

## CLOUD CONCEPTS (LAB EVALUATION [5 Marks (Absolute)])

(EC2 (Apache Web Server)– ELB (ALB)- AGS)

### TASK: Access the server through Application Load Balancer in AGS

You must be familiar with the terms listed below. Follow the steps to create ones as covered. If you don't have the following already existing, create the new ones.

- Key pair
- Security Group
- Target Groups
- Load Balancer
  - