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APPLICATION LOAD BALANCER IN LAWS

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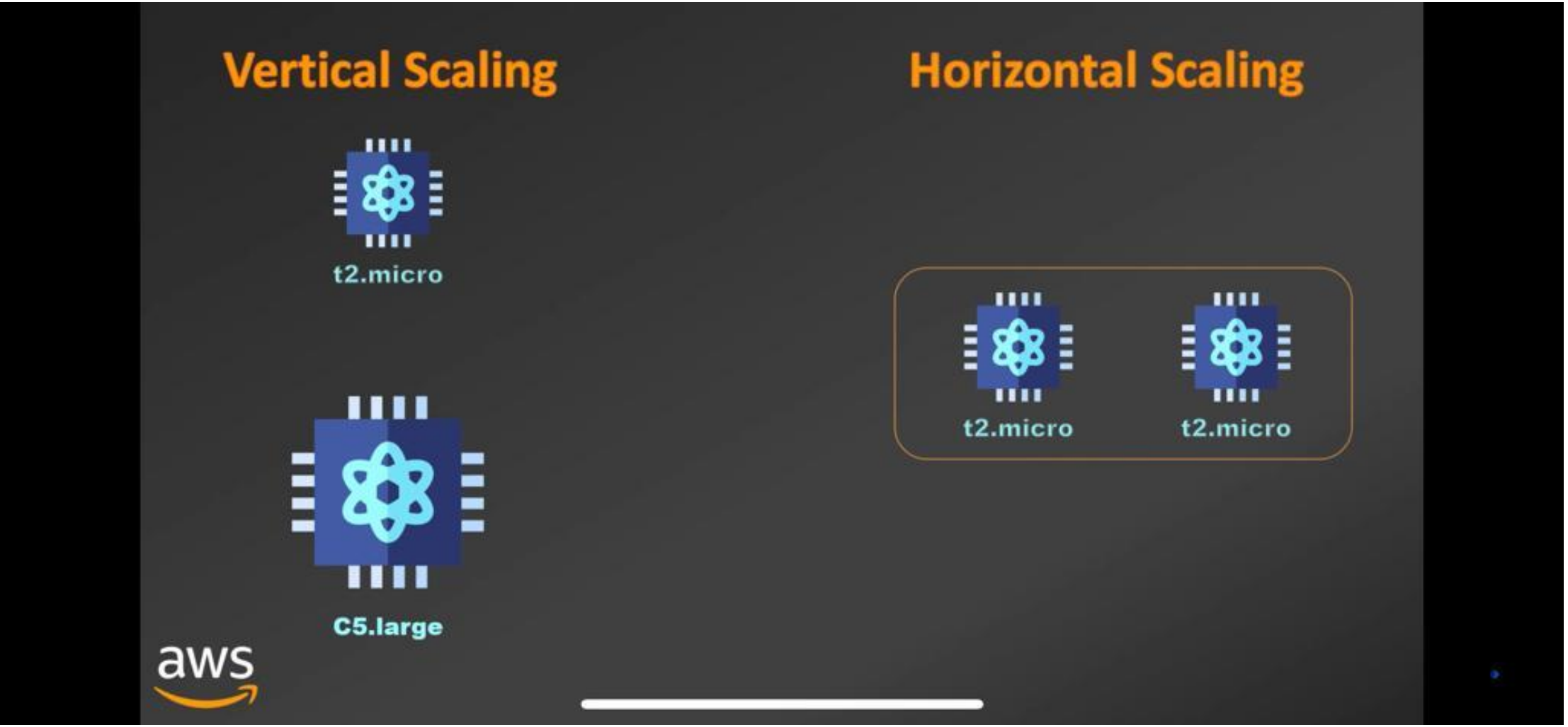
REG NO: 40111510

Presentation Outline

- Course Certificate
- Introduction
- Objectives
- System Architecture / Ideation Map
- Module Implementation
- Application Snapshots
- Results and Discussions
- Conclusion & Future work
- References


How to setup Application Load Balancer in AWS
aws

WHY LOAD BALANCER:



What is load balancer in aws:

- A load balancer serves as the single point of contact for clients. The load balancer distributes incoming application traffic across multiple targets, such as EC2 instances, in multiple Availability Zones. This increases the availability of your application.

Types of load balancers:

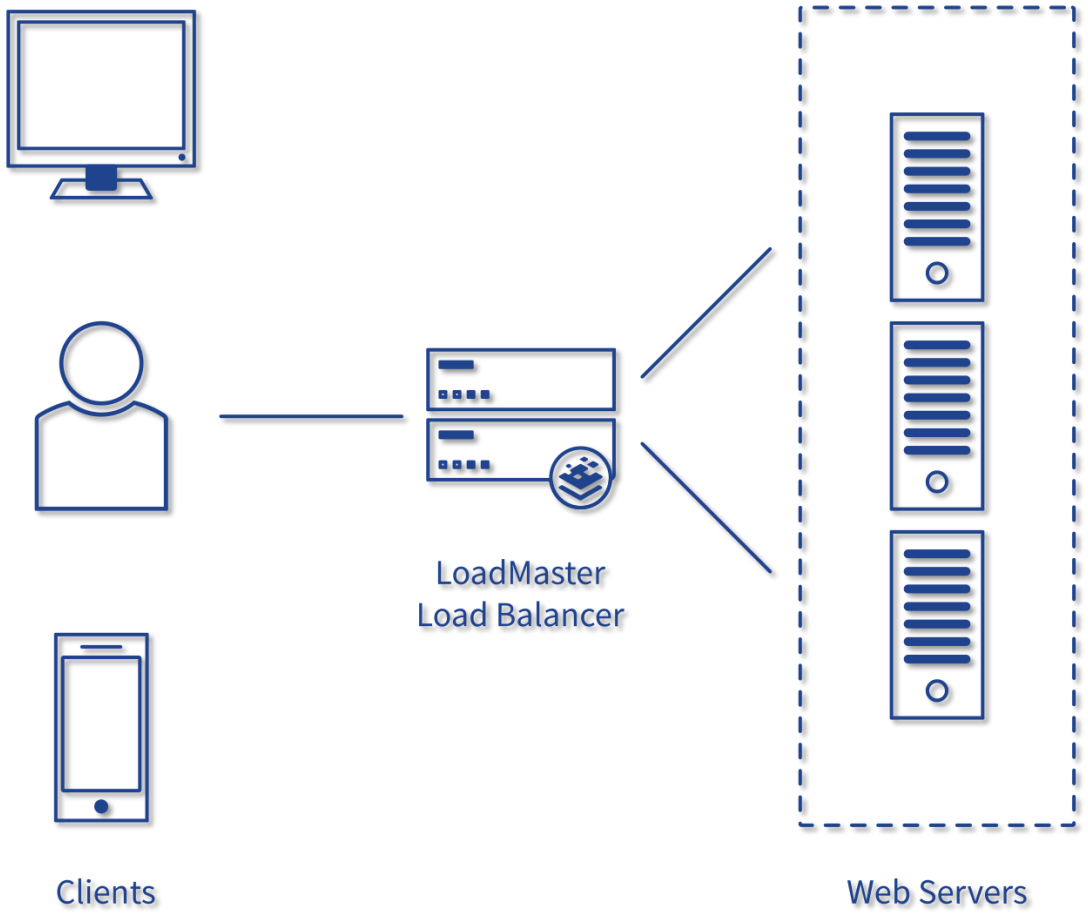
- Elastic Load Balancing supports the following types of load balancers: Application Load Balancers, and Network Load Balancers. Amazon ECS services can use these types of load balancer. Application Load Balancers are used to route HTTP/HTTPS (or Layer 7) traffic. Network Load Balancers and Classic Load Balancers are used to route TCP (or Layer 4) traffic.
- **Topics**
- APPLICATION LOAD BALANCER
- NETWORK LOAD BALANCER
- CLASSIC LOAD BALANCER

APPLICAION LOAD BALANCER:

- Application Load Balancer components
- A load balancer serves as the single point of contact for clients. The load balancer distributes incoming application traffic across multiple targets, such as EC2 instances, in multiple Availability Zones. This increases the availability of your application.

- An Layer 7 load balancer works at the application layer
- the highest layer in the OSI model
- makes its routing decisions based on more detailed information such as the characteristics of the HTTP/HTTPS header, message content, URL type, and cookie data.
- An application load balancer works at the request layer(Layer 7) of the OSI model.

DIAGRAMATIC REPRESESNTATION:



STEPS INVOLVED:

Step 1: Select a load balancer type.

Step 2: Define your load balancer.

Step 3: Assign security groups to your load balancer in a VPC.

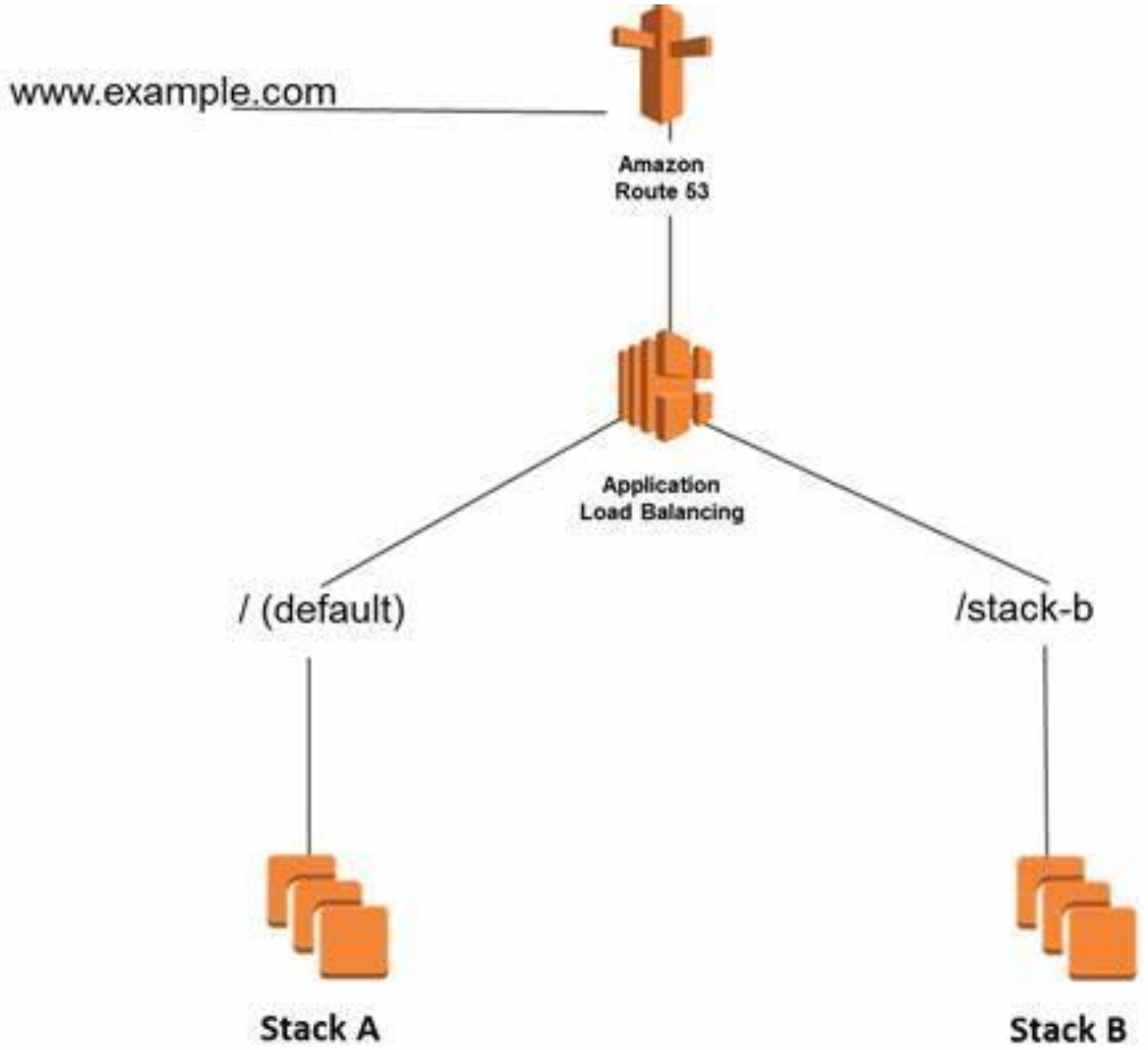
Step 4: Configure health checks for your EC2 instances.

