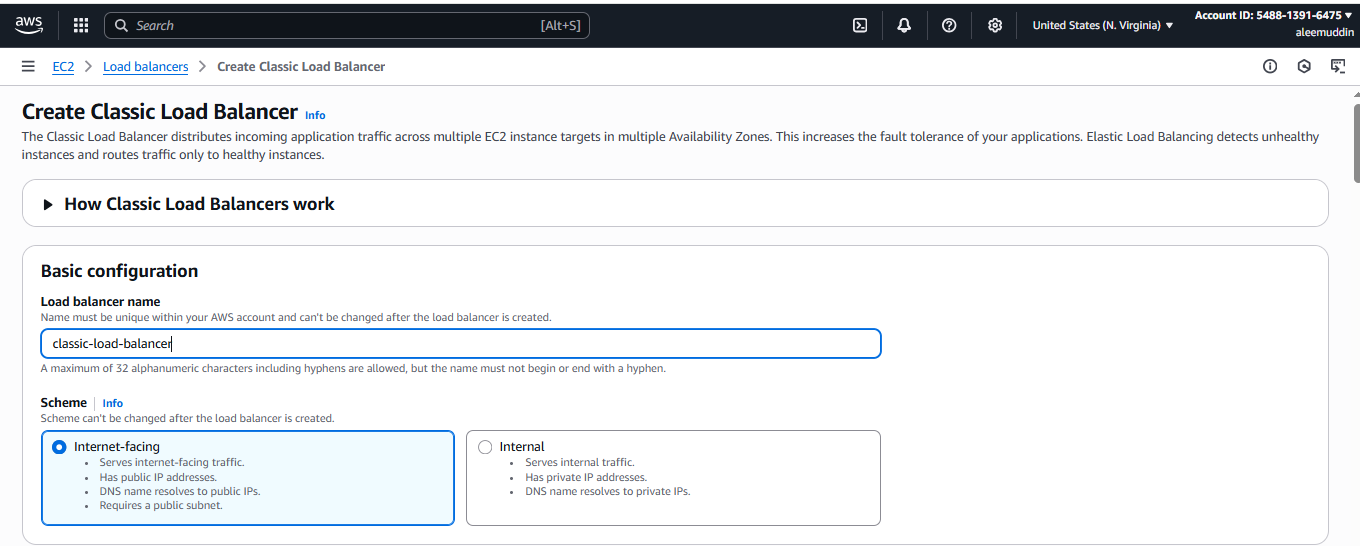
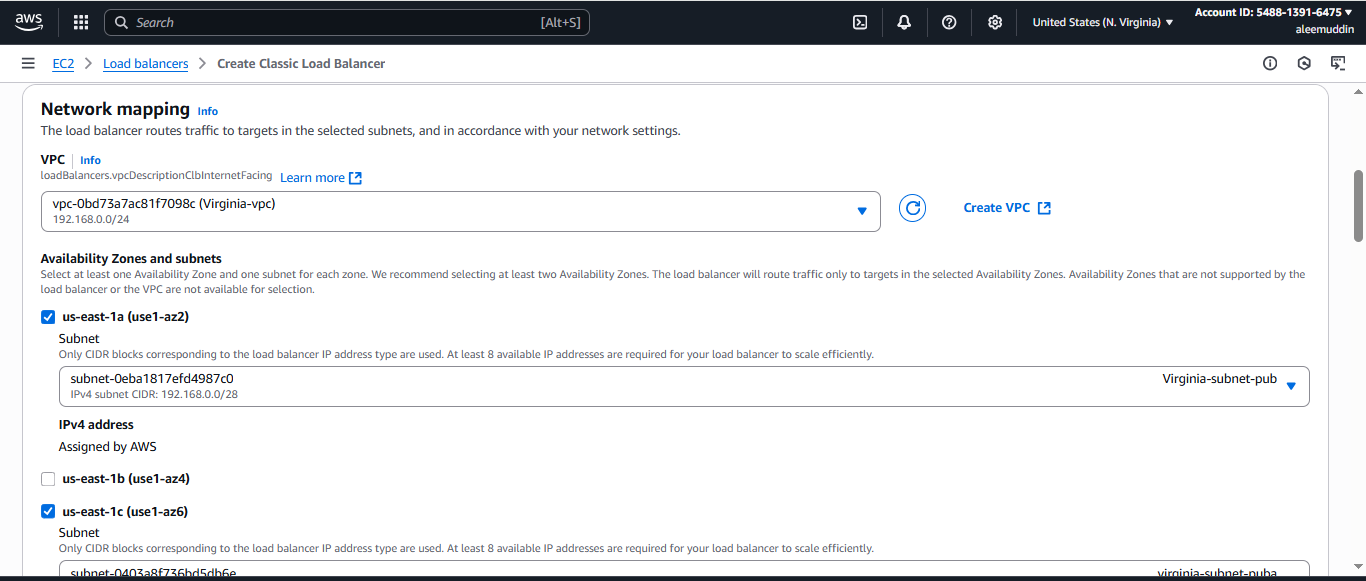
1. **Configure Classic Load balancer.**

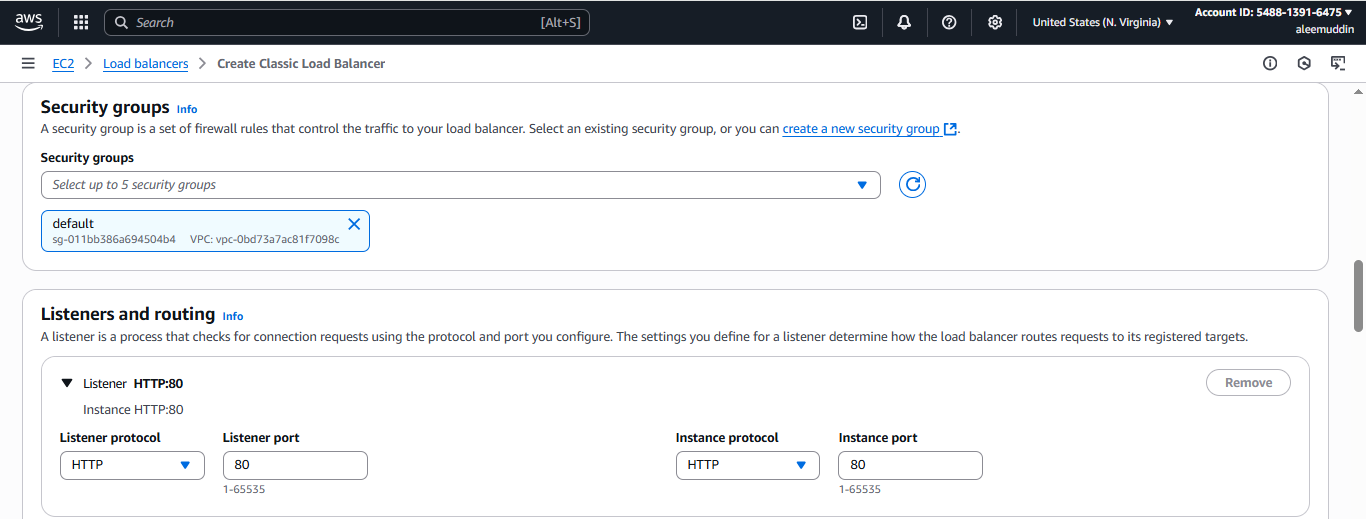
***(Legacy — works on Layer 4 & 7)***

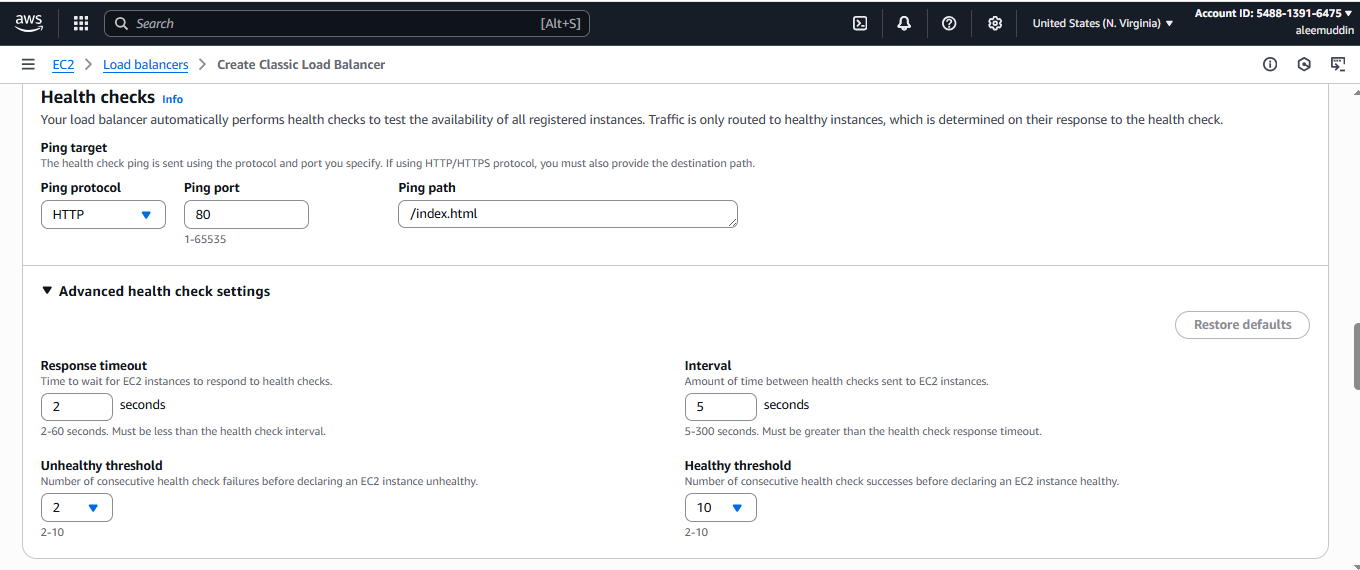
1. **Open EC2 → Load Balancers → Create Load Balancer → Select Classic Load Balancer.**
2. **Name your LB and choose the scheme:**
   * **Internet-facing or Internal.**
3. **Listeners:**
   * **Add HTTP (80) and/or HTTPS (443).**
4. **Availability Zones:**
   * **Select the VPC and subnets (at least 2 for HA).**
5. **Security Groups:**
   * **Allow inbound HTTP/HTTPS.**
6. **Health Checks:**
   * **Example: Protocol HTTP, Ping Path /health.**
7. **Add EC2 Instances to the LB.**

