user_status` (
  `id` tinyint(1) NOT NULL,
  `status` varchar(25) NOT NULL,
  `created_at` timestamp NOT NULL DEFAULT current_timestamp(),
  `updated_at` timestamp NOT NULL DEFAULT current_timestamp(),
  `deleted` tinyint(1) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;
```

Lihat dan Buat Database Baru

MySQL RDS

05 Alter Table

```
ALTER TABLE `note`
    ADD PRIMARY KEY (`id`),
    ADD KEY `f_note_user`(`user_id`);

ALTER TABLE `user`
    MODIFY `id` int(10) UNSIGNED NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=2;

ALTER TABLE `user_status`
    MODIFY `id` tinyint(1) NOT NULL AUTO_INCREMENT;

ALTER TABLE `note`
    ADD CONSTRAINT `f_note_user` FOREIGN KEY (`user_id`) REFERENCES `user` (`id`) ON DELETE CASCADE ON UPDATE CASCADE;

COMMIT;
```

Hubungkan Golang dan Database MySQL pada RDS

05 Mengatur koneksi website golang dan database yang dibuat dengan RDnya

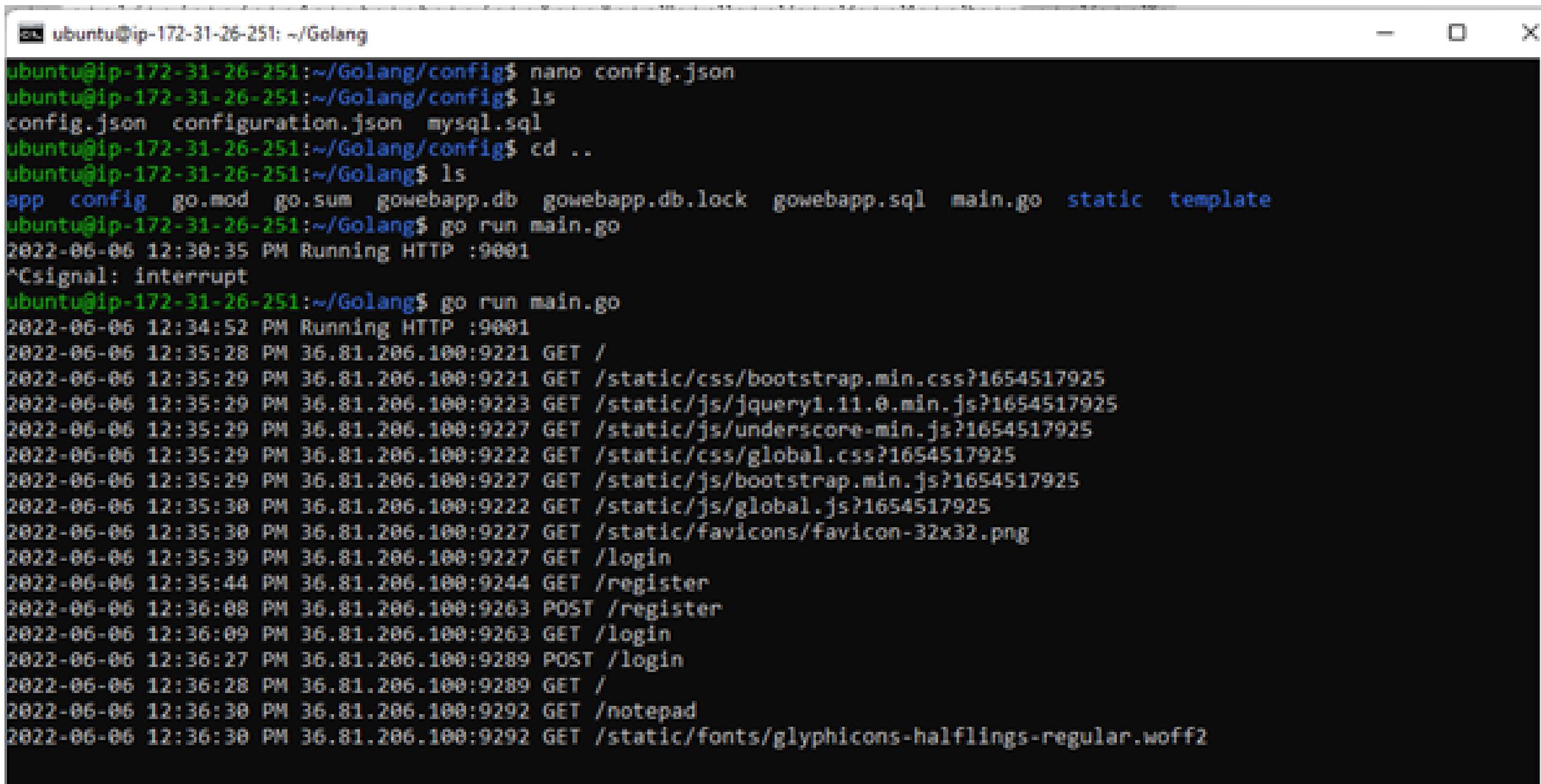
```
"Database": {  
    "Type": "MySQL",  
    "MongoDB": {  
        "URL": "gowebapp.cqn1mpqxohf8.us-east-1.rds.amazonaws.com:27017",  
        "Database": "gowebapp"  
    },  
    "MySQL": {  
        "Username": "root",  
        "Password": "12345678",  
        "Name": "gowebapp",  
        "Hostname": "gowebapp.cqn1mpqxohf8.us-east-1.rds.amazonaws.com",  
        "Port": 3306,  
        "HTTPPort": 9001,  
    },  
}
```



A large, abstract geometric pattern occupies the left two-thirds of the frame, composed of numerous black, white, and gray triangles of varying sizes and orientations. The right third of the image is a solid dark gray rectangle. Overlaid on this dark gray area is the text "Running Program" in a bold, white, sans-serif font.

Running
Program

Menjalankan Website Inkpad dengan golang



A terminal window titled "ubuntu@ip-172-31-26-251: ~/Golang" displays the execution of a Go application. The session starts with navigating to the configuration directory, listing files, changing to the parent directory, and listing files again. It then runs the application with "go run main.go". The application starts serving HTTP on port 9001 at 2022-06-06 12:38:35 PM. A SIGINT signal is received, causing the application to stop. It then restarts and continues to serve requests. The log shows various static file requests like CSS and JS files, along with login and register POST requests.

