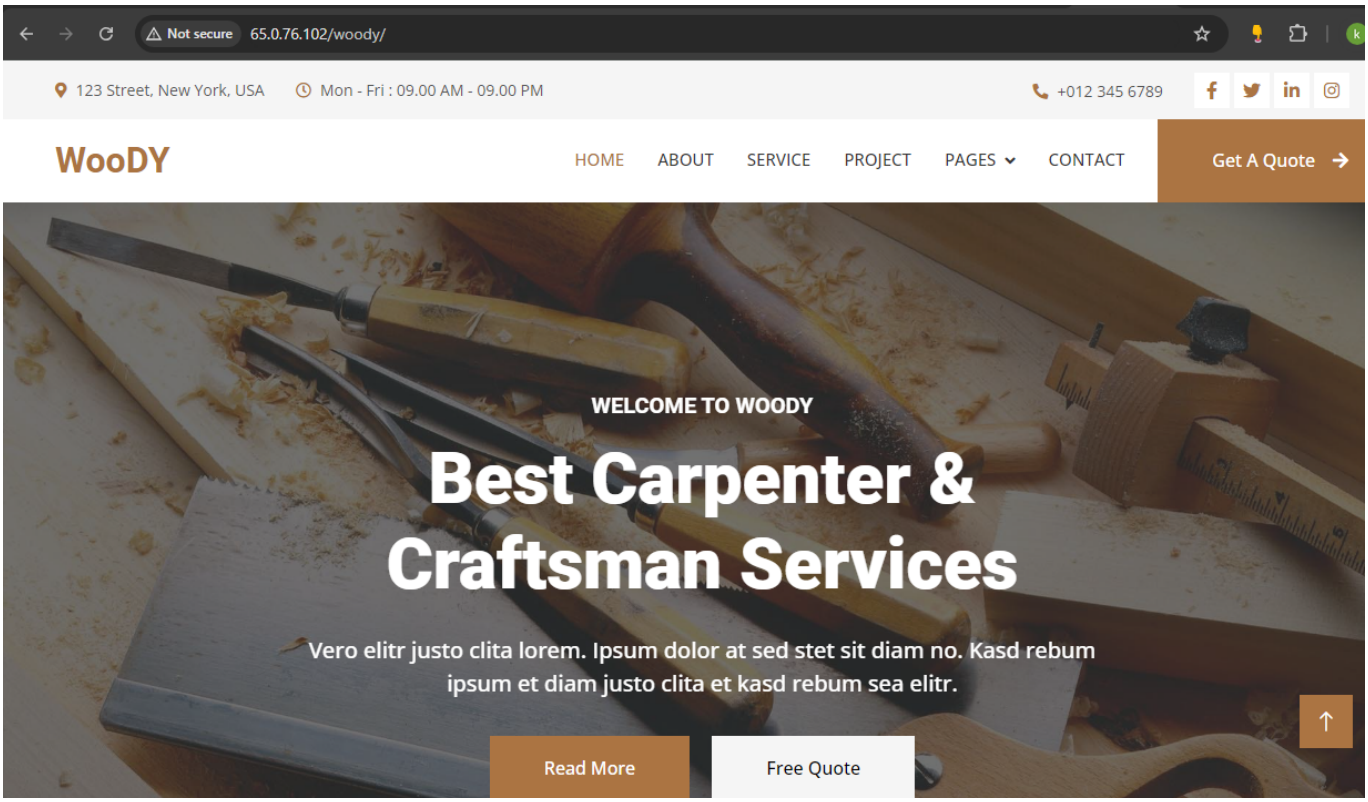
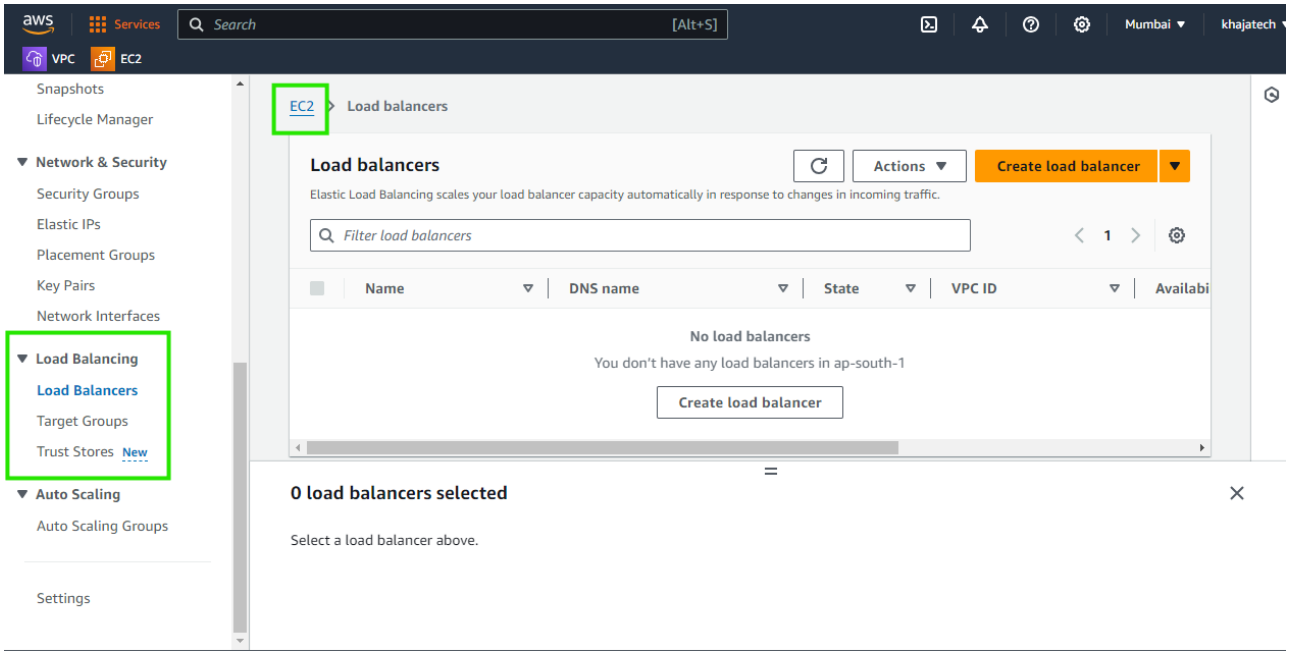
Load Balancing in AWS