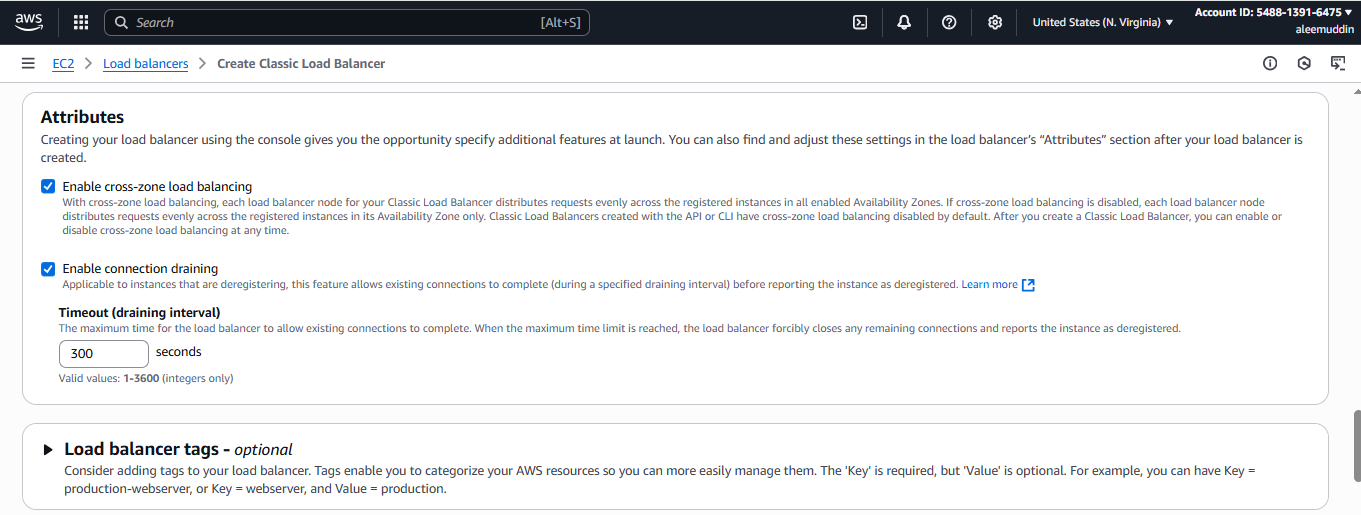
**Review & Create.**

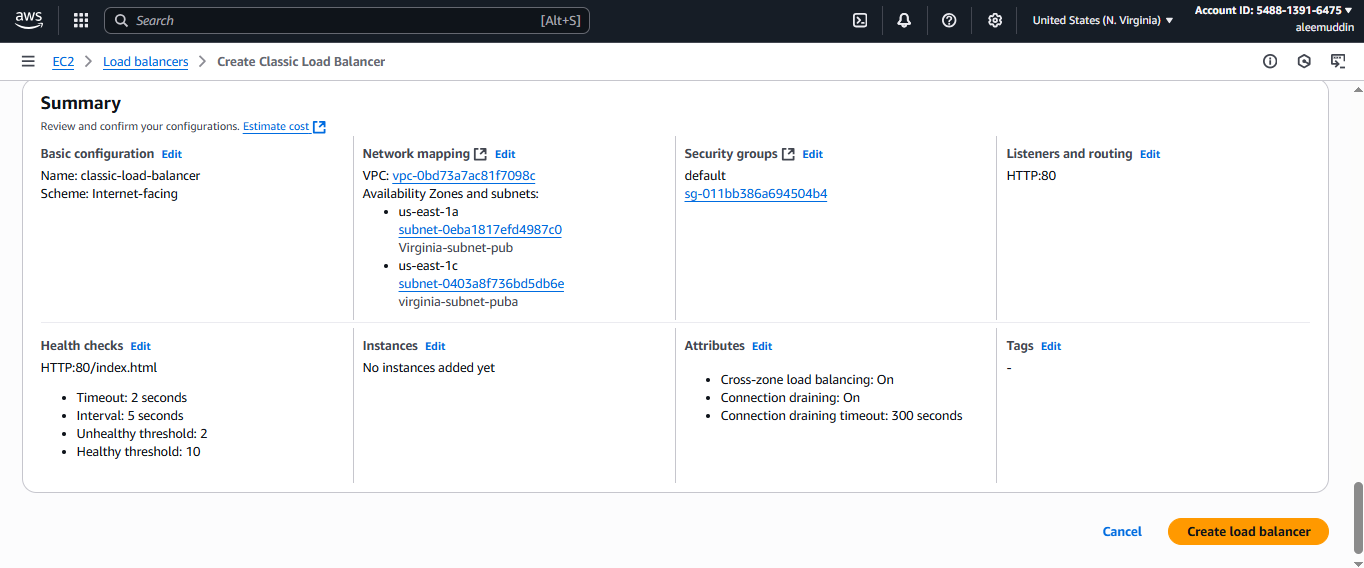
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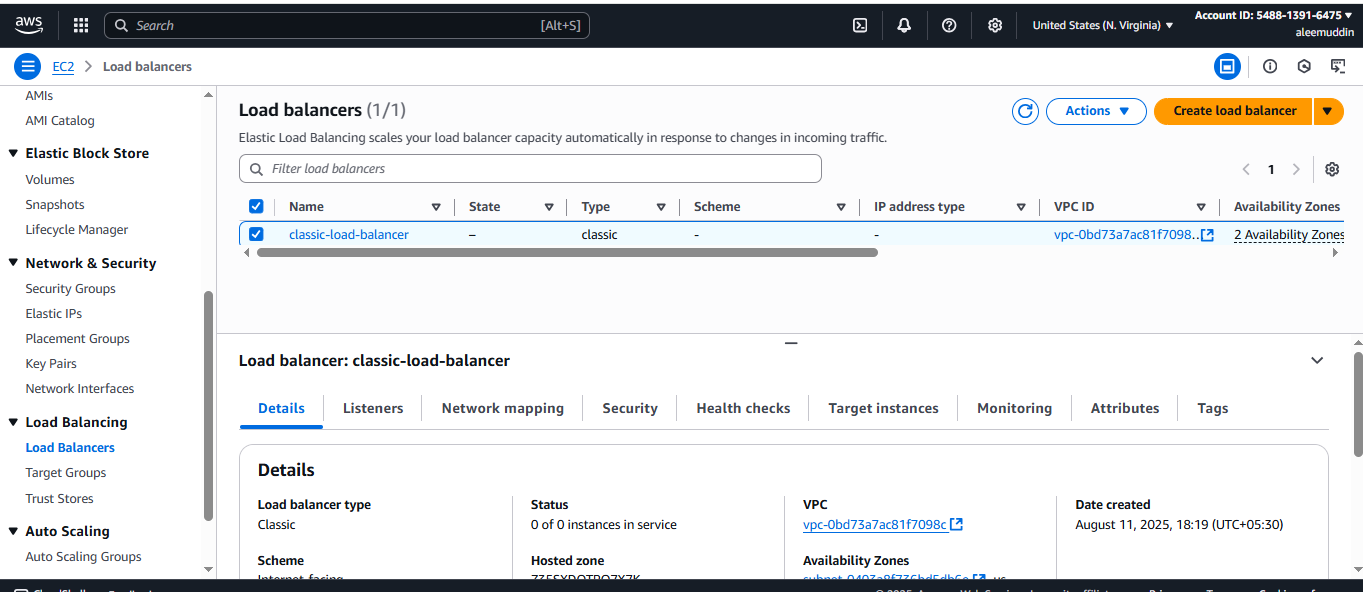
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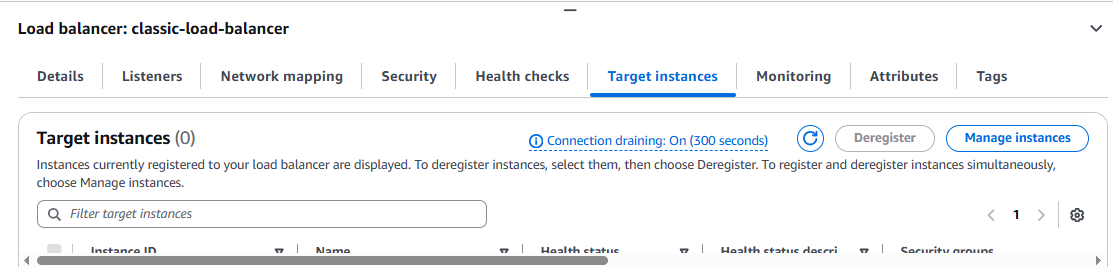
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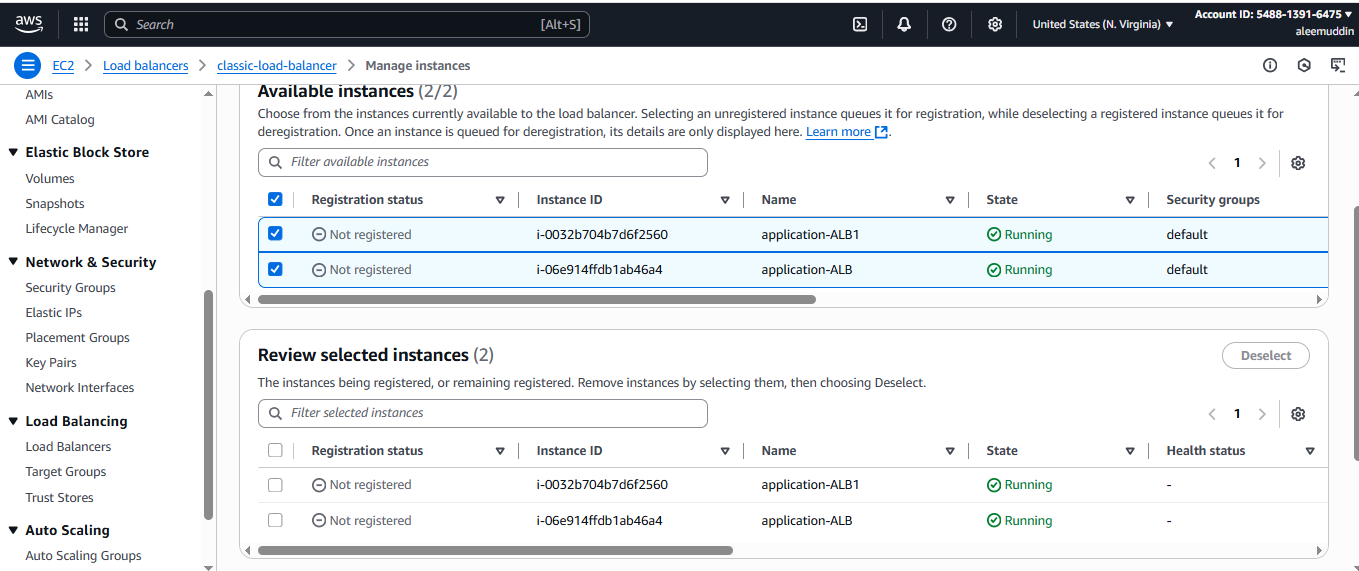
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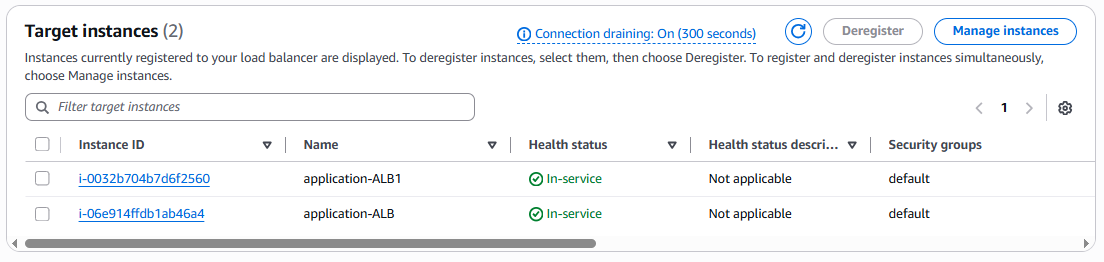
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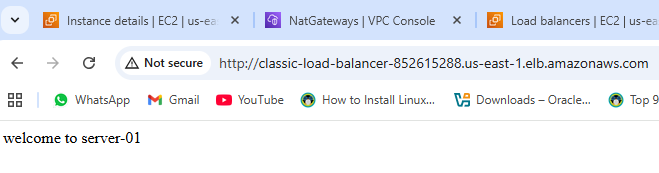
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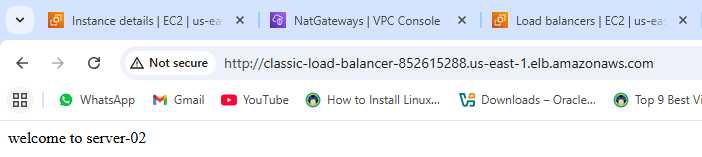
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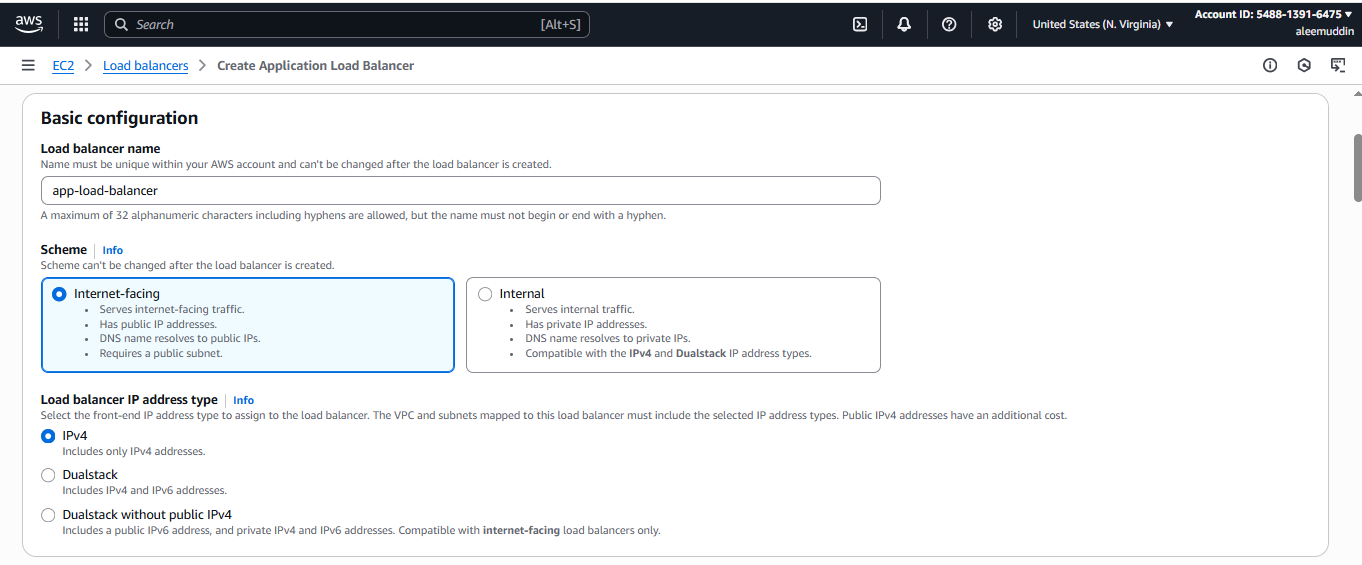
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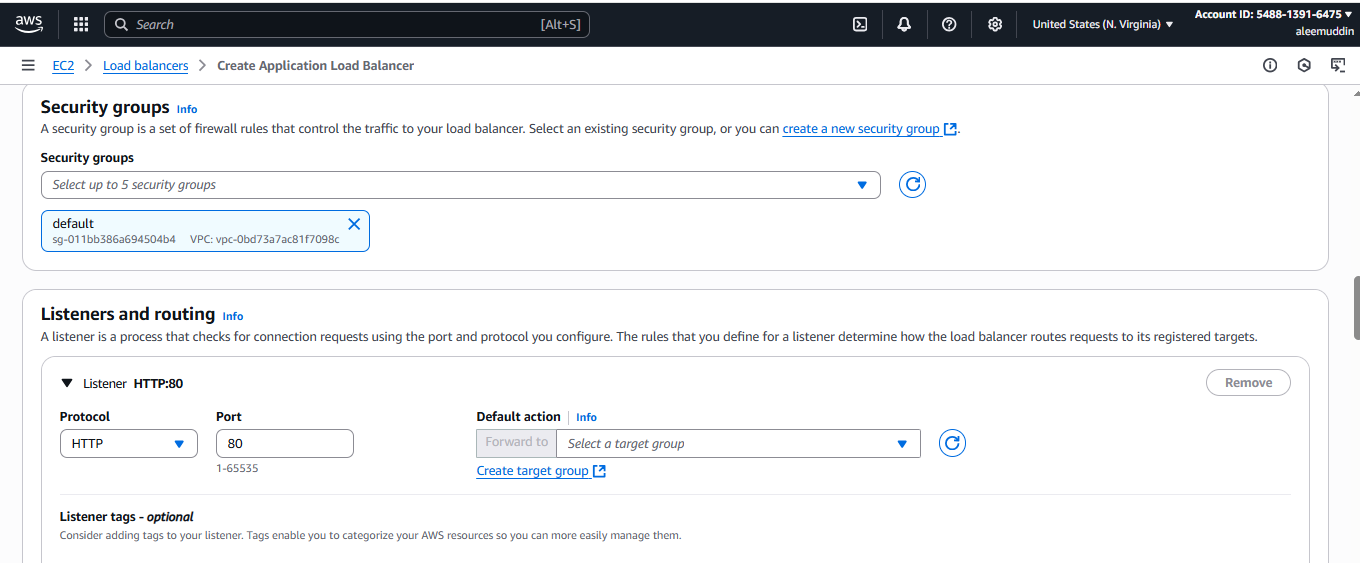
**2) Configure Application Load balancer.**