```
ubuntu@ip-172-31-26-251:~/Golang/config$ nano config.json
ubuntu@ip-172-31-26-251:~/Golang/config$ ls
config.json configuration.json mysql.sql
ubuntu@ip-172-31-26-251:~/Golang/config$ cd ..
ubuntu@ip-172-31-26-251:~/Golang$ ls
app config go.mod go.sum gowebapp.db gowebapp.db.lock gowebapp.sql main.go static template
ubuntu@ip-172-31-26-251:~/Golang$ go run main.go
2022-06-06 12:38:35 PM Running HTTP :9001
^Csignal: interrupt
ubuntu@ip-172-31-26-251:~/Golang$ go run main.go
2022-06-06 12:34:52 PM Running HTTP :9001
2022-06-06 12:35:28 PM 36.81.206.100:9221 GET /
2022-06-06 12:35:29 PM 36.81.206.100:9221 GET /static/css/bootstrap.min.css?1654517925
2022-06-06 12:35:29 PM 36.81.206.100:9223 GET /static/js/jquery1.11.0.min.js?1654517925
2022-06-06 12:35:29 PM 36.81.206.100:9227 GET /static/js/underscore-min.js?1654517925
2022-06-06 12:35:29 PM 36.81.206.100:9222 GET /static/css/global.css?1654517925
2022-06-06 12:35:29 PM 36.81.206.100:9227 GET /static/js/bootstrap.min.js?1654517925
2022-06-06 12:35:30 PM 36.81.206.100:9222 GET /static/js/global.js?1654517925
2022-06-06 12:35:30 PM 36.81.206.100:9227 GET /static/favicons/favicon-32x32.png
2022-06-06 12:35:39 PM 36.81.206.100:9227 GET /login
2022-06-06 12:35:44 PM 36.81.206.100:9244 GET /register
2022-06-06 12:36:08 PM 36.81.206.100:9263 POST /register
2022-06-06 12:36:09 PM 36.81.206.100:9263 GET /login
2022-06-06 12:36:27 PM 36.81.206.100:9289 POST /login
2022-06-06 12:36:28 PM 36.81.206.100:9289 GET /
2022-06-06 12:36:30 PM 36.81.206.100:9292 GET /notepad
2022-06-06 12:36:30 PM 36.81.206.100:9292 GET /static/fonts/glyphicons-halflings-regular.woff2
```

Thanks You