- We will try static scaling
- On the ec2 instances in web subnet lets have a sample web page Refer Here
- Setup:
    - Lets create a vpc with 2 public and 2 private subnets
    - on the ec2 instances in public subnets lets configure sample website
    - This website will be hosted on 80 port and 22 port is required to ssh and install website.
- Commands

```
sudo apt update
sudo apt install nginx unzip -y
cd /tmp
wget https://www.free-css.com/assets/files/free-css-
templates/download/page294/woody.zip
unzip woody.zip
sudo mv carpenter-website-template/ /var/www/html/woody
# Now navigate to http://<public-ip>/woody
```



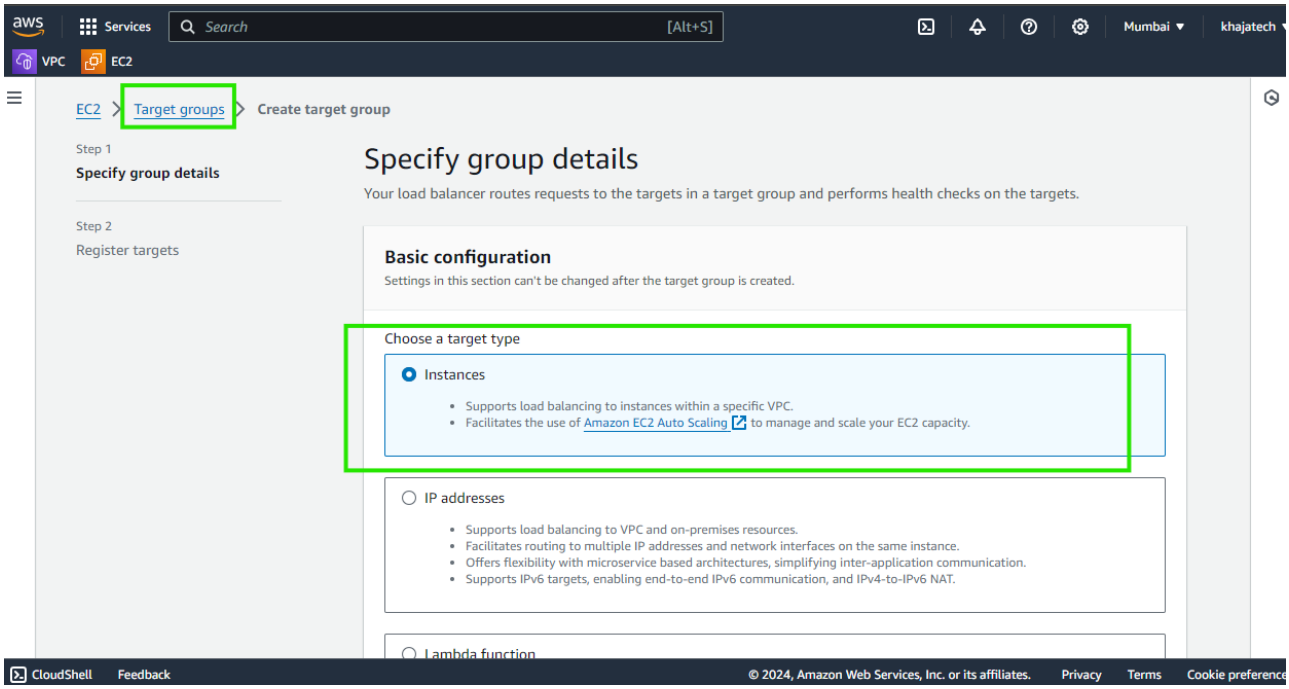
- We have two ec2 instances with same application



- Target Groups in a load balancers section represent a set of server where the traffic has to be forwarded by the load balancer

- Target group can be
    - ec2 instances
    - ip addresses
    - lamdba function
    - Application load balancer

- Now lets create a target group with web-1, web-2 instnaces



VPC

Select the VPC with the instances that you want to include in the target group. Only VPCs that support the IP address type selected above are available in this list.

lb-demo-vpc
vpc-003a62d25444e5afa
IPv4 VPC CIDR: 10.0.0.0/16

Protocol version

- (●) HTTP1
  Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.1 or HTTP/2.
- ( ) HTTP2
  Send requests to targets using HTTP/2. Supported when the request protocol is HTTP/2 or gRPC, but gRPC-specific features are not available.
- ( ) gRPC
  Send requests to targets using gRPC. Supported when the request protocol is gRPC.

Health checks

The associated load balancer periodically sends requests, per the settings below, to the registered targets to test their status.

Health check protocol

HTTP

Health check path

Use the default path of "/" to perform health checks on the root, or specify a custom path if preferred.

/

Up to 1024 characters allowed.

▼ Advanced health check settings

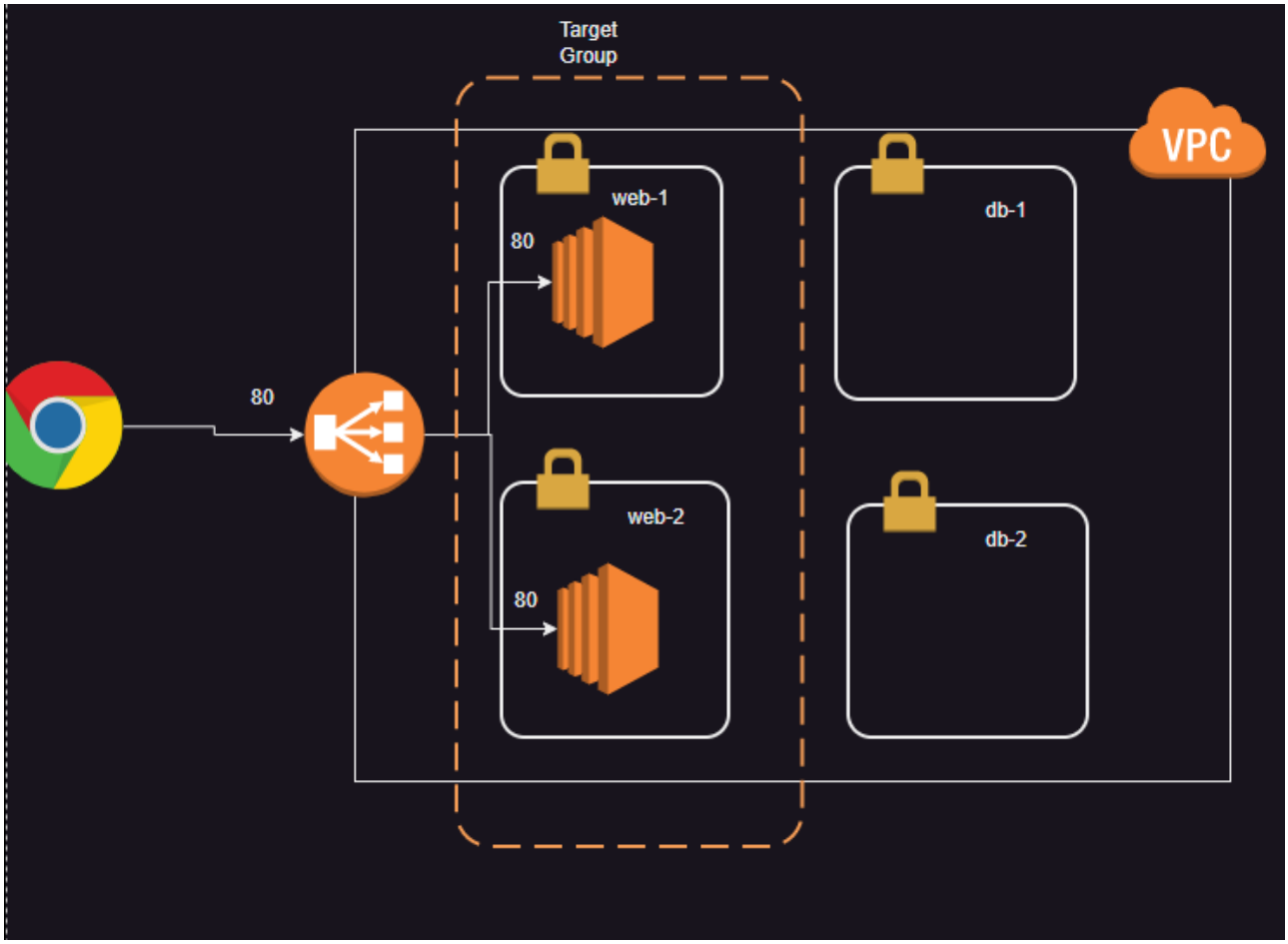
Restore defaults

Health check port

The port the load balancer uses when performing health checks on targets. By default, the health check port is the same as the target group's traffic port. However, you can specify a different port as an override.

- ( ) Traffic port
- (●) Override

- Now lets add a load balancer



- Note: view the recording for screen shots

Lets implement Layer 4 LB with ec2 instances without public ips

- Create a vpc with 2 public and 2 private subnets
- To be continued in the next session

AWS Loadbalancer types

- AWS has the following load balancer types
  - Application Load Balancer:
    - This is Layer 7 LB
  - Network Load Balancer
    - This is Layer 4 LB
  - Gateway Load Balancer
    - This is Layer 2 LB for forwarding/inspecting network traffic.
  - Classic Load Balancer: This is old generation load balancer which supports both Layer 4 and Layer 7 load Balancing. Not recommended to use