Step 5: Register EC2 instances with your load balancer.

Step 6: Tag your load balancer (optional)

Step 7:create any verify your load balancer

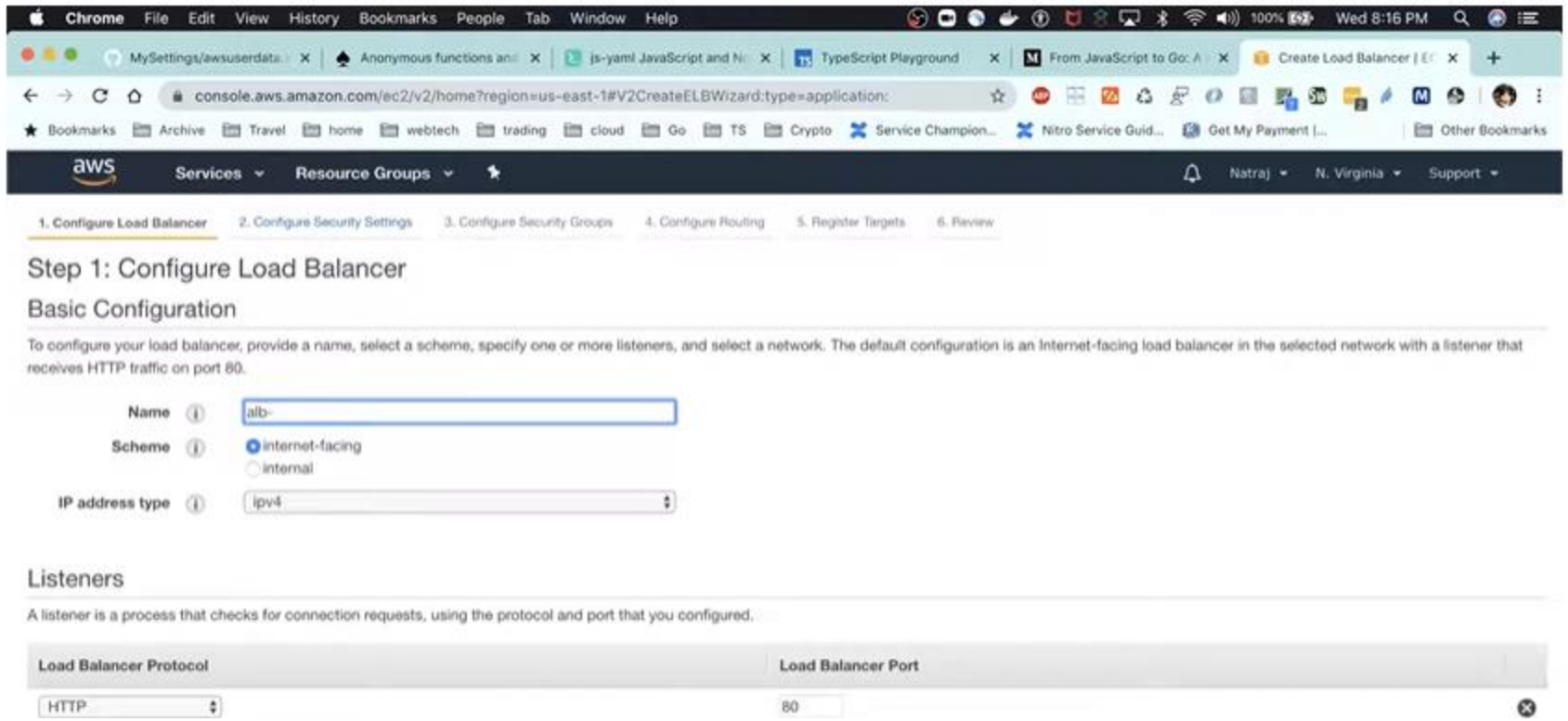
Step 8:Delete your load balancer


www.example.com
Amazon
Route 53
Application
Load Balancing
/ (default)
/stack-b
Stack A
Stack B

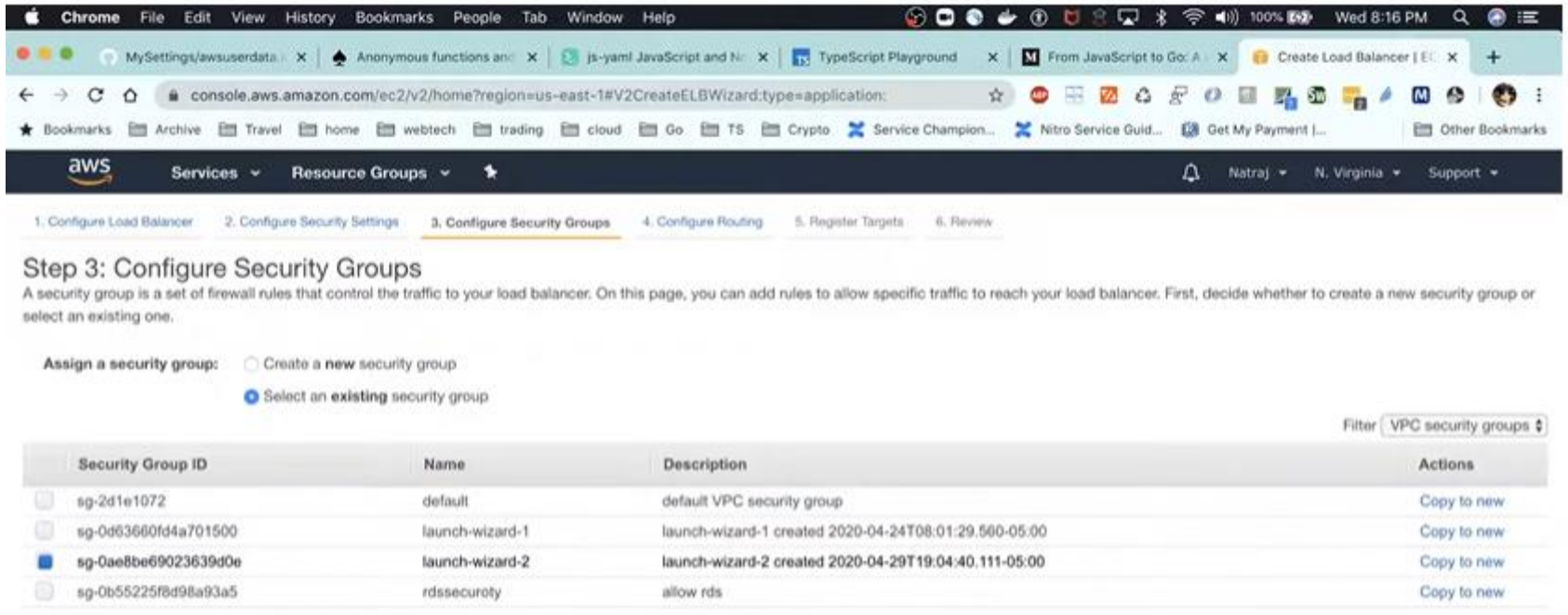
APPLICATIONS OF APPLICATION LOAD BALANCER:

- **Improve Efficiency**
  Load Balancers lessen the increased load on a server and maintain smooth operations and responses, providing a better experience for customers.
- **Predictive Analysis**
  Traffic bottlenecks can be predicted by software load balancers before they occur in the real world.
- **Resilience**
  With little or no downtime, the defective and under-performing components can be replaced promptly, providing information on which equipment needs service.
- **Security**
  Load Balancer adds an extra layer of security to your website and applications without requiring any changes.
- **Scalability**
  Load Balancers allow you to change the server infrastructure at any time without impacting services.

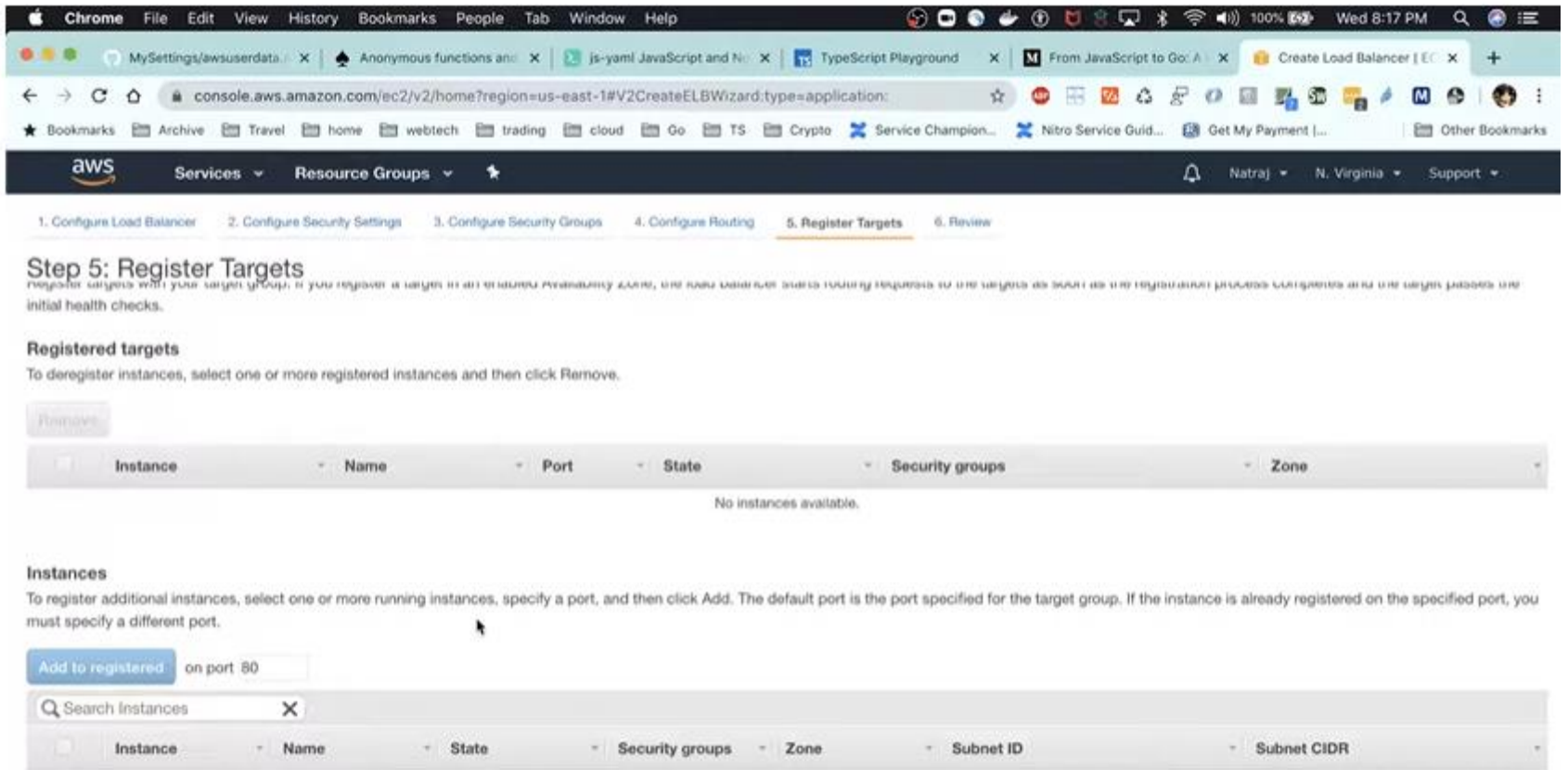
1.Configure load balancer:

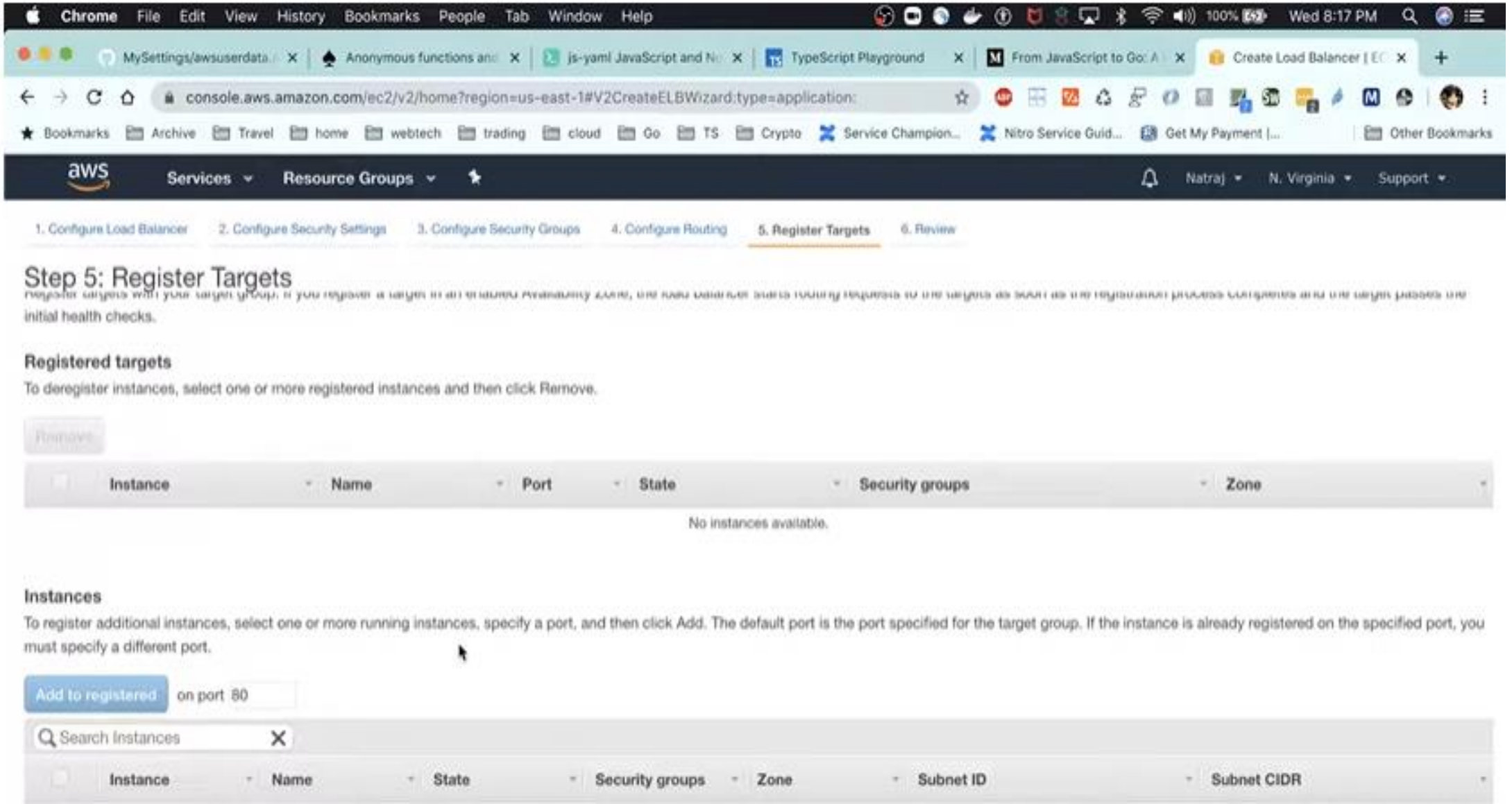


2.Configure security settings:
3.Configure Security Groups:



4.Register settings:

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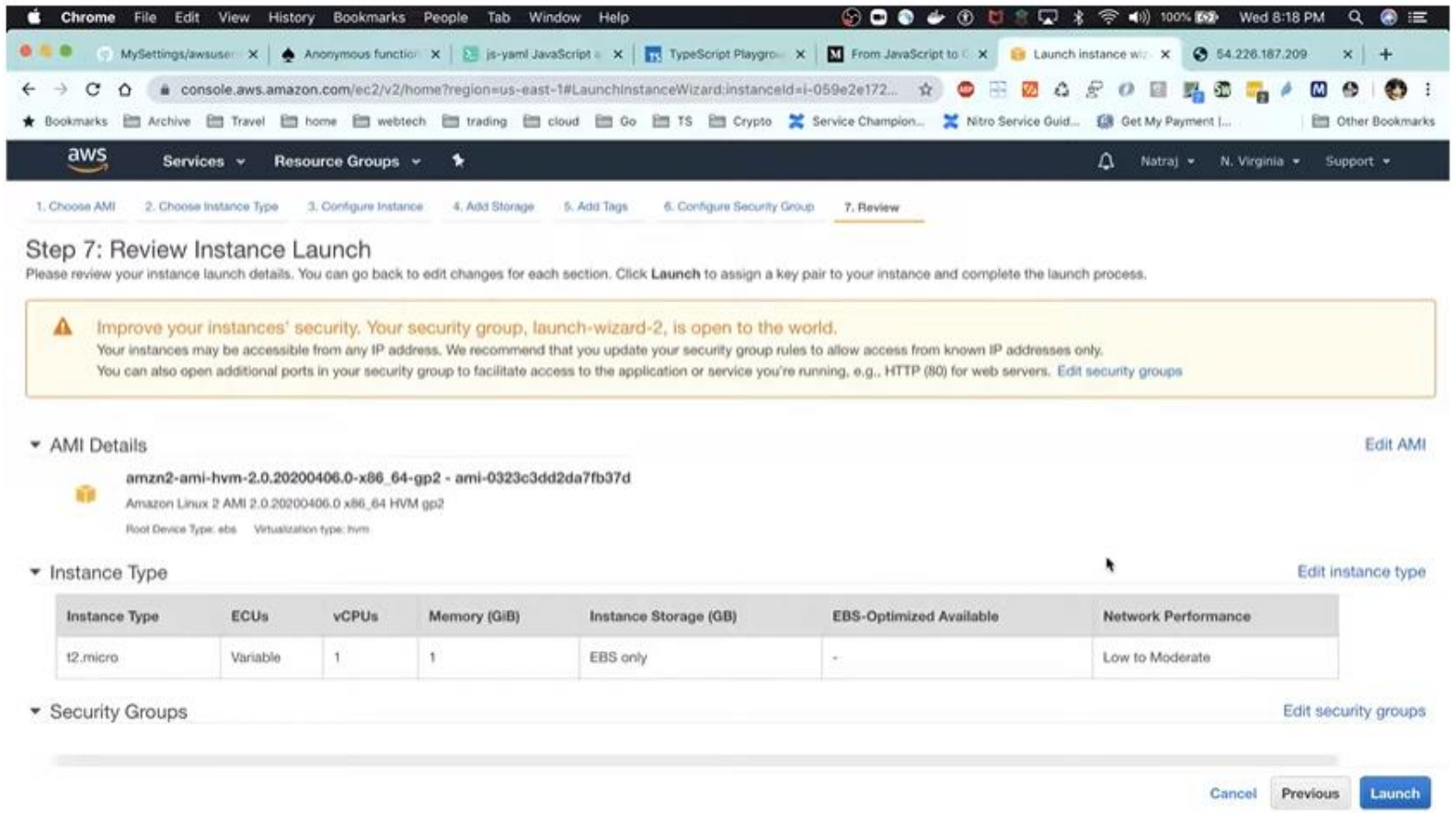
Bookmarks Archive Travel home webtech trading cloud Go TS Crypto Service Champion... Nitro Service Guid... Get My Payment |... Other Bookmarks
aws
Services
Resource Groups
Natraj
N. Virginia
Support
1. Configure Load Balancer
2. Configure Security Settings
3. Configure Security Groups
4. Configure Routing
5. Register Targets
6. Review
Step 5: Register Targets
initial health checks.
Registered targets
To deregister instances, select one or more registered instances and then click Remove.
Remove
Instance
Name
Port
State
Security groups
Zone
No instances available.
Instances
To register additional instances, select one or more running instances, specify a port, and then click Add. The default port is the port specified for the target group. If the instance is already registered on the specified port, you must specify a different port.
Add to registered
on port 80
Search Instances
Instance
Name
State
Security groups
Zone
Subnet ID
Subnet CIDR

Review instances:



Final output: