AWS ELB - ALB Multiple Target Groups

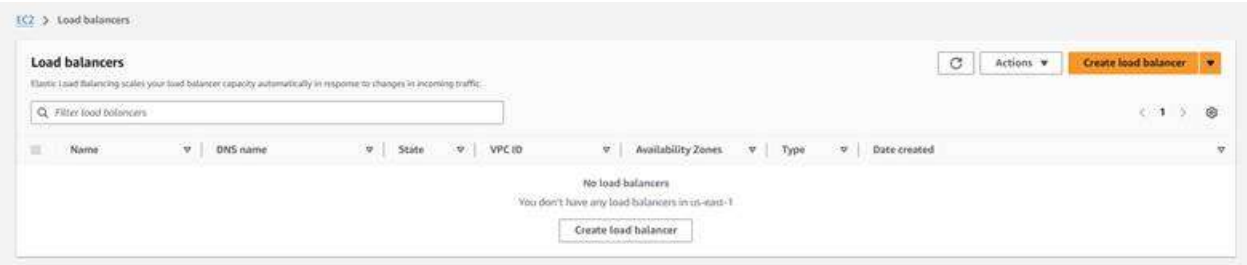
Two EC2 instances with a simple web application that shows the web page with the string "Hey, it's a me, <HOSTNAME>!" One EC2 instance with a simple web application that shows the web page with the string "Hey, it's only a test..." under the endpoint /test

Objectives

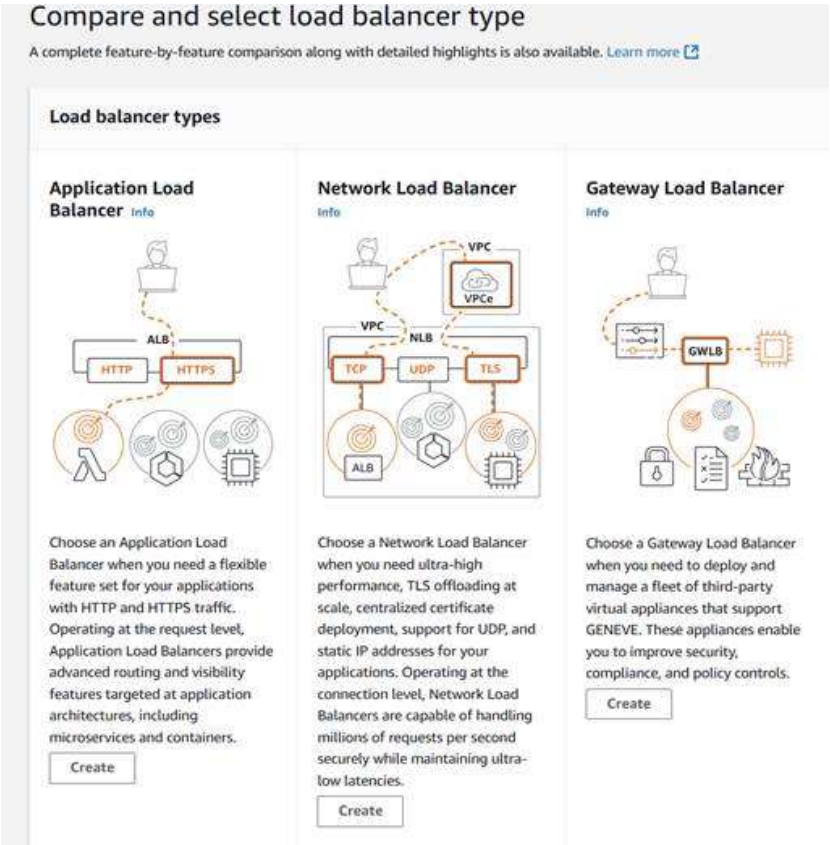
1. Create an application load balancer for the two instances you have, with the following properties
2. healthy threshold: 3
3. unhealthy threshold: 3
4. interval: 10 seconds
5. Create another target group for the third instance
6. Traffic should be forwarded to this group based on the "/test" path

Solution

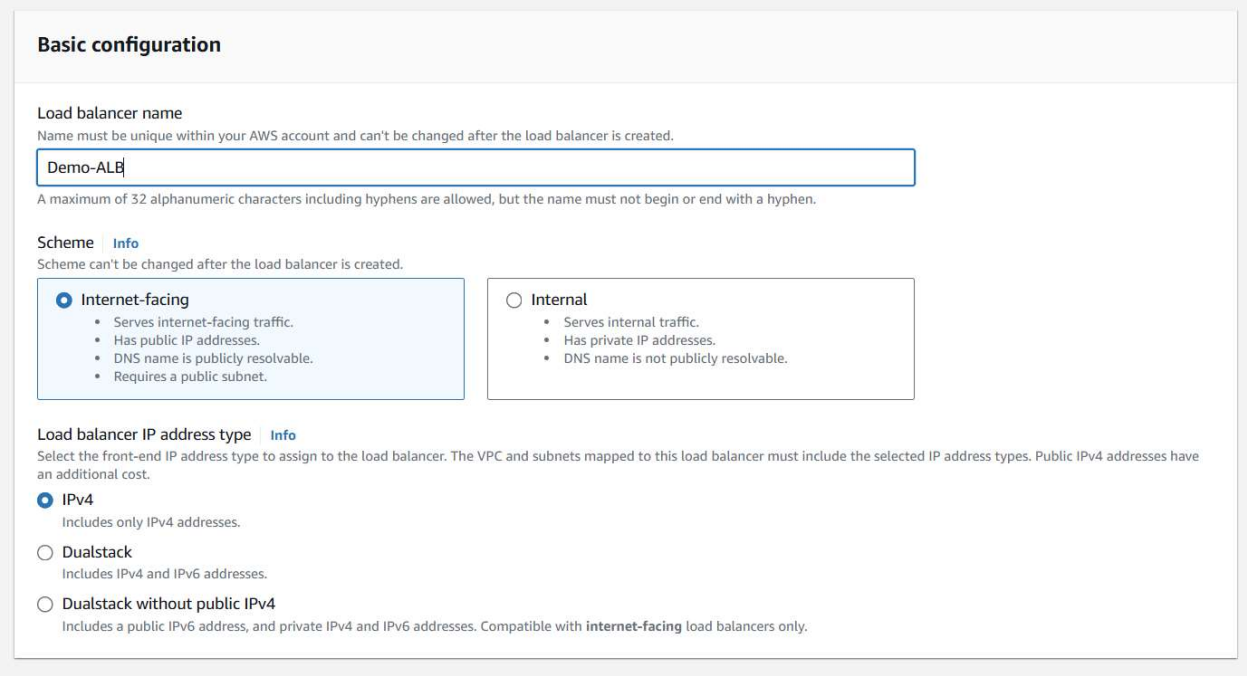
- Go to EC2 service
- Click in the left side menu on "Load balancers" under "Load balancing"
- Click on "Create load balancer"



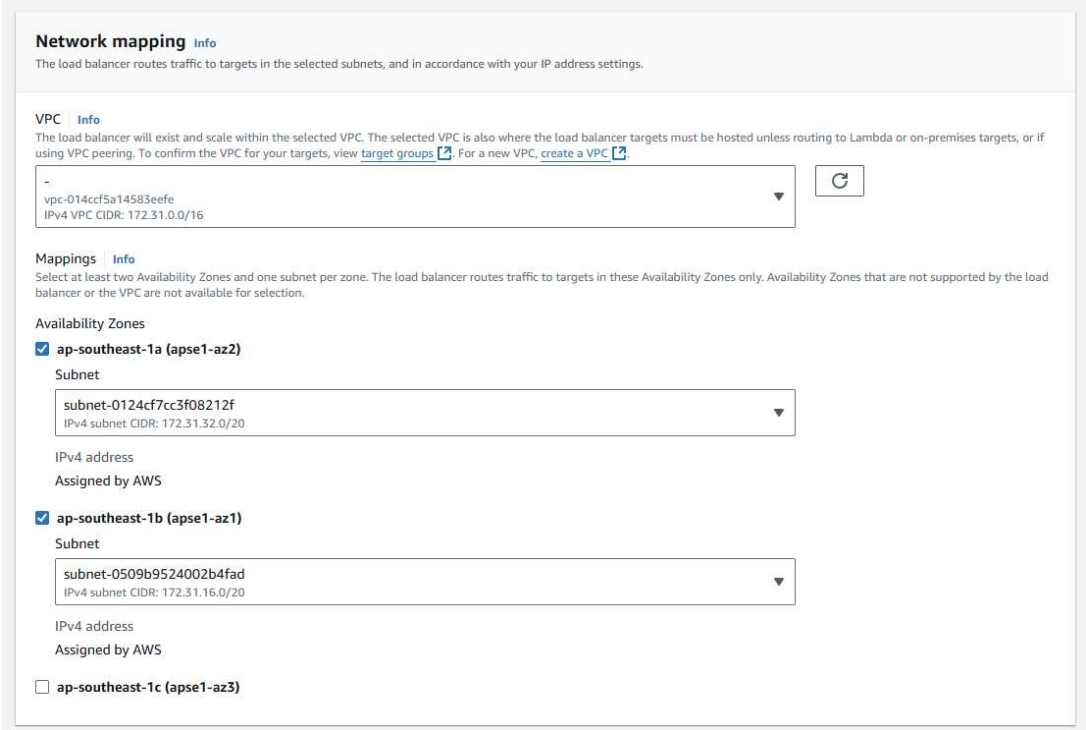
- Choose "Application Load Balancer"



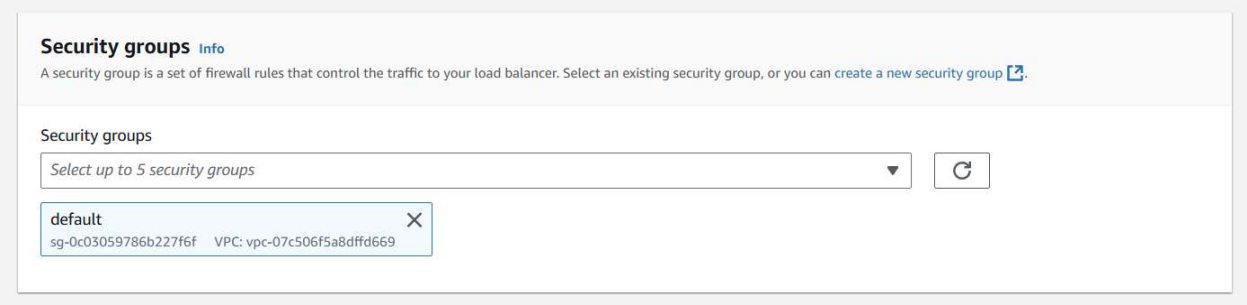
- Insert a name for the LB



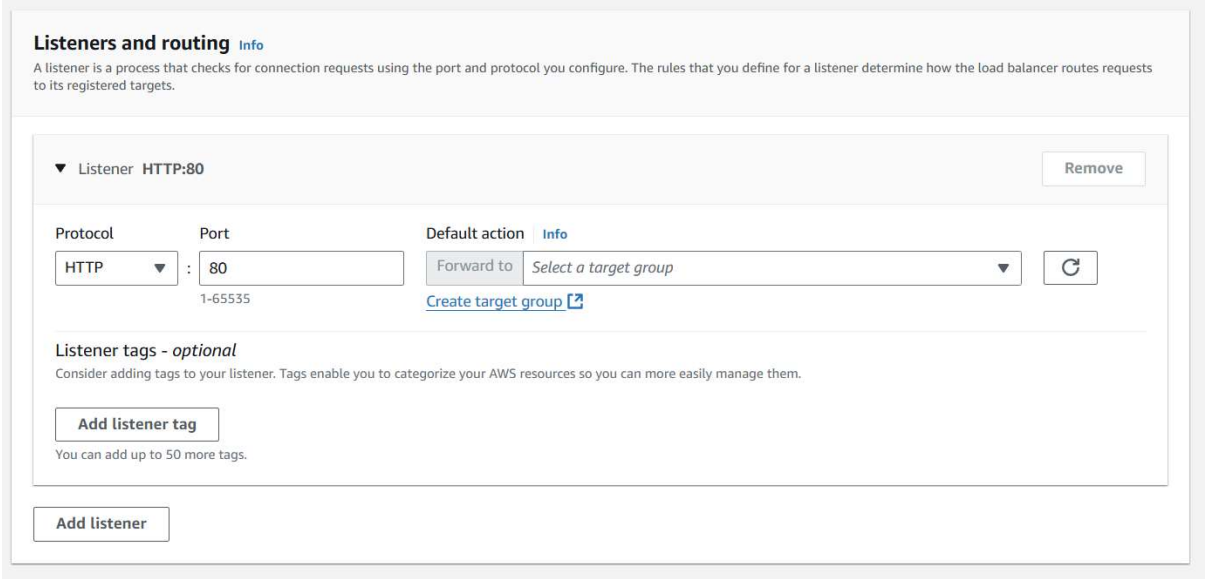
- Choose an AZ



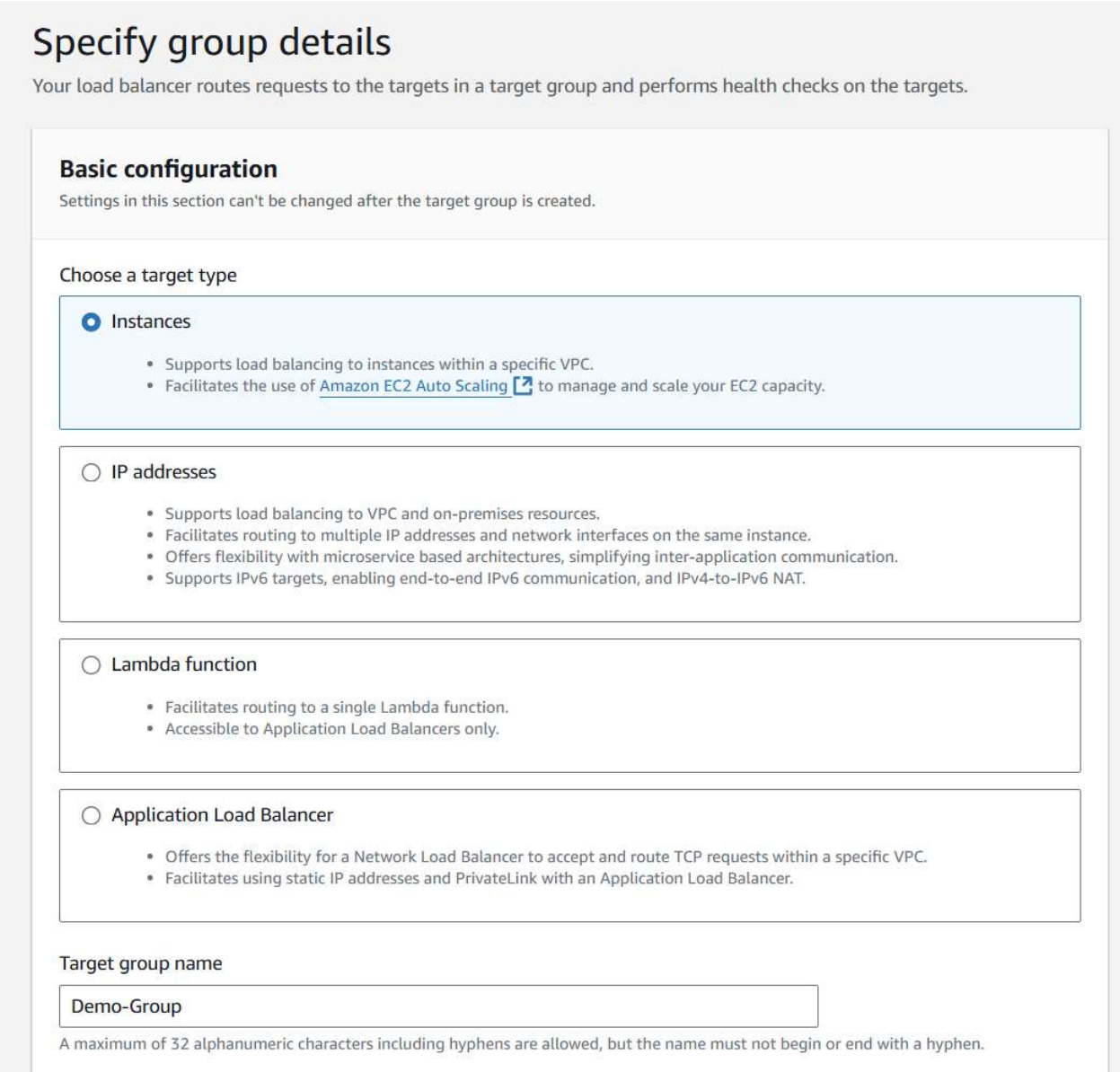
- Choose a security group



- Under "Listeners and routing" click on "Create target group" and choose "Instances"



- Provide a name for the target group



- Set healthy threshold to 3
- Set unhealthy threshold to 3
- Set interval to 10 seconds

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

Healthy threshold

The number of consecutive health checks successes required before considering an unhealthy target healthy.

3

2-10

Unhealthy threshold

The number of consecutive health check failures required before considering a target unhealthy.

3

2-10

Timeout

The amount of time, in seconds, during which no response means a failed health check.

5 seconds

2-120

Interval

The approximate amount of time between health checks of an individual target

10 seconds

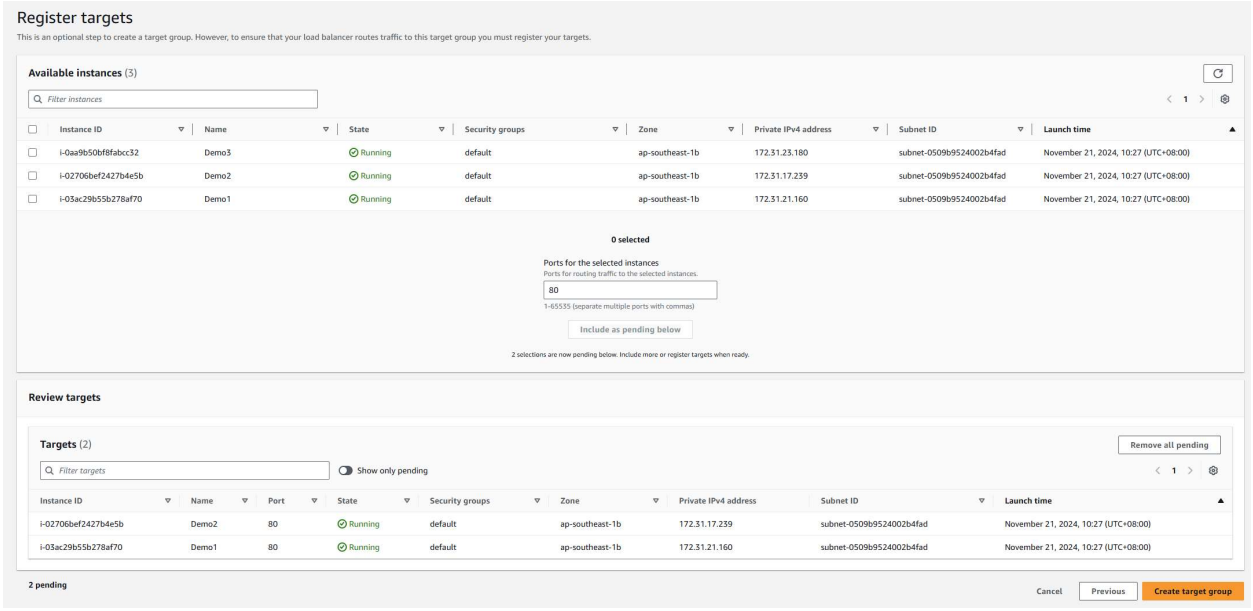
5-300

Success codes

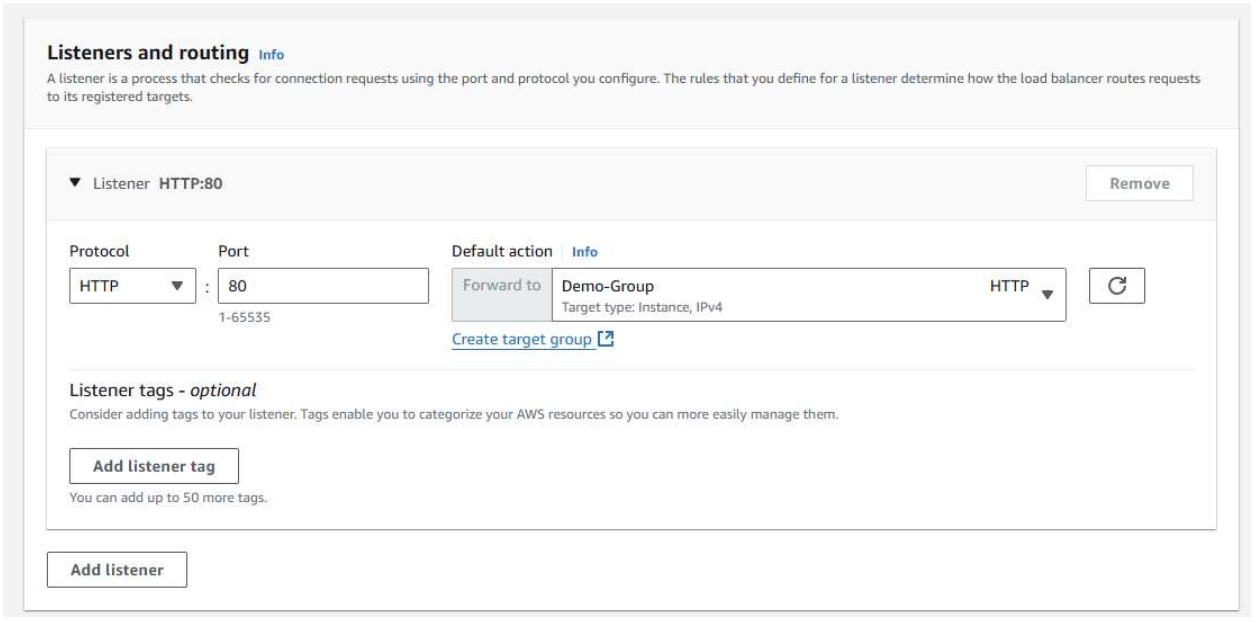
The HTTP codes to use when checking for a successful response from a target. You can specify multiple values (for example, "200,202") or a range of values (for example, "200-299").

200

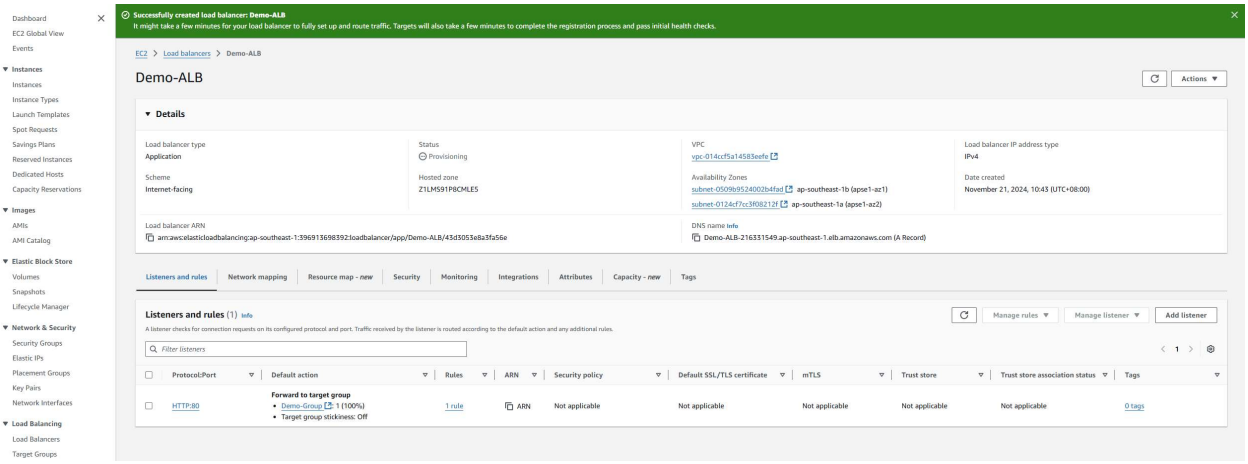
- Click on "Next" and choose two out of three instances and click on include as pending below
- Click on "Create target group"



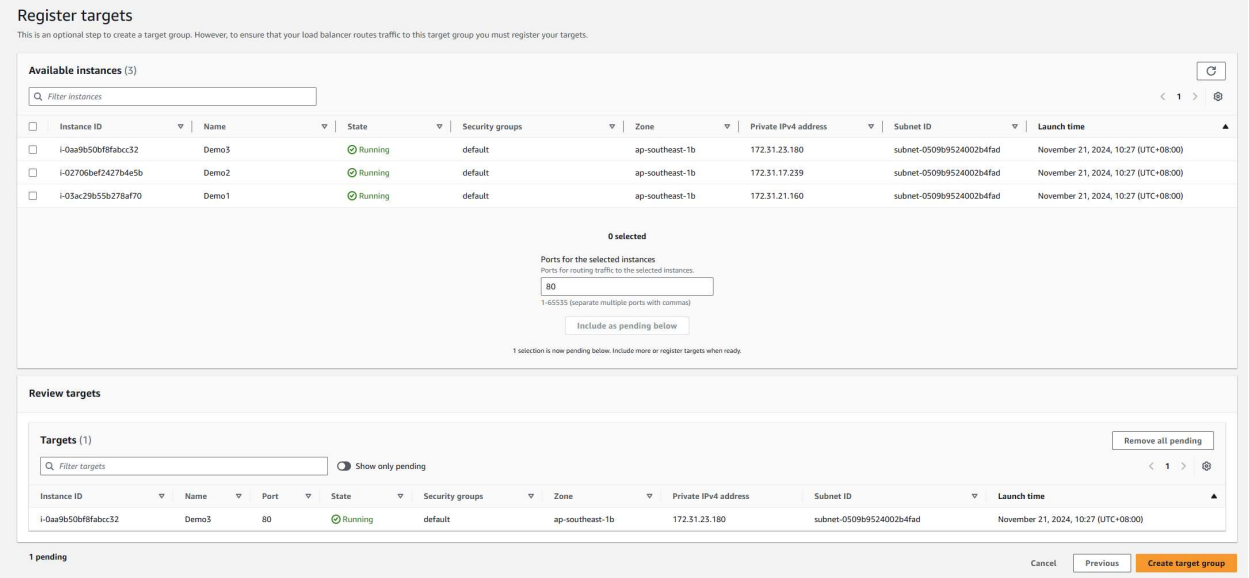
- Refresh target groups and choose the target group



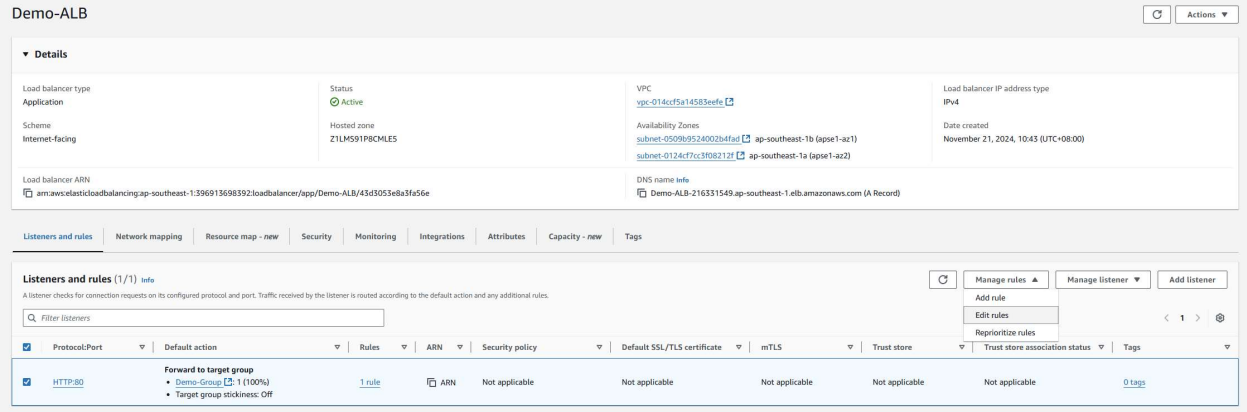
- Click on "Create load balancer" and wait for it to be provisioned
- In the left side menu click on "Target Groups" under "Load Balancing"



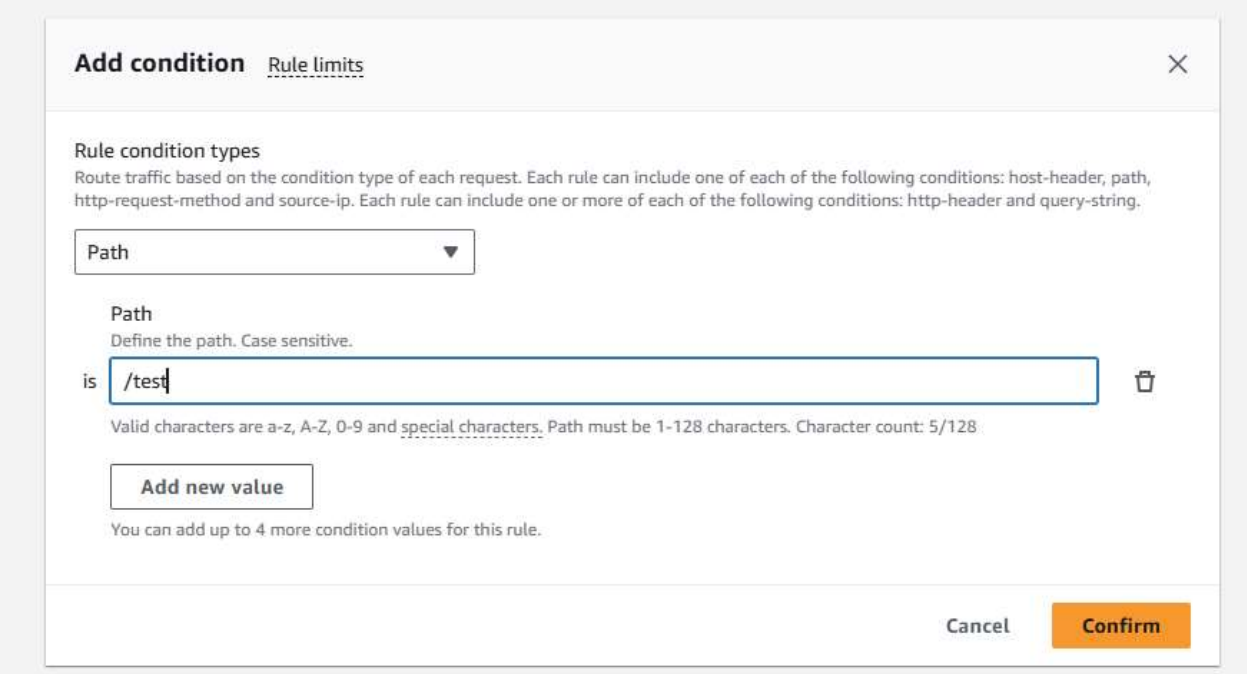
- Click on "Create target group"
- Set it with the same properties as previous target group with third instance



- Go back to your ALB and under "Listeners" click on "Edit rules" under current listener



- Add a rule where if the path is "/test" then traffic should be forwarded to the second target group

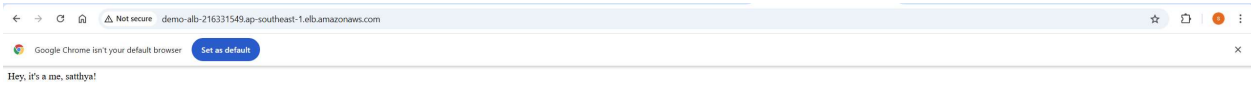


- Click on "Save"
- Test it by going to the browser, insert the address and add "/test" to the address

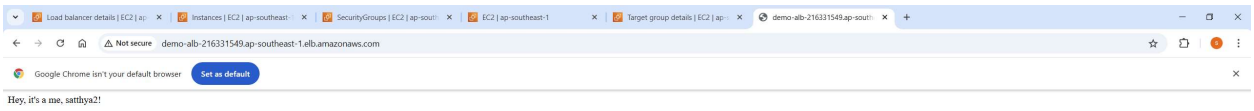
Output

Load was distributed equally to both instance using load balance after configuration

- First refresh



- Second refresh



- Run the DNS name with /test