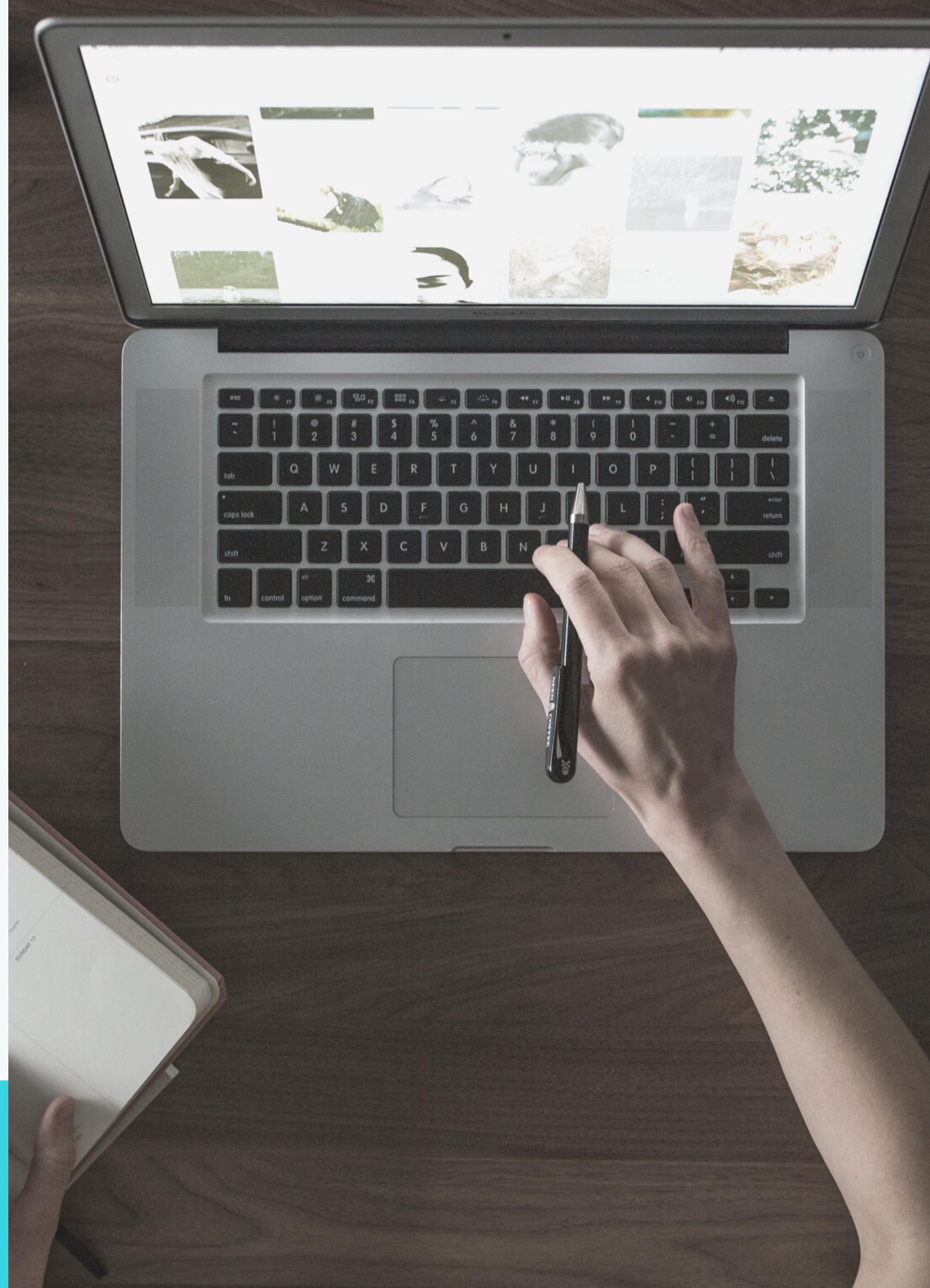


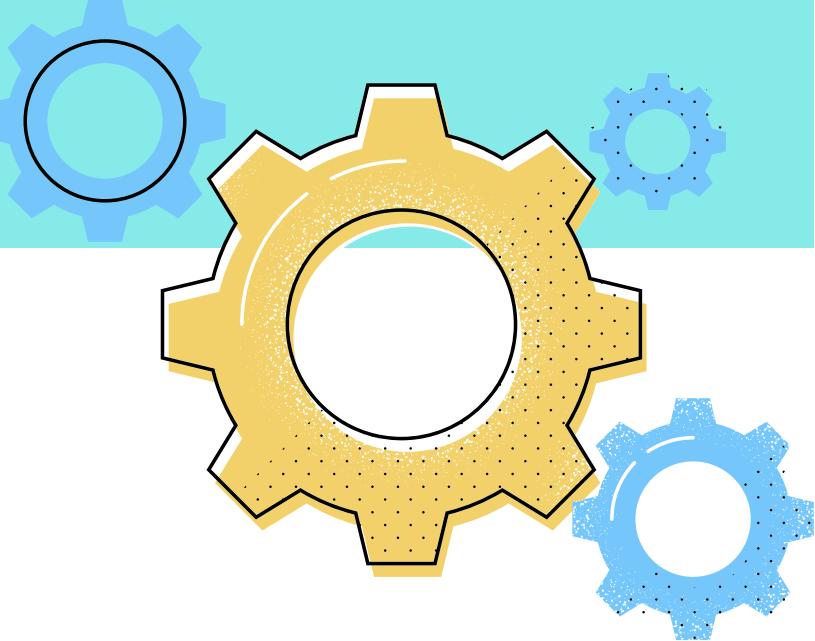
# Deploy single web server

## Topics covered:

- Introduction to interpolation syntax
- EC2 user\_data syntax and used for script to install apache web server
- security group ingress rule update to allow access web server from our lab system
- command to get the public IP of our lab system



# Introduction to interpolation syntax



syntax : \${}

Access variable value :

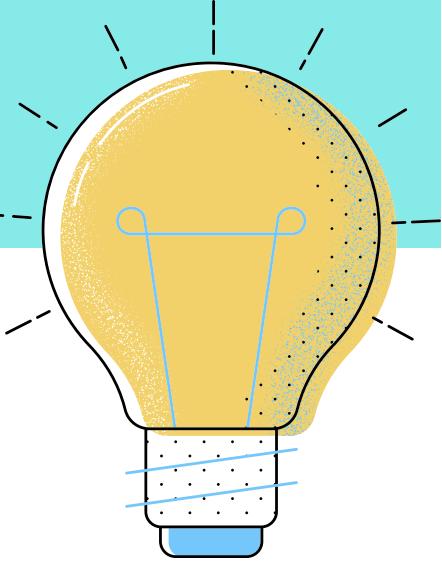
`${var.variable_name}`

example:

`${var.ami}`

`${var.region}`

# Introduction to interpolation syntax



Hashicorp also introduced new syntax for interpolation without curly braces...

Example:

var.ami

var.region

For appended string with variable , you must specify curly braces...

"\${var.environment}-chat"

or

"chat-\${var-environment}"

# **user\_data to install apache web server**

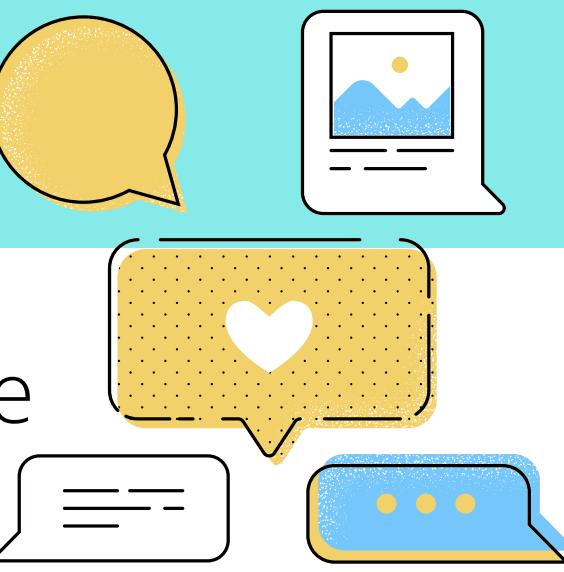
user\_data allows us to install customized script when instance is created. Here is the syntax with "heredoc" syntax, like "<<EOF".

**user\_data = <<EOF**

```
#!/bin/bash -xe
exec > >(tee /var/log/user-data.log | logger -t user-data -s 2>/dev/console) 2>&1
/usr/bin/apt-get update
DEBIAN_FRONTEND=noninteractive /usr/bin/apt-get upgrade -yq
/usr/bin/apt-get install apache2 -y
/usr/sbin/ufw allow in "Apache Full"
/bin/echo "Hello world " >/var/www/html/index.html
instance_ip=`curl http://169.254.169.254/latest/meta-data/local-ipv4`
echo $instance_ip >>/var/www/html/index.html
```

**EOF**

Note: there is no space between << and EOF in "user\_data = <<EOF"



# Security group ingress rule update



- Ingress rule syntax to allow incoming traffic...

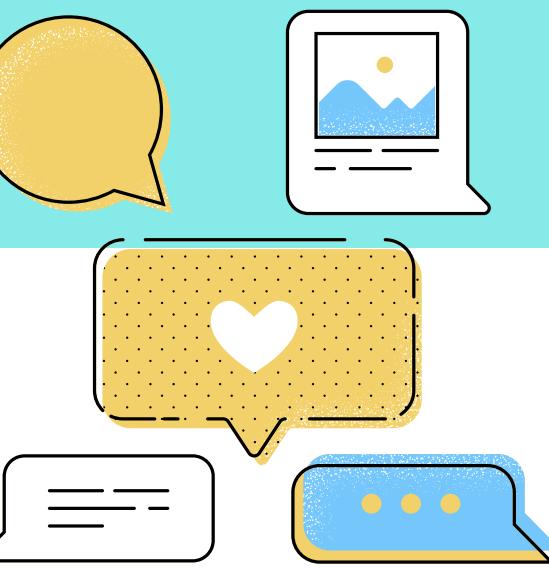
```
ingress {  
    from_port = 22  
    to_port = 22  
    protocol = "tcp"  
    cidr_blocks = [ "73.241.51.131/32"]  
}
```

- Egress rule syntax to allow outgoing traffic...

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

Note: generally outgoing traffics allows to all destination that's why ["0.0.0.0/0"]

# How can we get the public IP assigned to our lab system



Run below command to get public ip assigned to your lab system..

```
$ curl https://checkip.amazonaws.com
```

**73.241.51.131**

```
$
```

OR

Search in google.com "what is my ip "

OR

Go to <https://www.ipchicken.com/> and note current IP address