LKPD Cloud - AWS ELB & ASG

Lembar Kerja Peserta Didik

NILAI

Nama : Muhamad Dzakwan Ar Efendi

NIS : 12209161 Kelas : TJKT XII-3

Judul Materi : Pengenalan AWS ELB & Auto Scaling

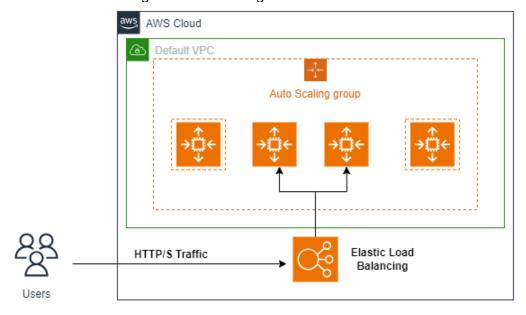
Petunjuk Kerja:

- Menyiapkan Software aplikasi pendukung
- Menyiapkan Laptop / PC
- Menyiapkan Koneksi Internet
- Menyiapkan peralatan Praktek
- Menyiapkan Modul Panduan Kerja (Handout)

Langkah Kerja

Skenario / Soal

Anda adalah seorang Cloud Engineer memiliki tanggung jawab untuk merancang, mengelola, dan mengoptimalkan infrastruktur komputasi awan (cloud computing) organisasi. Tugas anda mencakup berbagai aspek yang terkait dengan cloud, termasuk penerapan, pengelolaan, keamanan, dan skalabilitas. Saat ini anda ditugaskan untuk meningkatkan ketersediaan, keandalan, dan ketahanan infrastruktur cloud dengan memanfaatkan layanan AWS Elastic Load Balancing dan Auto Scaling.



Ketentuan konfigurasi:

Security Group Firewall

Name : SG-EC2-and-ELB

Inbound Rules : Open port SSH, HTTP, & HTTPS from Anywhere (Ipv4).

- Tambahkan nama masing-masing disetiap service yang dibuat (contoh : EC2-Adam, ELB-Adam, ASG-Adam, dan lain-lain).

Konfigurasi EC2 Instance

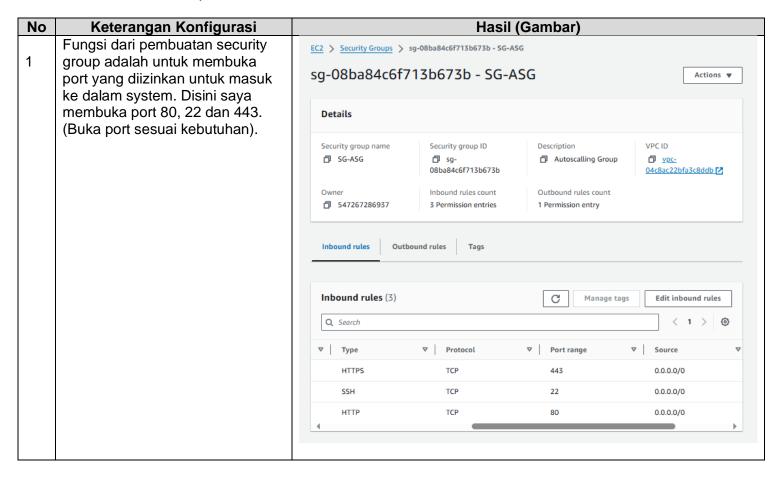
OS/AMI: Ubuntu 22.04

Key-pair : Vockey Instance type : t2.micro

Dokumentasi Pengerjaan

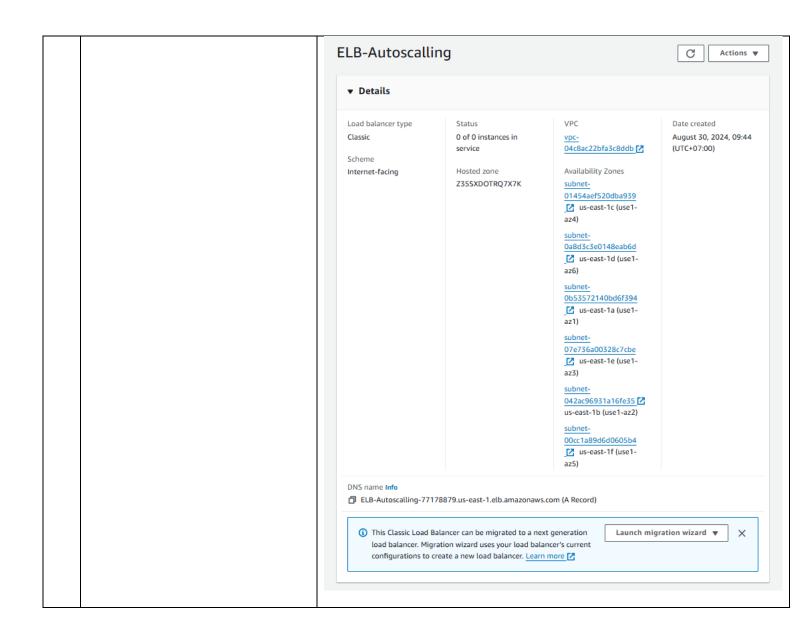
1. Pengenalan AWS Elastic Load Balancing

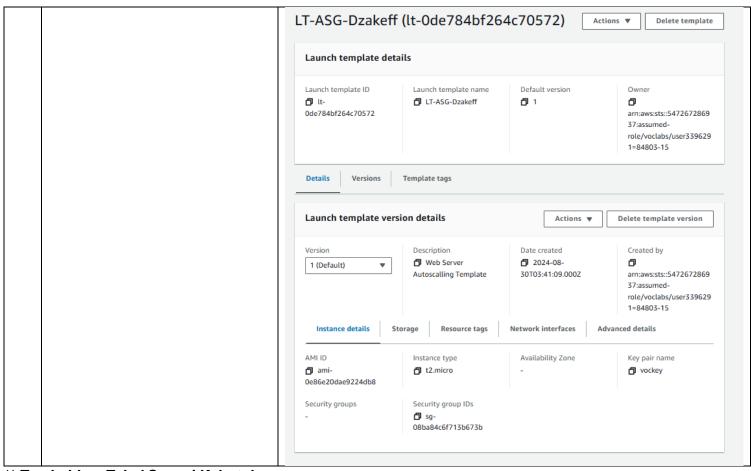
** Panduan tersedia pada file PDF 1-Introduction to AWS ELB atau bisa cari di Internet



Fungsi dari pembuatan target TG-ASG-DZAKEFF Actions ▼ 2 groups adalah kelompok logis dari target yang menerima lalu lintas dari load balancer. **Details** arn:aws:elasticloadbalancing:us-east-1:547267286937:targetgroup/TG-ASG-DZAKEFF/d2a5e94eef04199d Protocol : Port Protocol version vpc-04c8ac22bfa3c8ddb 🛂 HTTP: 80 Instance IP address type Load balancer None associated **⊘** 0 ⊗ 0 ⊙ 0 4 0 \bigcirc 0 Total targets Healthy Unhealthy Unused Initial Draining 0 Anomalous Summary 3 Ringkasan infromasi target Review and confirm your configurations. Estimate cost groups yang sudah dibuat. Basic configuration Edit Network mapping Edit Security groups Edit Listeners and routing Edit ELB-Autoscalling VPC vpc-04c8ac22bfa3c8ddb SG-ASG HTTP:80 ELB dan Autoscalling bisa sg-08ba84c6f713b673b Internet-facing dibilang fitur yang tak dapat di subnet-0b53572140bd6f394 🔀 pisahkan. Dimana ELB yang us-east-1b mengatur beban agar merata dan subnet-01454aef520dba939 🔀

• us-east-1d Autoscalling untuk menambah subnet-0a8d3c3e0148eab6d instance baru untuk meringankan us-east-1e subnet-07e736a00328c7cbe beban instance utama. subnet-00cc1a89d6d0605b4 Health checks Edit Instances Edit Tags Edit HTTP:80/index.html No instances added yet Cross-zone load balancing: Timeout: 2 seconds · Connection draining: On Interval: 5 seconds Unhealthy threshold: 2 timeout: 300 seconds . Unhealthy threshold: 10

