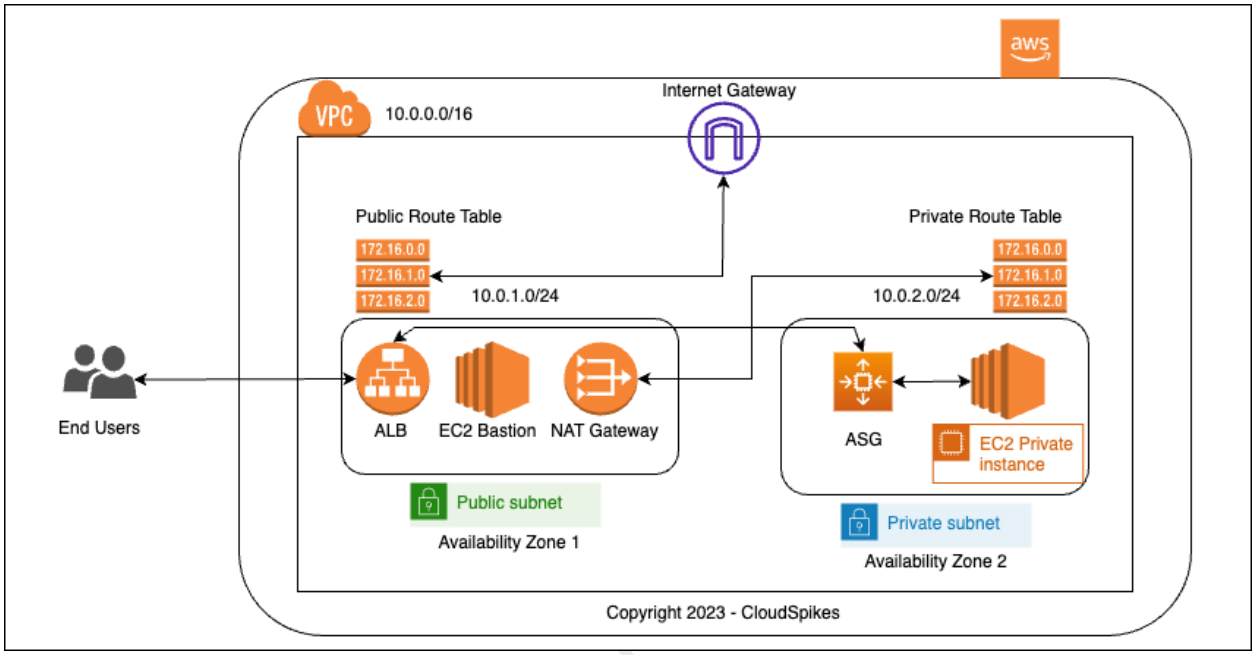
#7 Task: Define Launch Template for your Private EC2 Instance & configure ASG using it.



1. Create an EC2 Launch Template.

Create an EC2 Launch Template with a few basic details such as:

- **AMI (Ubuntu - ami-007855ac798b5175e)**,
- Select instance type as **t2.micro** to save cost,
- Select an existing **Key Pair** or create a new one,
- Select the network configs by selecting the created **VPC and its private subnet**.

2. Create an ASG using the Launch Template created before.

Go to Auto Scaling Group and create an ASG with the below configs:

- Provide the name and choose launch template created in step #1.
- Select the network configs by selecting the created **VPC and its private subnet**.
- Attach a new ALB or you can select an existing ALB.
- You can configure the ALB similarly how we did in Lab work #6.
- Go next and keep the default settings as is till notifications tab.

- Now, you can set the min, max and desired instance count which will set your ASG Scaling abilities based on the metric configs you provide i.e., Scaling policy set to **50% of the Avg CPU Utilisation** or any other metrics based on which you want to scale your application based on the application needs.
- In the Notifications tab, you can select an existing or create a new SNS topic with all the ASG event selection to keep the subscribed users of the SNS topic updated about any change in the ASG configs.
- Attach tags, review all the settings and hit create button at the end.

3. Wait till the instances comes up healthy as per the min/desired instance count.

Keep an eye on the ALB Target Group to identify the correct verification time when the ALB targeted EC2 instance which are spun via ASG configs comes up healthy, running and SSH reachable.

Once, the EC2 instance is SSH reachable, you can setup an Apache or Nginx web server as per the steps given in Lab work #5. Finally, after checking Aapche/Nginx service status from the EC2 bash/shell/terminal you can now hit the ALB DNS name (A record) to verify the default Apache/Nginx web page.