***(Modern — works on Layer 7)***

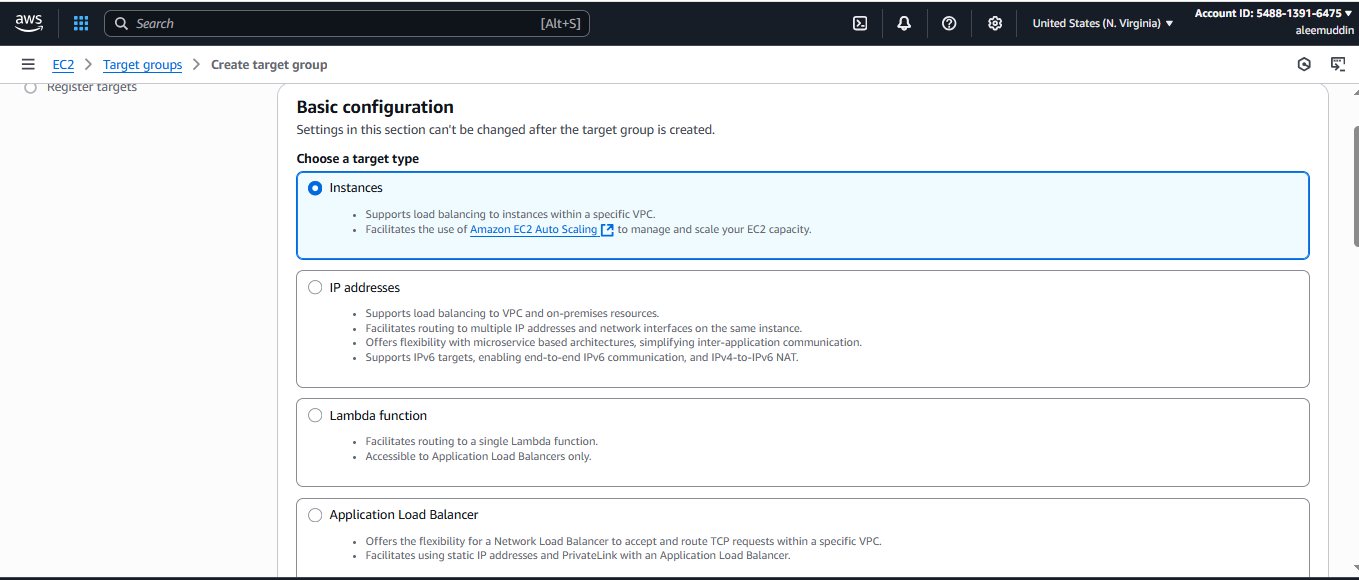
1. **Go to EC2 → Load Balancers → Create Load Balancer → Application Load Balancer.**
2. **Name it → Select Internet-facing → Scheme: IPv4.**
3. **Listeners:**
   * **HTTP (80) or HTTPS (443).**
4. **Availability Zones:**
   * **Select VPC and 2+ public subnets.**
5. **Security Groups:**
   * **Allow inbound HTTP/HTTPS.**
6. **Target Groups:**
   * **Create a new Target Group (type = Instances/IPs/Lambda).**
   * **Register EC2 instances.**
7. **Review & Create.**

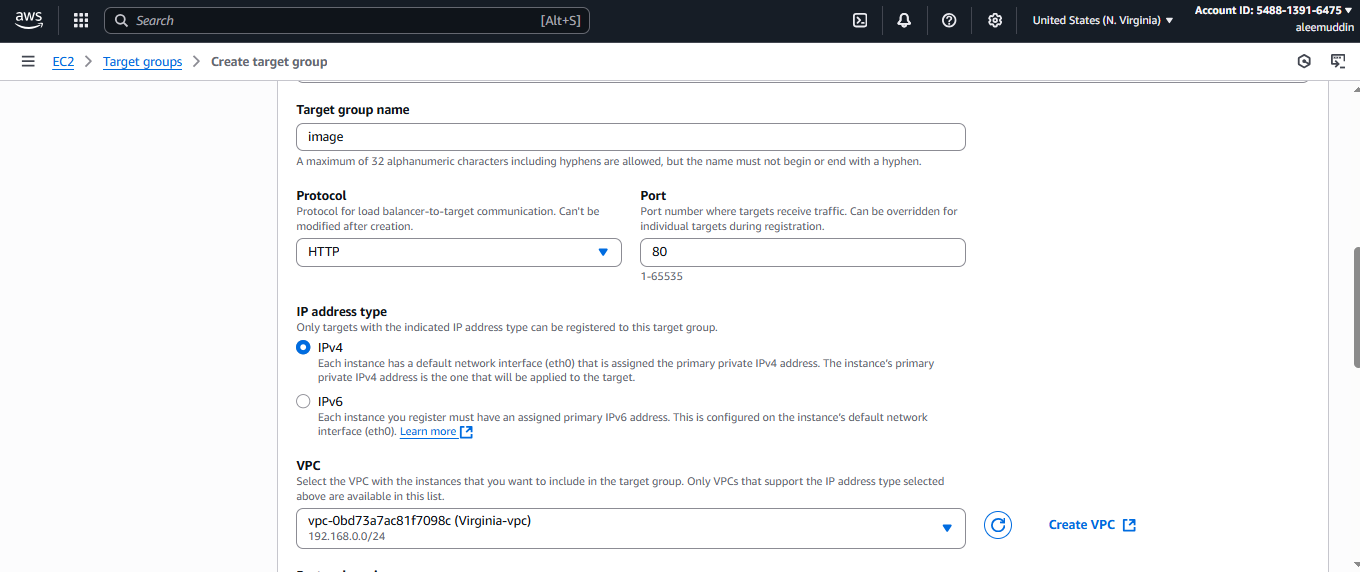
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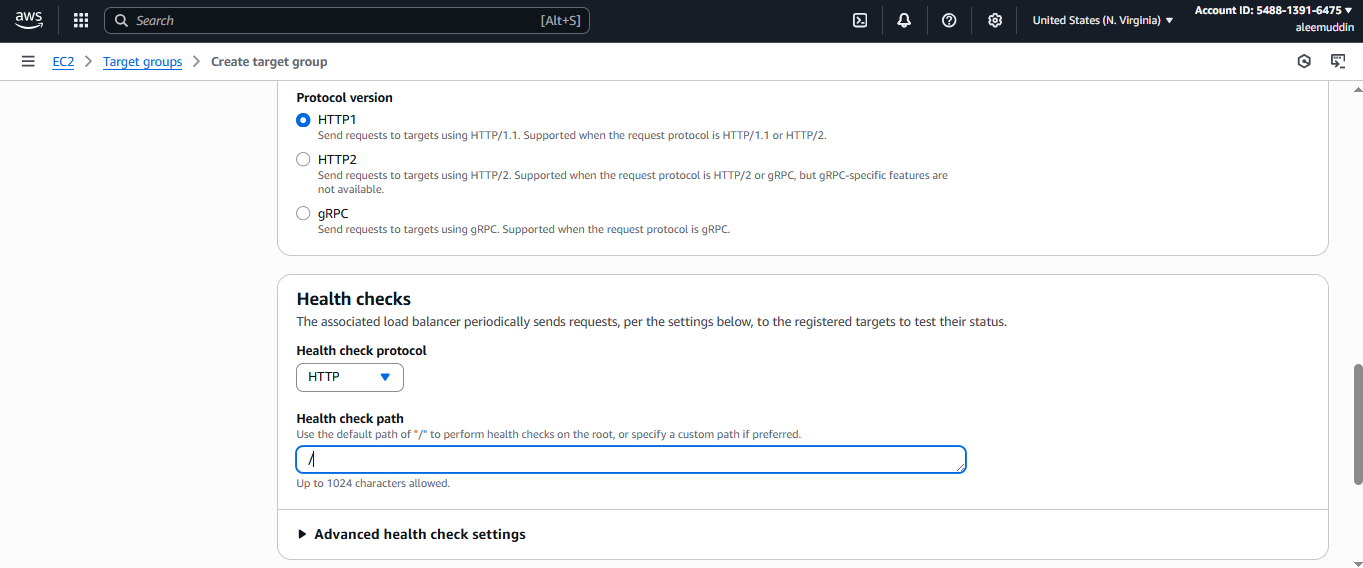
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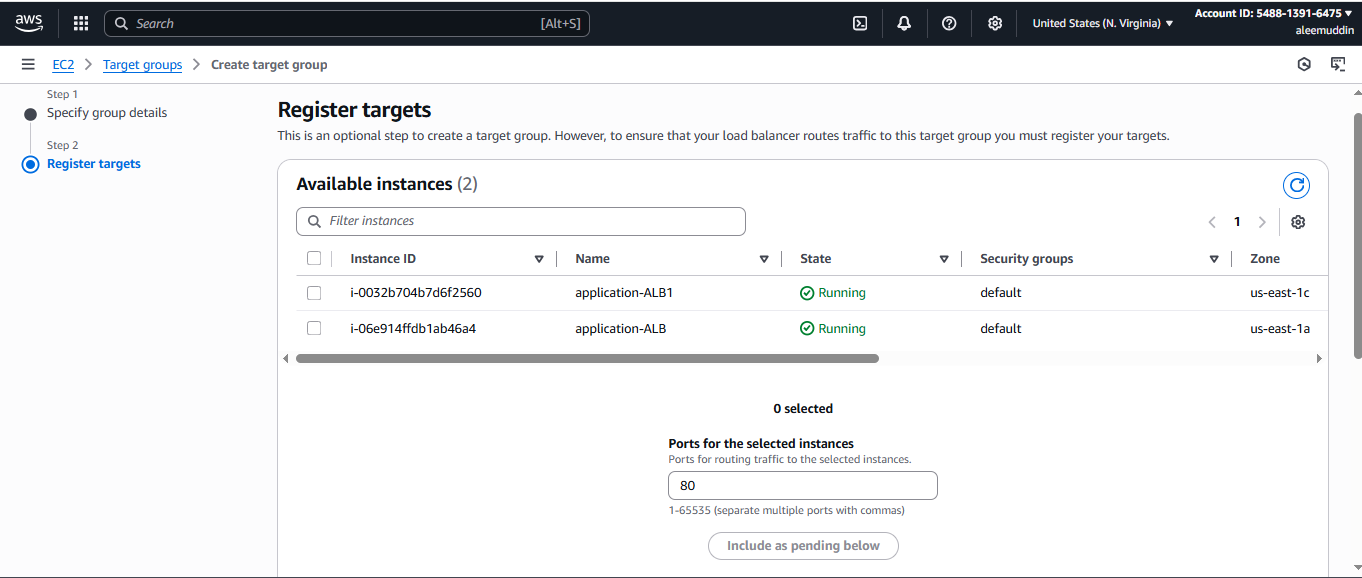
****

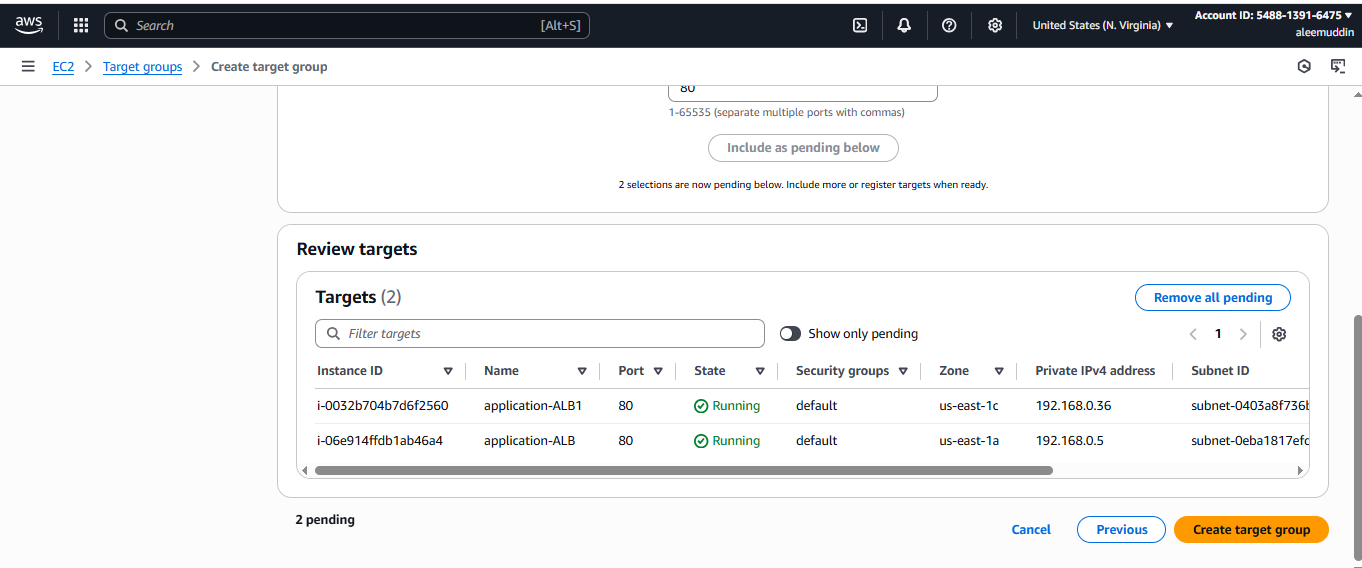
**Creating target group**

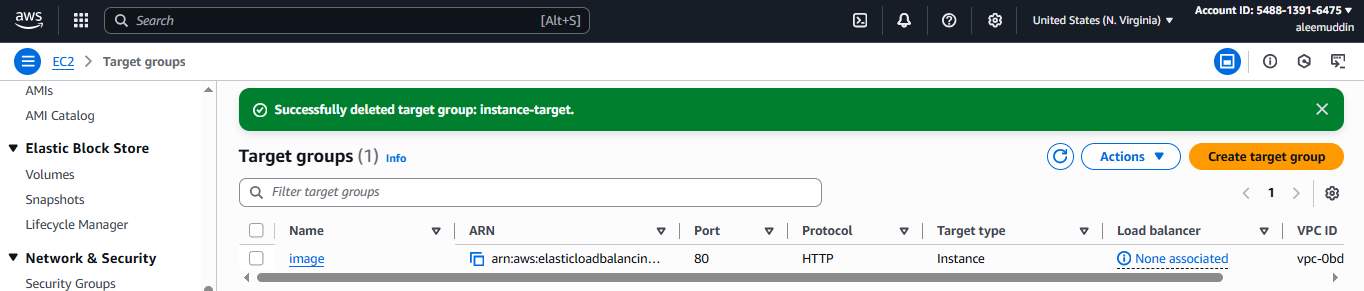
****

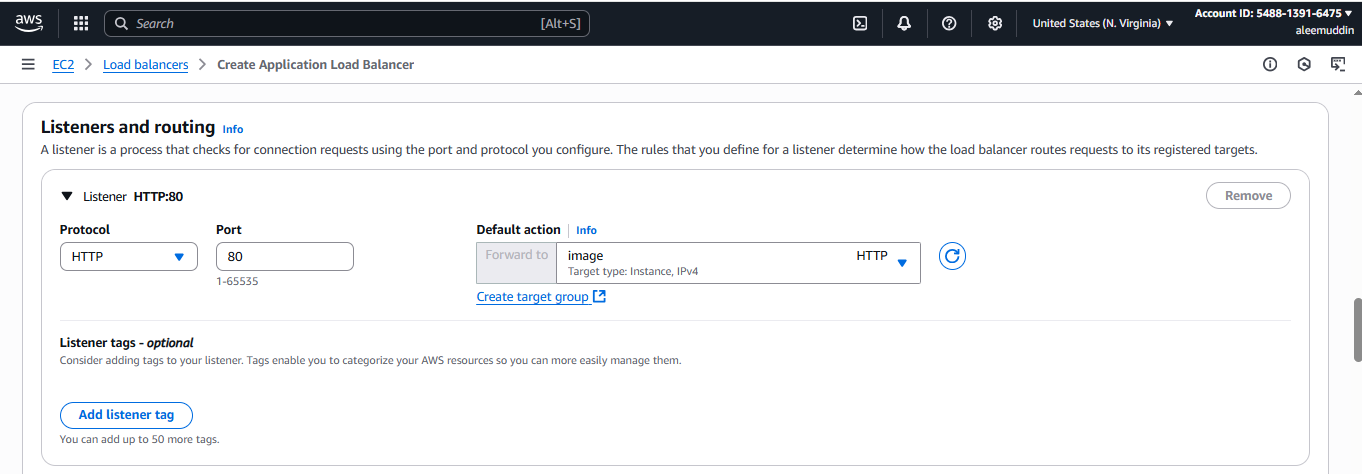
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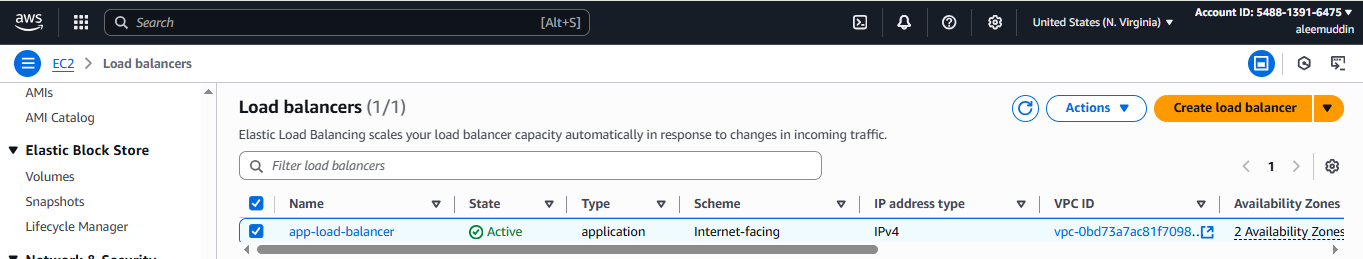
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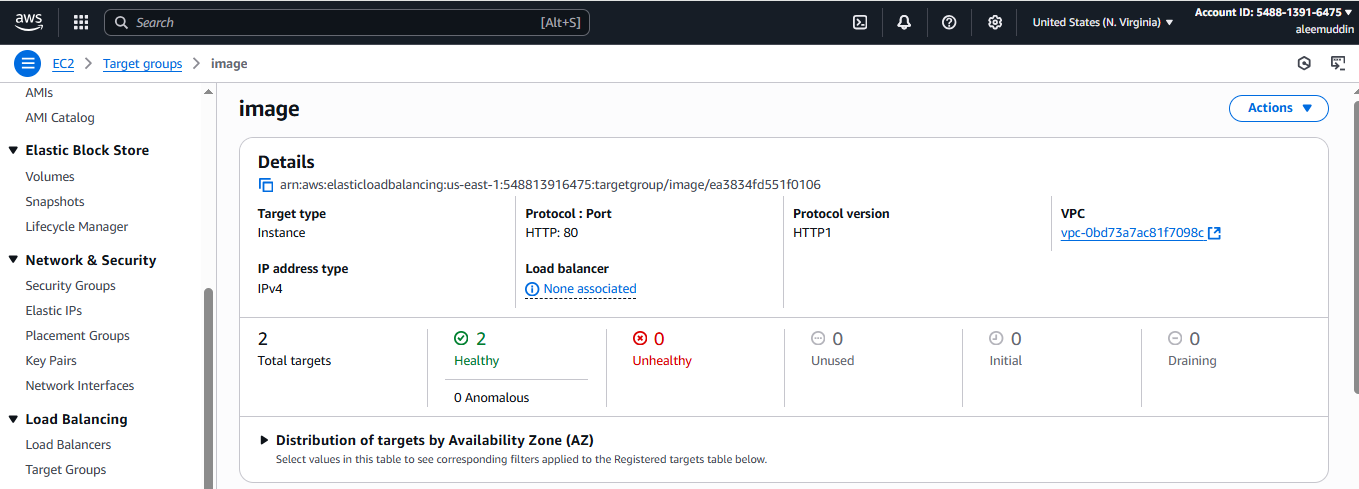
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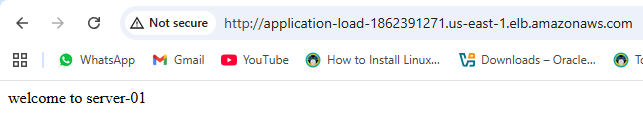
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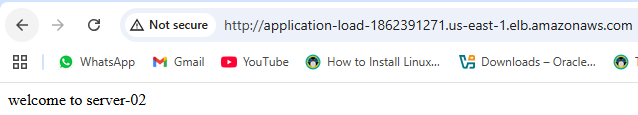
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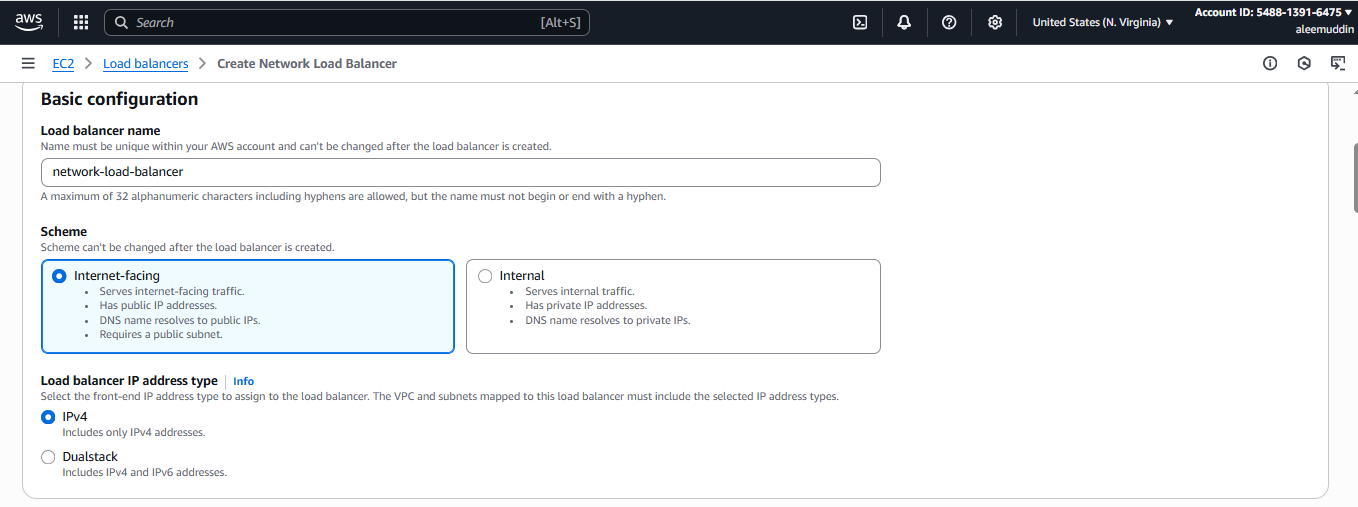
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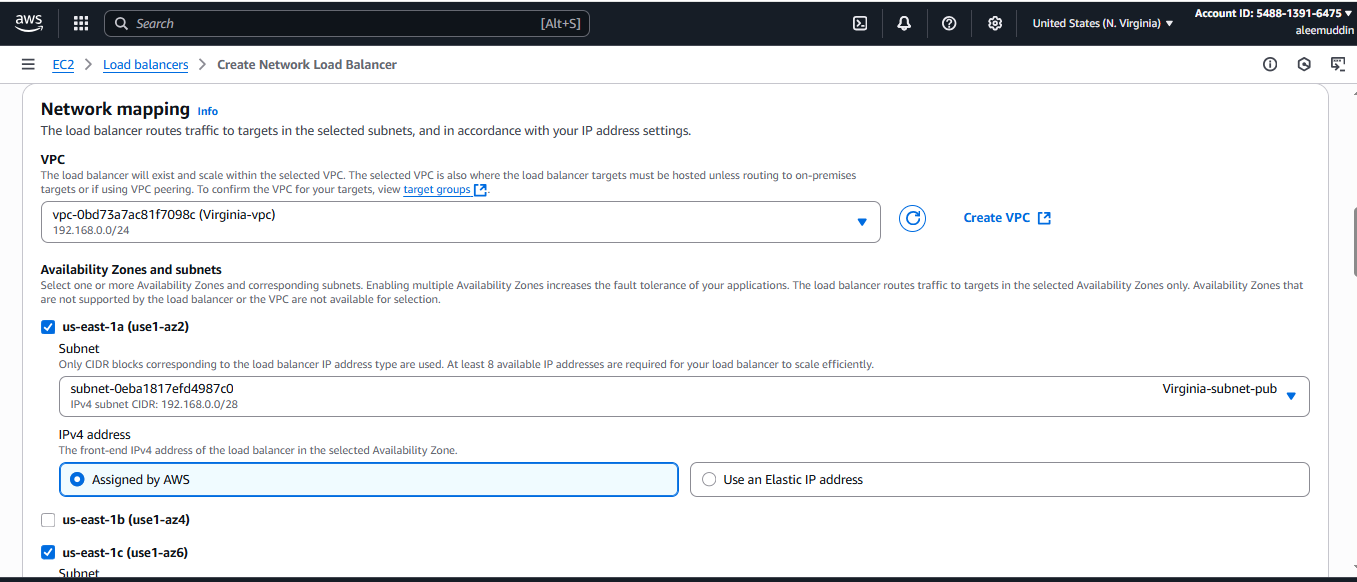
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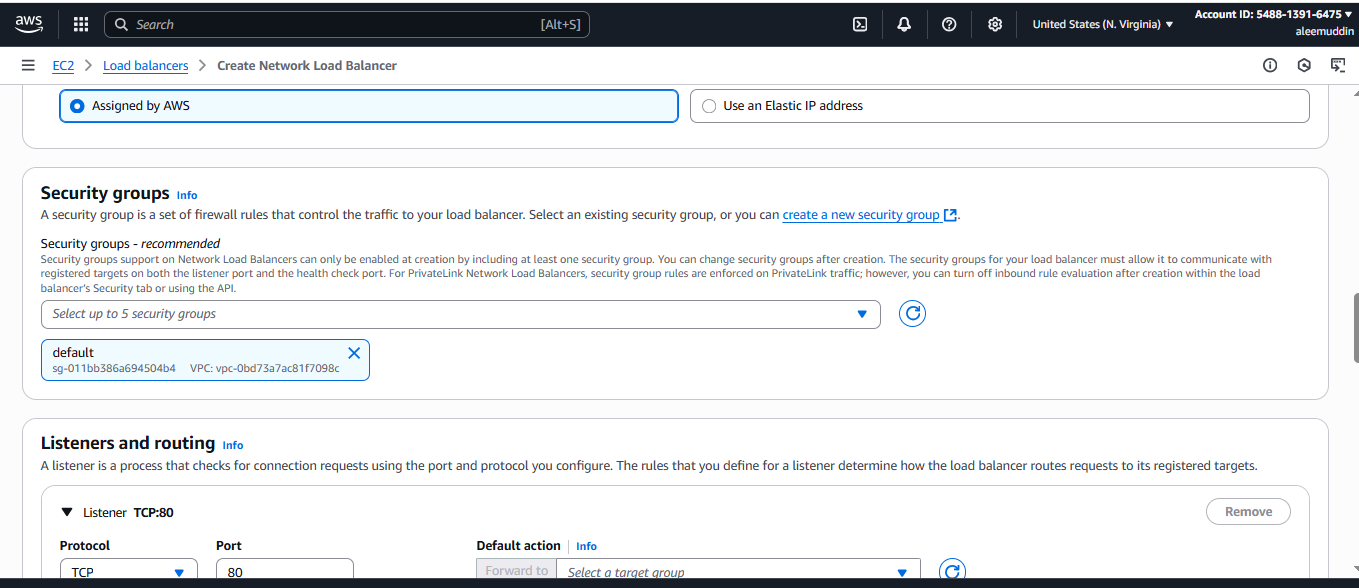
**3) Configure Network Load balancer.**

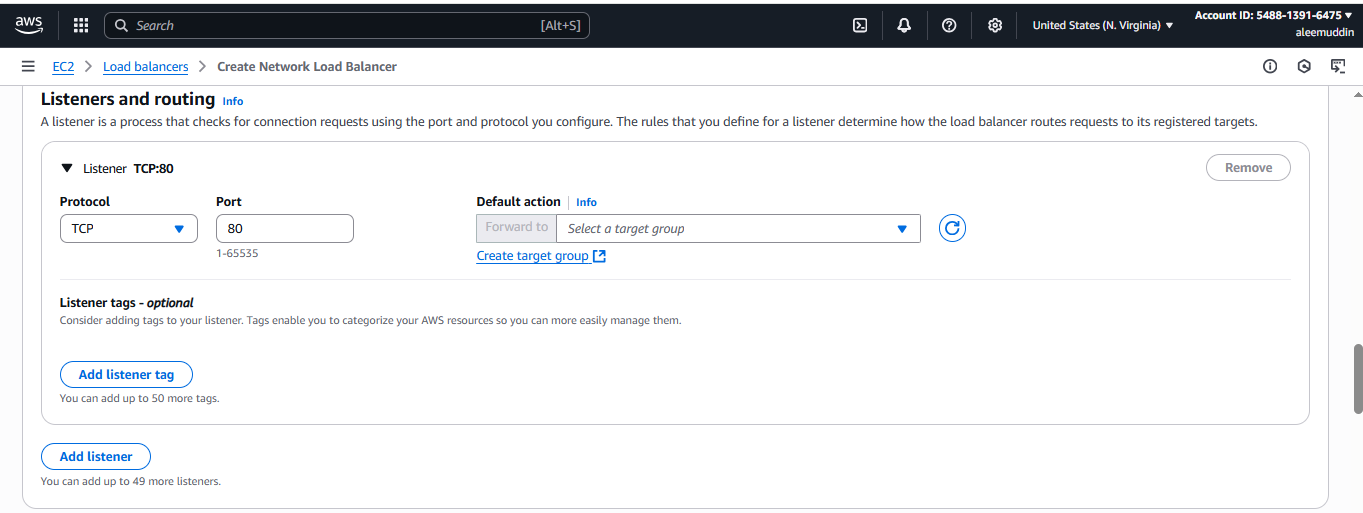
***(Layer 4 — TCP/UDP/TLS)***

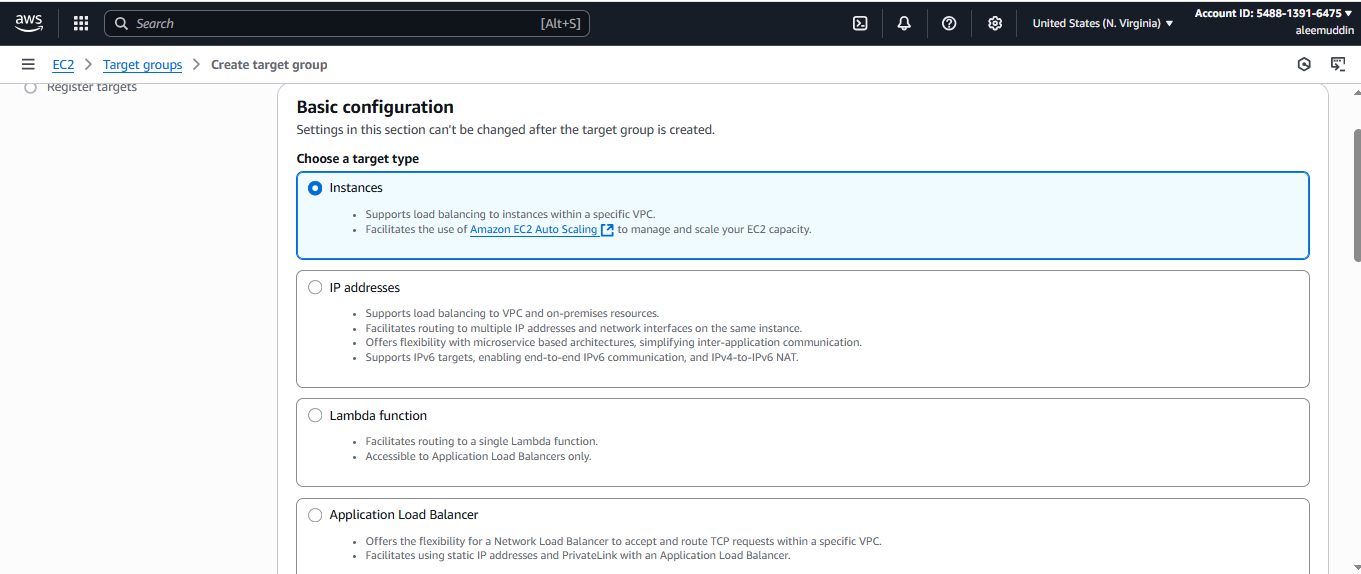
1. **Go to EC2 → Load Balancers → Create Load Balancer → Network Load Balancer.**
2. **Name it → Scheme: Internet-facing or Internal.**
3. **Listeners:**
   * **TCP/UDP/TLS ports.**
4. **Availability Zones:**
   * **Choose VPC and subnets (can assign static Elastic IPs).**
5. **Target Groups:**
   * **Create Target Group with type TCP/UDP.**
6. **Register EC2 Instances.**
7. **Review & Create.**

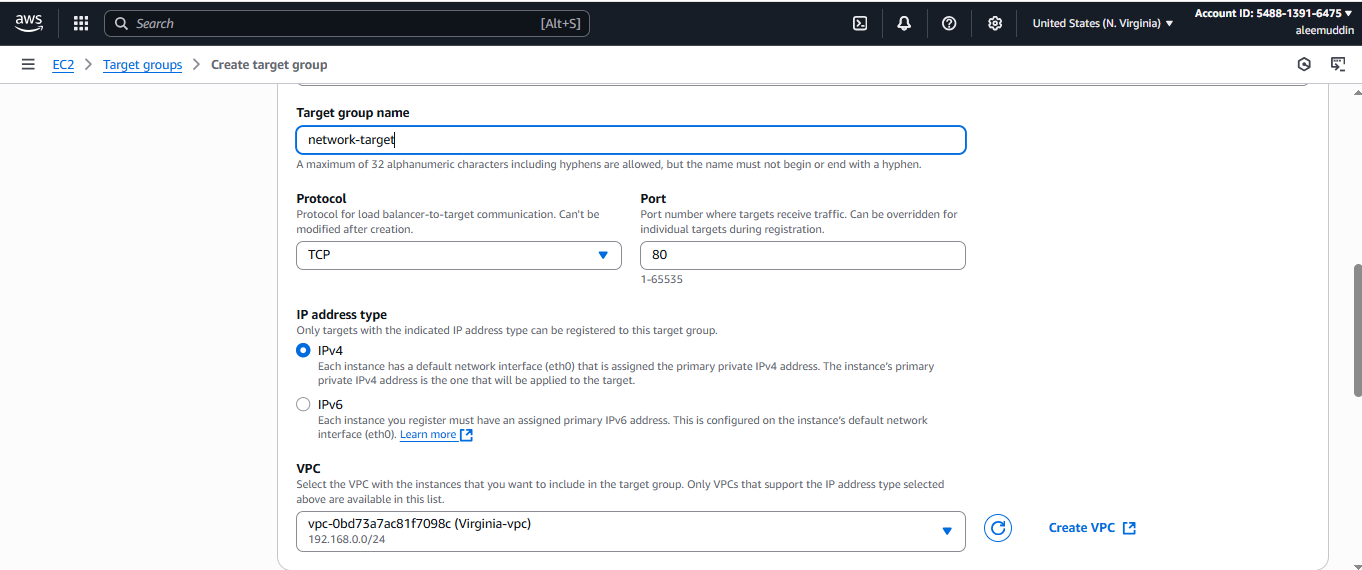
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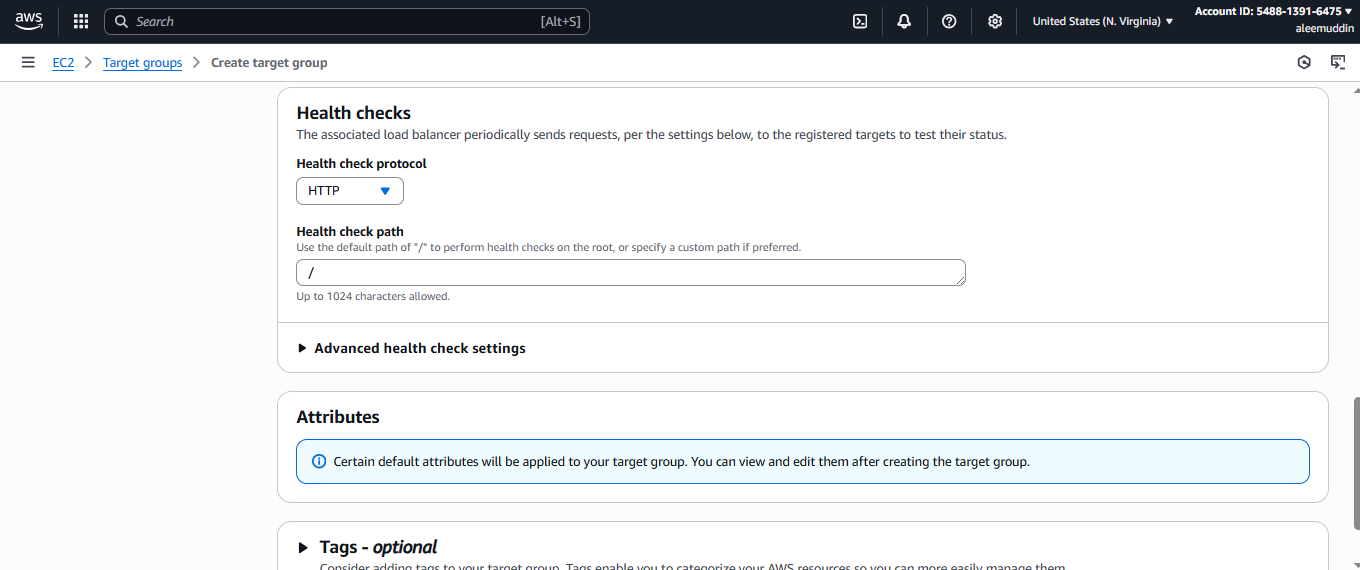
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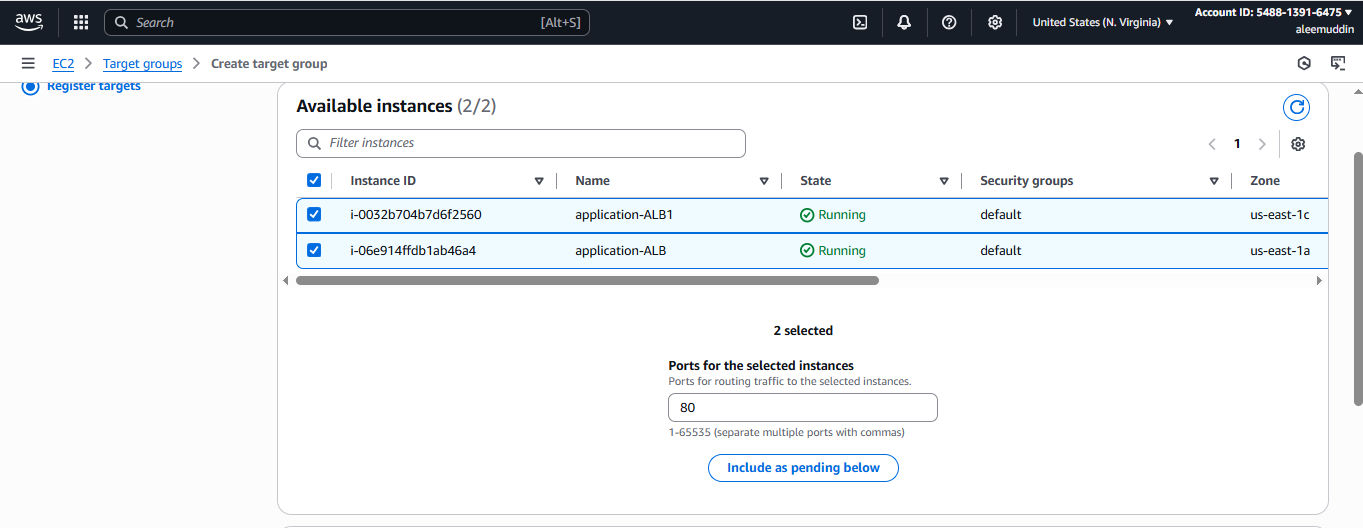
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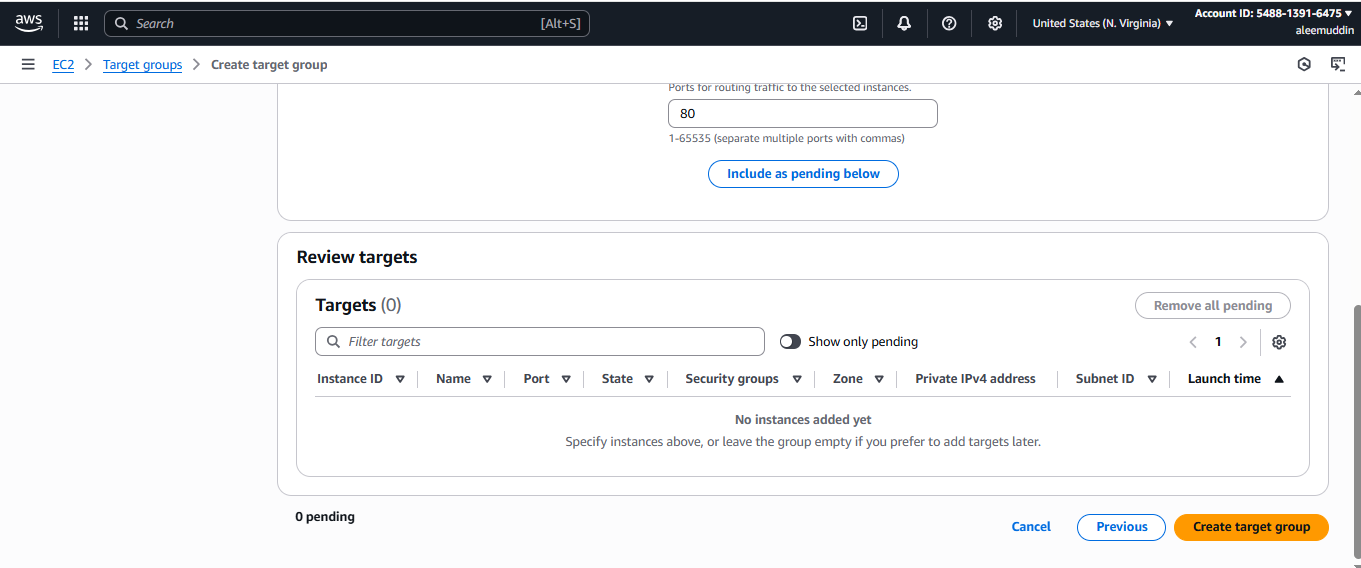
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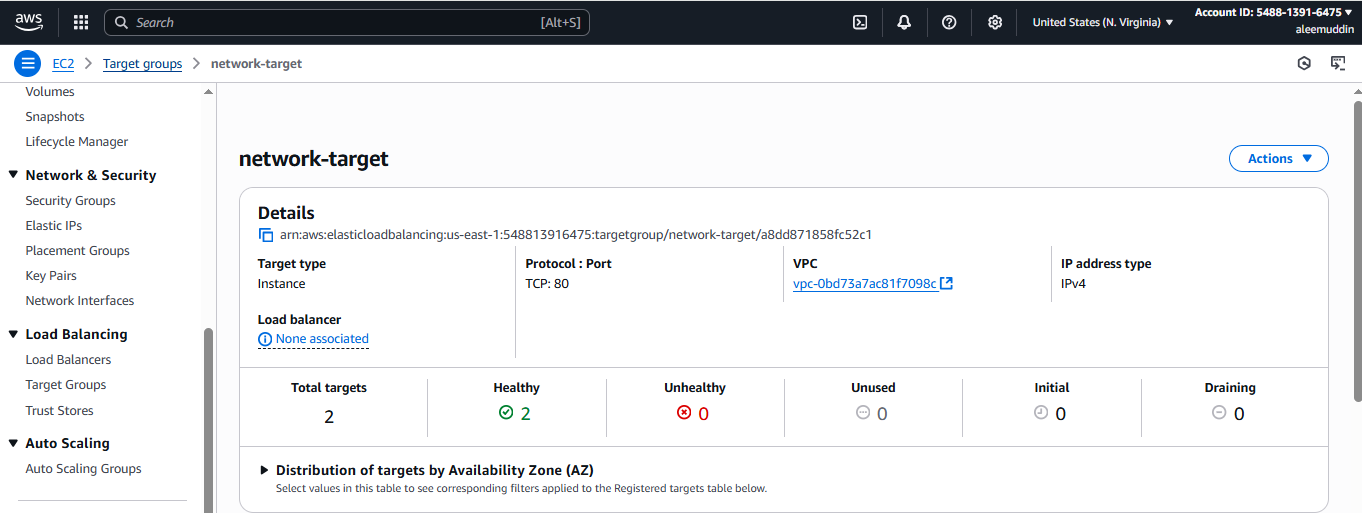
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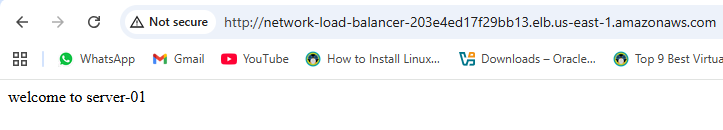
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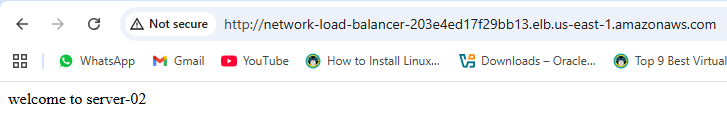
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**4) Attach SSL for application load balancer.**

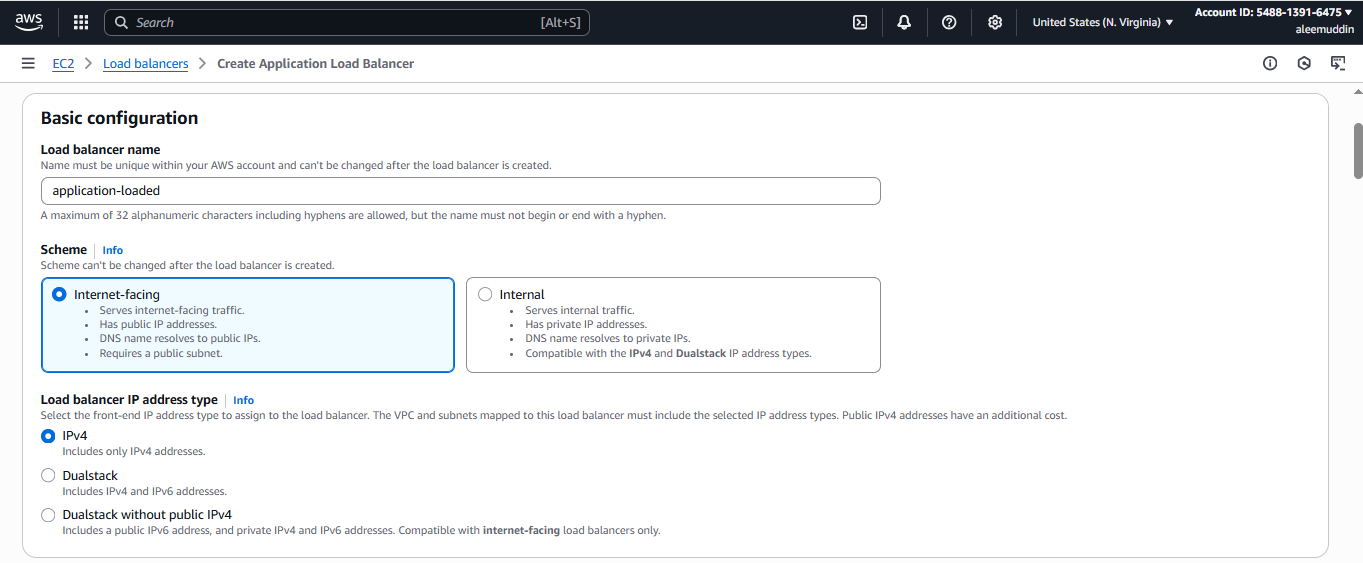
**Create SSL Certificate in AWS Certificate Manager (ACM):**

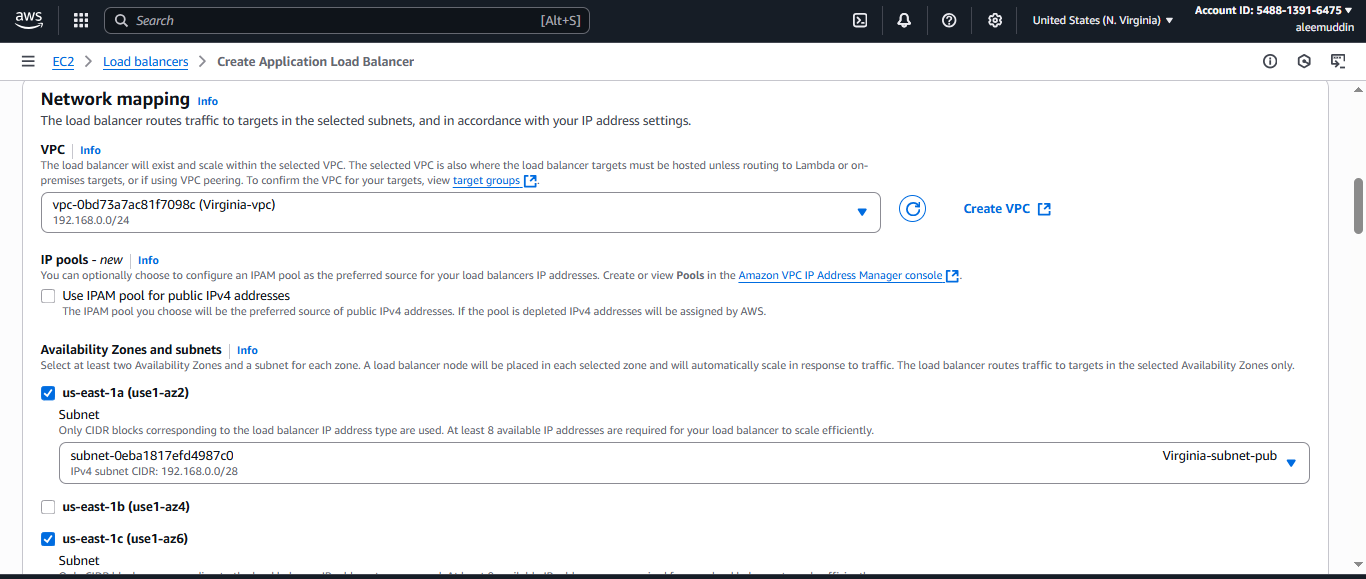
* **Request a public certificate for yourdomain.com and www.yourdomain.com.**
* **Validate via DNS or email.**

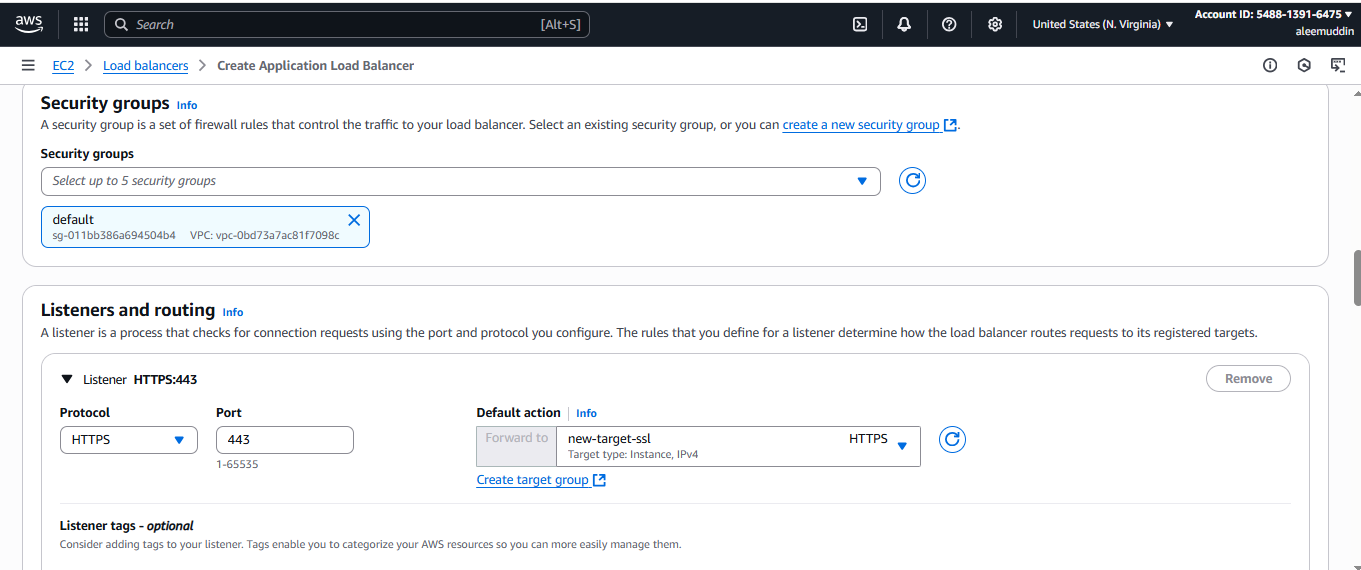
**Edit ALB Listener:**

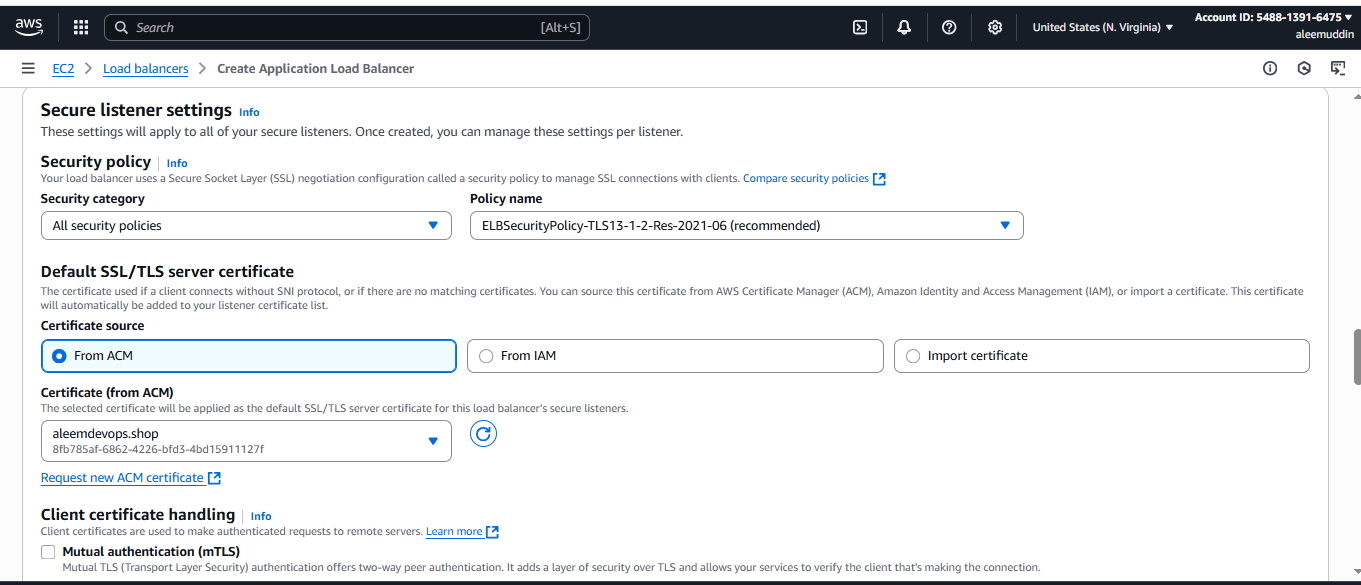
* **Add HTTPS (443).**
* **Choose the SSL certificate from ACM.**
* **Set default action to forward to your target group.**

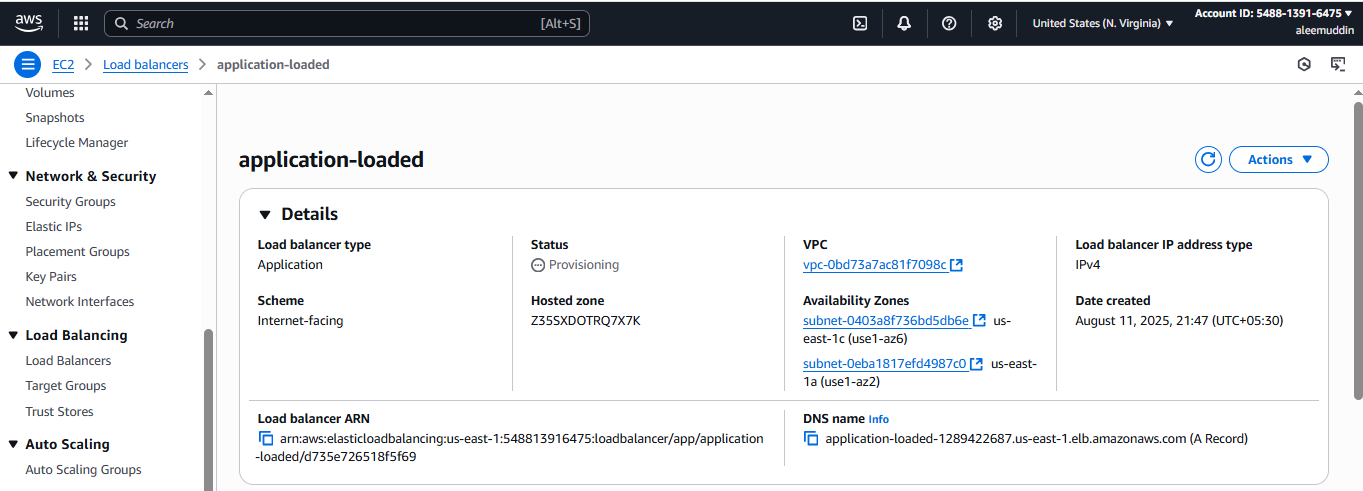
**Save Changes.**

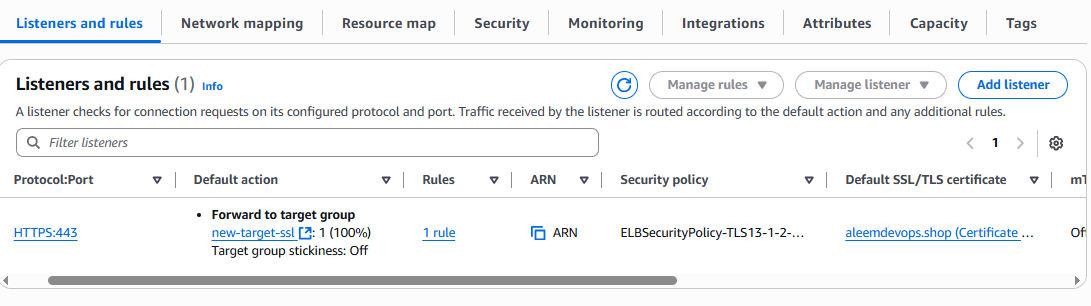
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**  
5) Map Application load balancer to R53.**

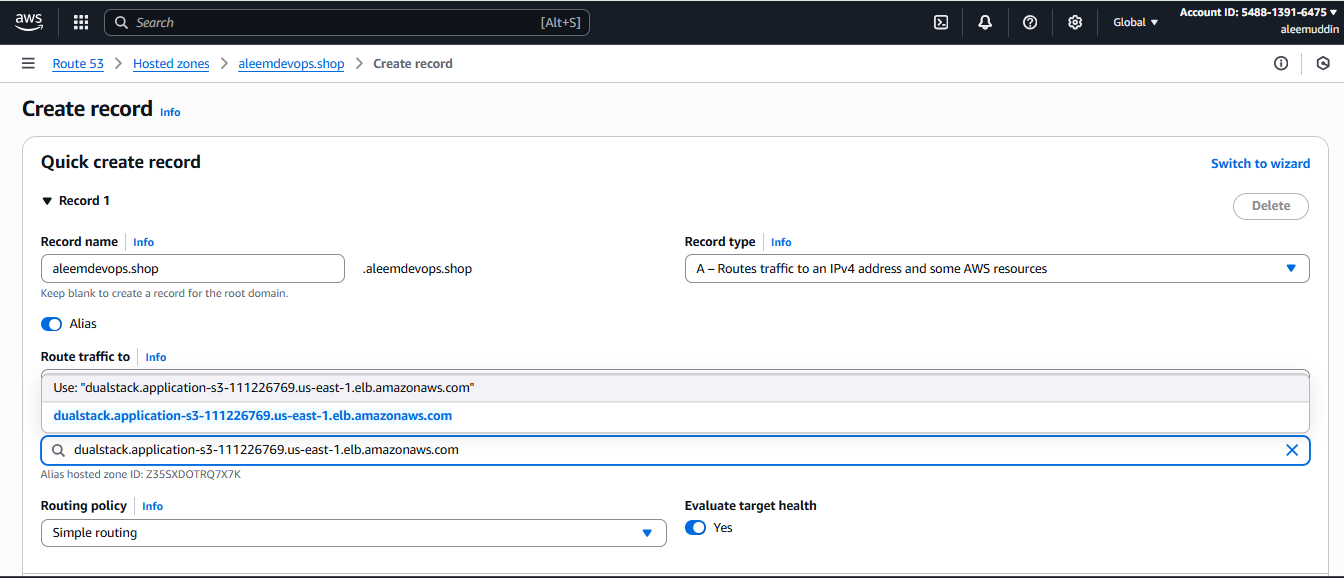
**Go to Route 53 → Hosted Zones → Select your domain.**

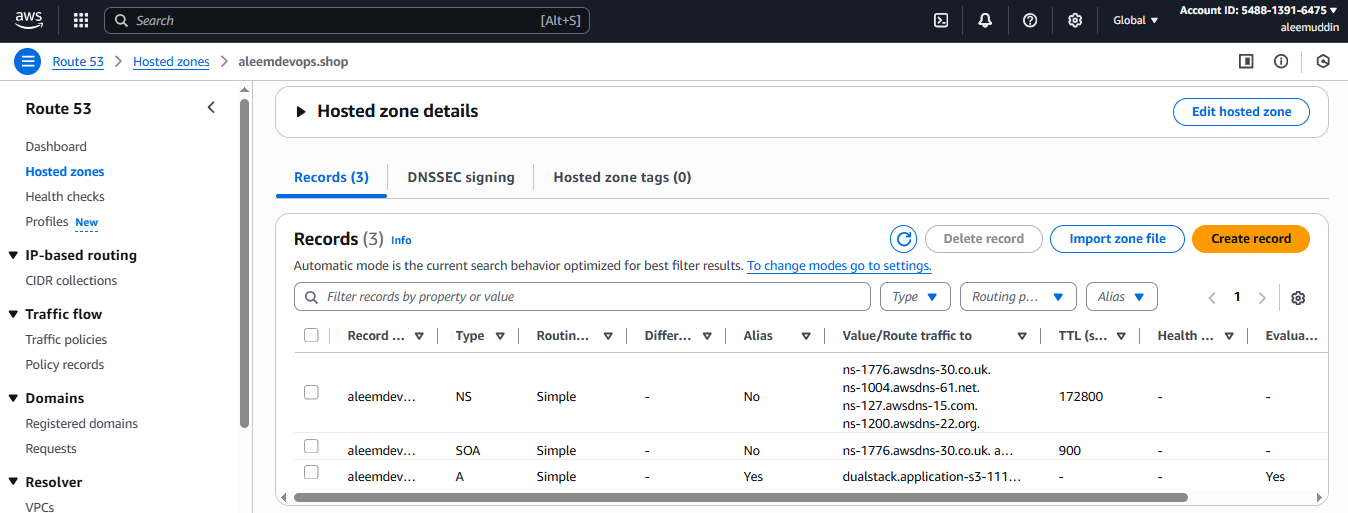
**Create Record:**

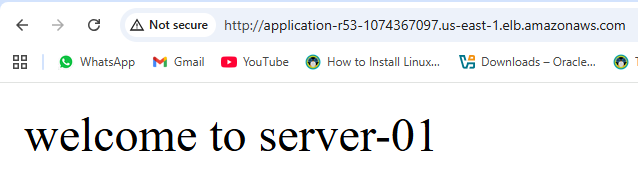
* **Record type: A (Alias).**
* **Alias: Yes.**
* **Select your ALB from the drop-down list.**

**Save Record.**

**Now, yourdomain.com will point to the ALB.**

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**6) Push the application load balancer logs to s3.**

**Create S3 Bucket:**

* **Example: alb-logs-myapp.**
* **Disable public access, enable versioning if needed.**
* **Create policy → got to permissions → edit bucket policy.**

**{**

**"Version": "2012-10-17",**

**"Statement": [**

**{**

**"Effect": "Allow",**

**"Principal": {**

**"AWS": "arn:aws:iam::127311923021:root"**

**},**

**"Action": "s3:PutObject",**

**"Resource": "arn:aws:s3:::imran-s3-alb-logs/AWSLogs/483591332684/\*"**

**}**

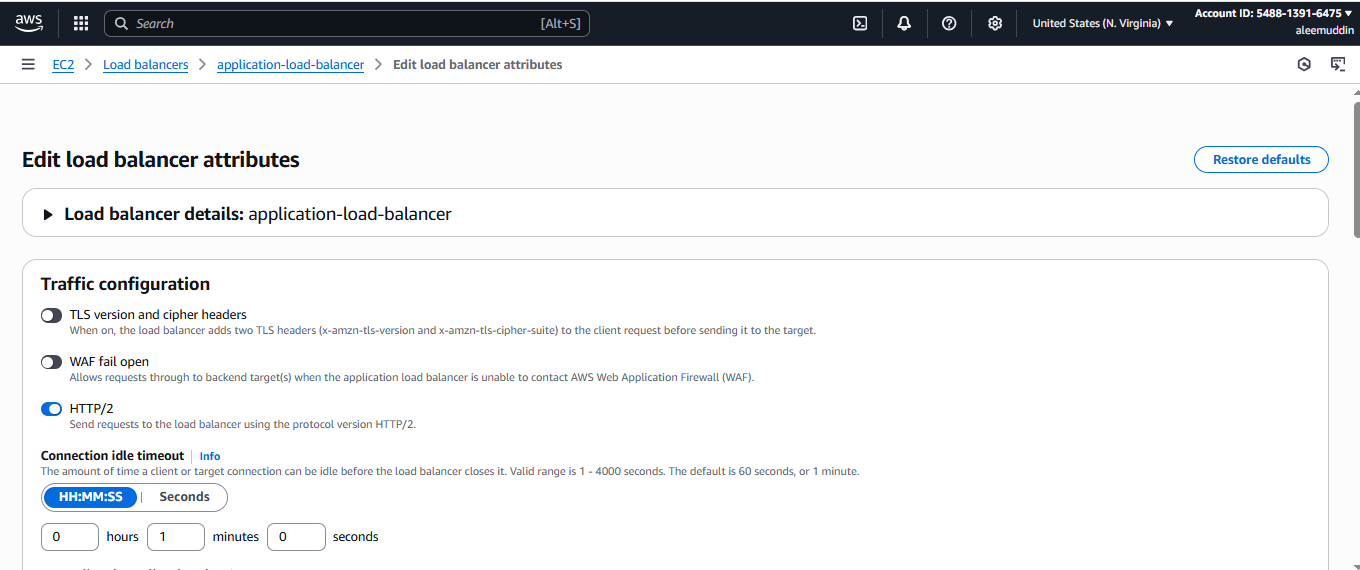
**]**

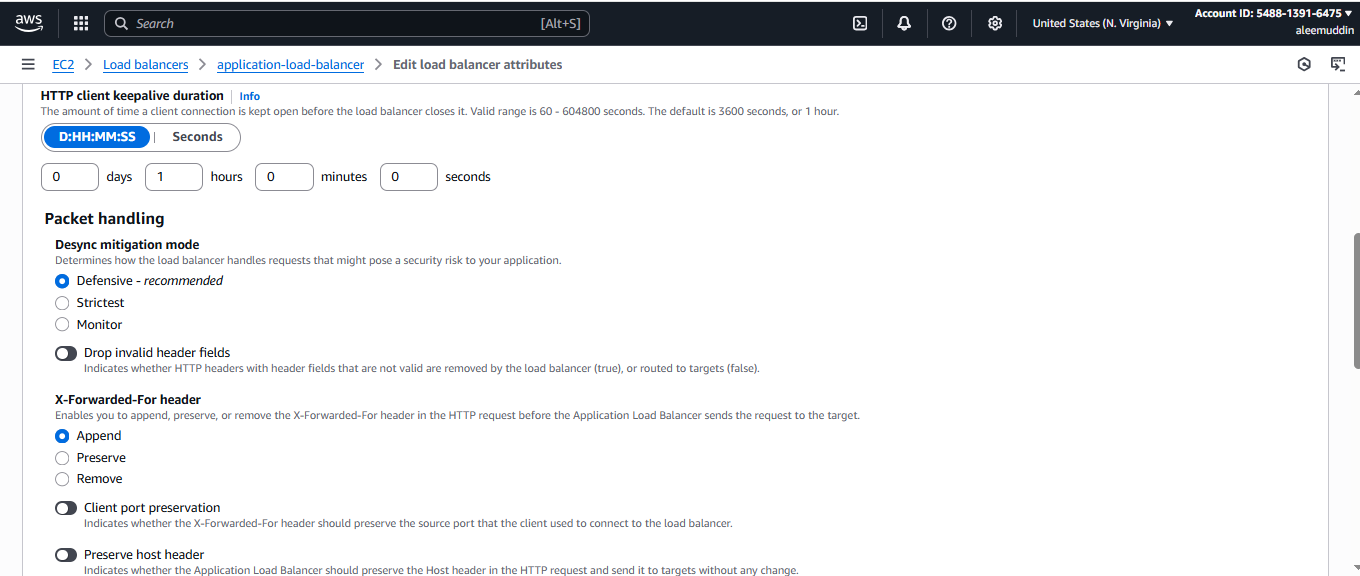
**}**

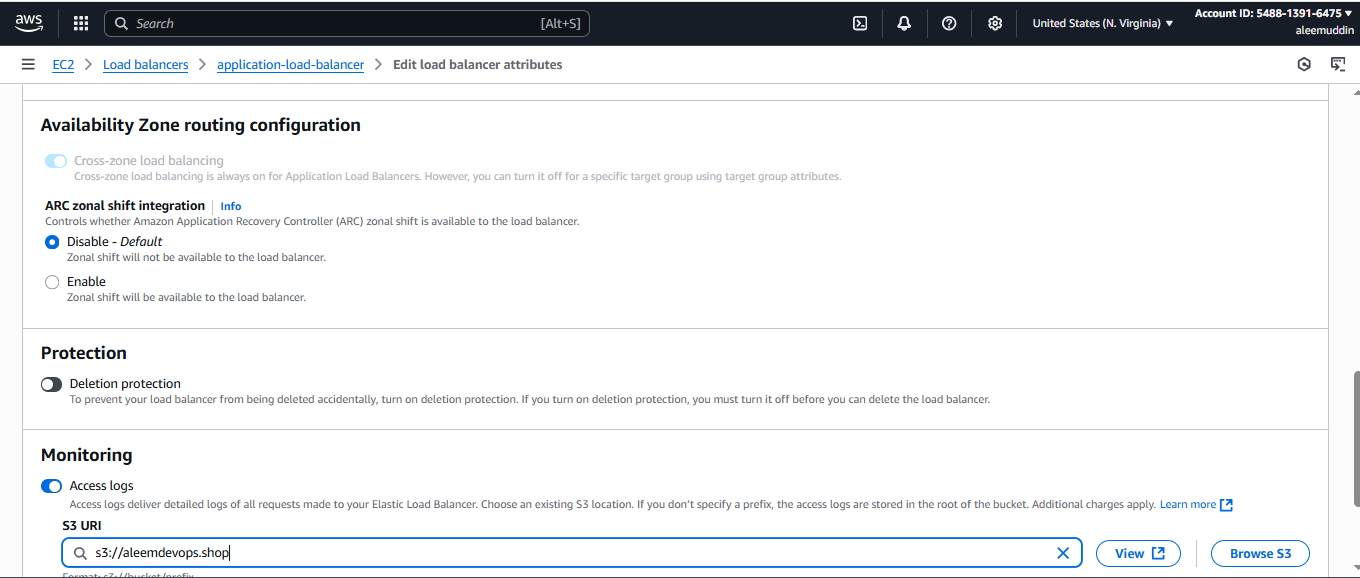
**Enable Logging in ALB:**

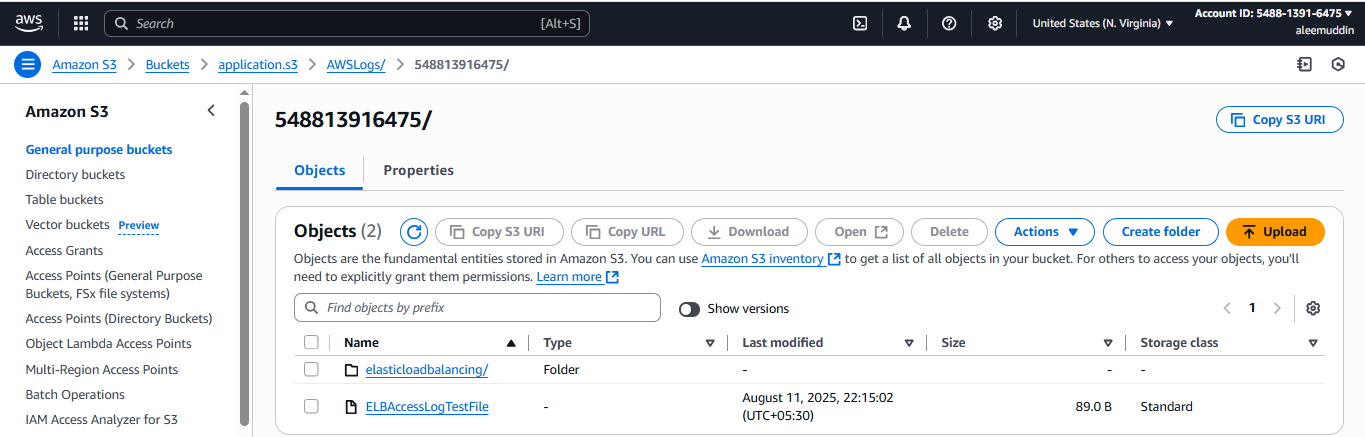
* **Select ALB → Attributes tab → Edit → Enable Access Logs.**
* **Choose the S3 bucket.**
* **(Optional) Set a prefix for logs.**

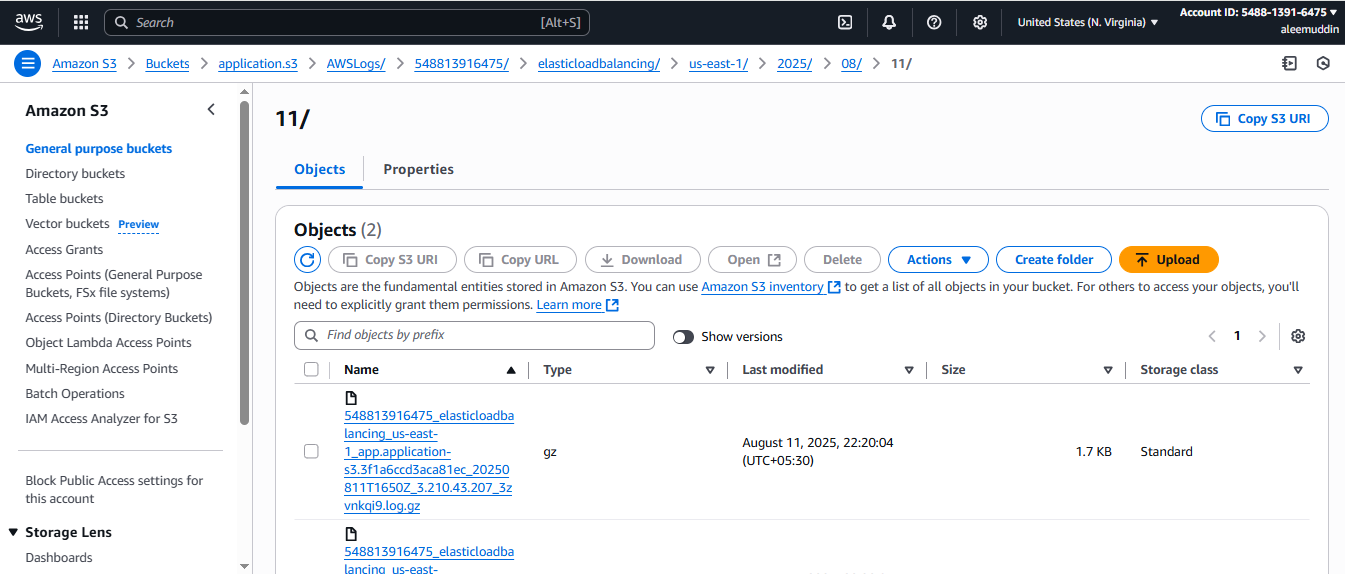
**Save — Logs will start appearing in S3 in ~5 minutes.**

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