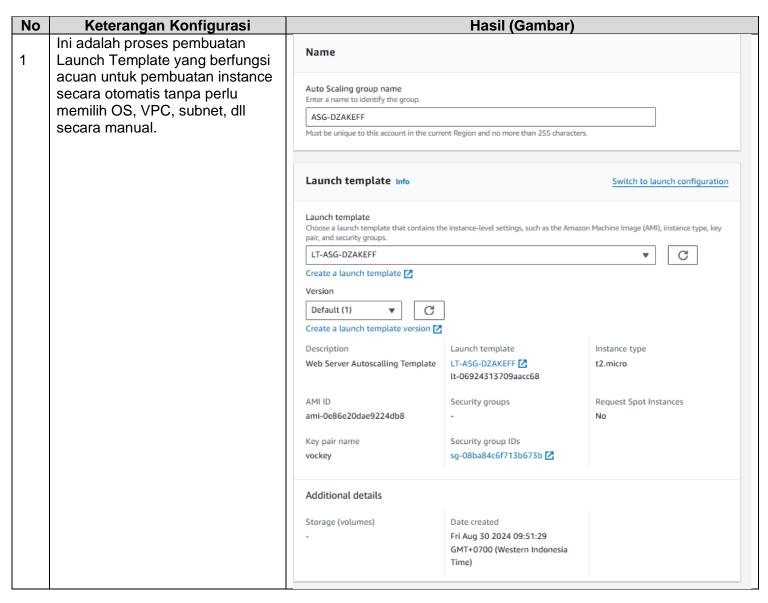


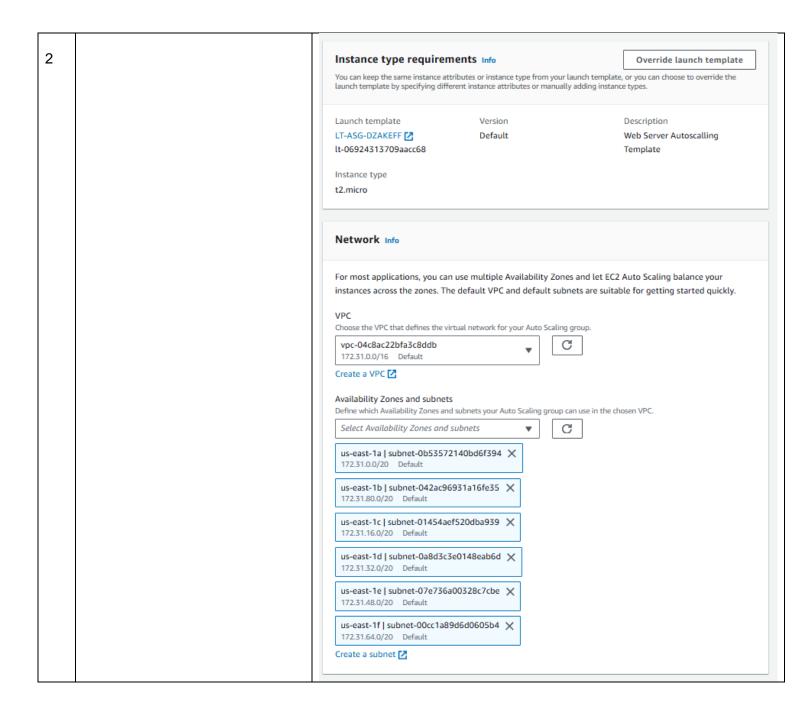


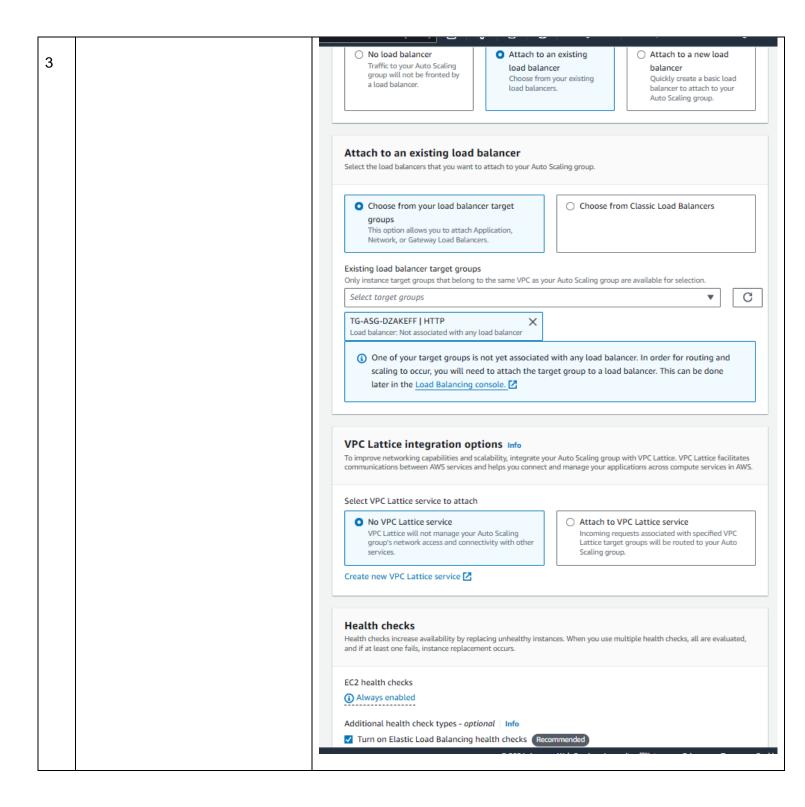
^{**} Tambahkan Tabel Sesuai Kebutuhan

2. Pengenalan AWS Auto Scaling

** Panduan tersedia pada file PDF 3-Tutorial Konfig Autoscaling atau bisa cari di Internet

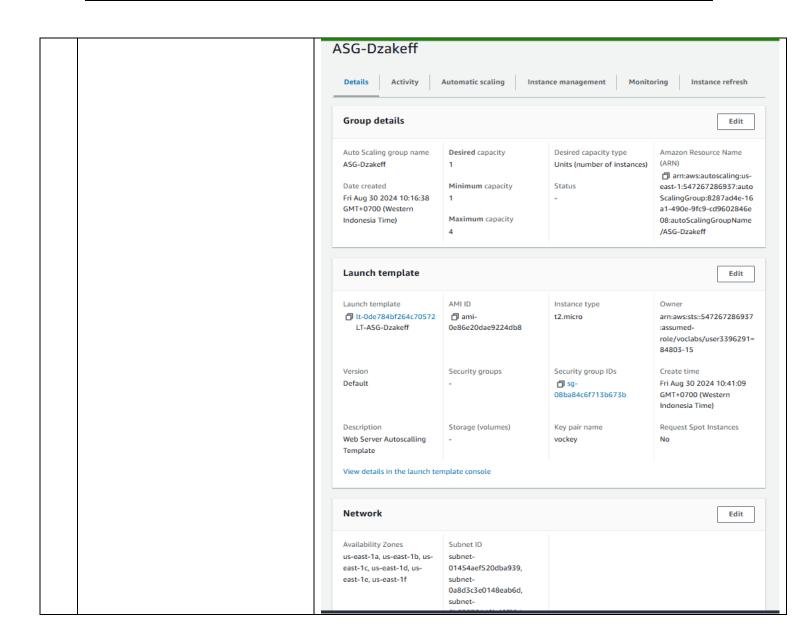






YAYASAN PRAWITAMA SMK WIKRAMA BOGOR Jl. Raya Wangun Kel. Sindangsari Kota Bogor Telp. 0251-8242411, email: prohumasi@smkwikrama.net, website: www.smkwikrama.net

Disini menentukan minimal pembuatan instance dan maksimal pembuatan instance.	Group size Specify the size of the Auto Scaling group by minimum and maximum scaling limits.	changing the desired capacity. You can also specify
	Desired capacity type Choose the unit of measurement for the desir supported for mixed instances groups configu	red capacity value. vCPUs and Memory(GiB) are only ared with a set of instance attributes.
	Units (number of instances)	w.
	Desired capacity Specify your group size. 1 Scaling limits Set limits on how much your desired capacity	can be increased or decreased.
	Min desired capacity	Max desired capacity
	1	4
	Equal or less than desired capacity	Equal or greater than desired capacity
		Cancel Update

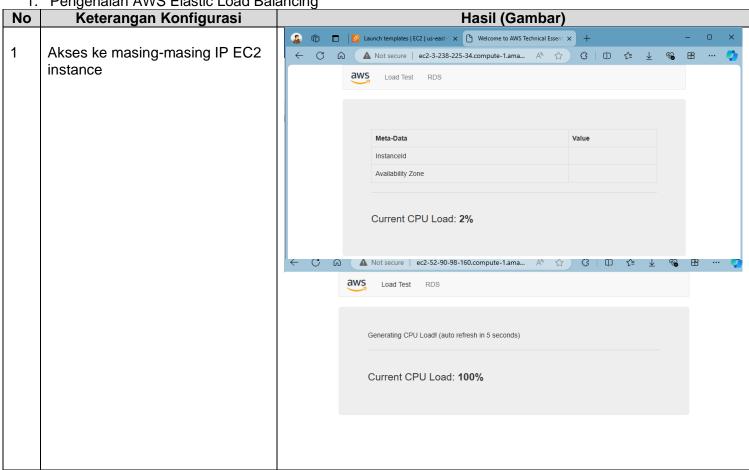


Instances (1/8 Last update less than a minute ag	d C	Connect Instance	state Action	Launch i	instances V	
Q Find Instance	by attrib	ute or tag (case-sensitive)		All states ▼	< 1 >	0
■ Name 🖊	∇	Instance ID	Instance state	Instance type	▼ Status check	Alarm
ASG-DZAK	/	i-008dc43af8c359160	○ Terminated ④ ○	t2.micro	-	View a
☐ ASG-DZAK	EFF	i-07c4ae7b606266200	○ Terminated ② ②	t2.micro	-	View a
ASG-DZAK	EFF	i-0d46d1495ed7f99dc	○ Terminated ② ②	t2.micro	-	View a
ASG-DZAK	EFF	i-083282d879553ba51	⊝ Terminated ④ Q	t2.micro	-	View a
ASG-DZAK	EFF	i-09610086c3e2ddd5f	□ Terminated ② ○	t2.micro	-	View a
ASG-DZAK	EFF	i-02cf9b4f7839fa1fc	○ Terminated ② ②	t2.micro	-	View a
ASG-DZAK	EFF	i-0780ed2bae4864e32	○ Terminated ② ②	t2.micro	-	View a
✓ ASG-Dzak	eff	i-0d9cc57a65abda748	⊘ Running ② ②	t2.micro	Initializing	View a
1						F

^{**} Tambahkan Tabel Sesuai Kebutuhan.

Uji Coba

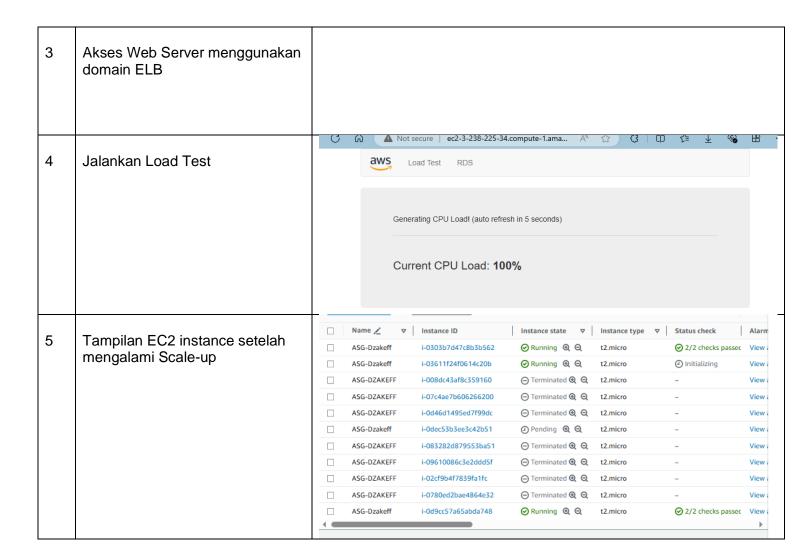
Pengenalan AWS Elastic Load Balancing

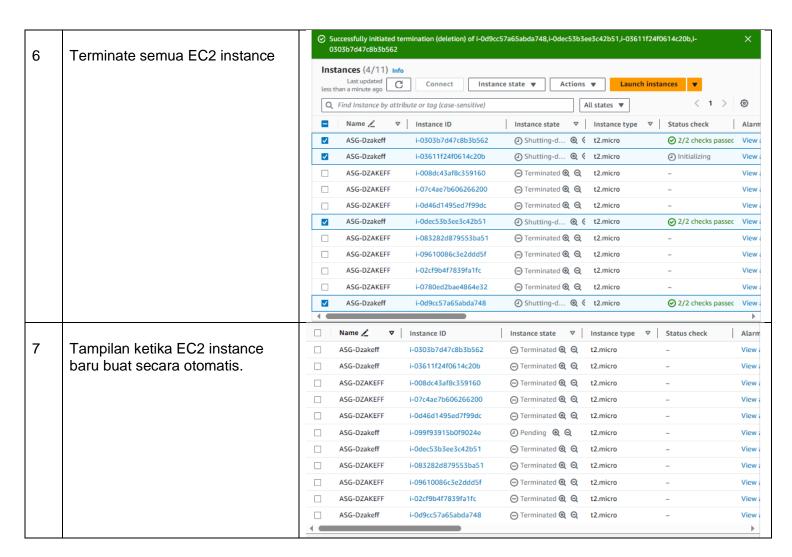


2	Akses Web Server menggunakan domain ELB	
	**Sertakan 2 screenshoot, bukti bahwa ec2 yang diakses berbeda.	
3	Akses Web Server menggunakan domain ELB dengan tambahan / image	
	http://domain-elb/image	

2. Pengenalan AWS Auto Scaling

∠. No	Keterangan Konfigurasi					
1	Tampilan Auto Scaling Group	ASG-Dzakeff Details				
		Group details				
		Auto Scaling group name ASG-Dzakeff Date created Fri Aug 30 2024 10:16:38 GMT+0700 (Western Indonesia Time)	Desired capacity 1 Minimum capacity 1 Maximum capacity 4	Desired capacity type Units (number of instances) Status	Amazon Resource Name (ARN) ann:aws:autoscaling:us- east-1:547267286937:auto ScalingGroup:8287ad4e-16 a1-490e-9fc9-cd9602846e 08:autoScalingGroupName /ASG-Dzakeff	
		Launch template	Launch template Edit			
		Launch template Til tt-0de784bf264c70572 LT-ASG-Dzakeff	AMI ID ami- 0e86e20dae9224db8	Instance type t2.micro	Owner arn:aws:sts::547267286937 :assumed- role/voclabs/user3396291= 84803-15	
		Version Default	Security groups	Security group IDs sg- 08ba84c6f713b673b	Create time Fri Aug 30 2024 10:41:09 GMT+0700 (Western Indonesia Time)	
		Description Web Server Autoscalling Template	Storage (volumes)	Key pair name vockey	Request Spot Instances No	
		View details in the launch ter	mplate console			
		Network			Edit	
		Availability Zones us-east-1a, us-east-1b, us- east-1c, us-east-1d, us- east-1e, us-east-1f	Subnet ID subnet- 01454aef520dba939, subnet- 0a8d3c3e0148eab6d, subnet-			
2	Tampilan EC2 Instance setelah selesai dibuat ASG	✓ ASG-Dzakeff i-Ods	ecc57a65abda748 ⊗ R	tunning Q Q t2.micro		
	33.3341 413441 7130					





☼ Selamat Mengerjakan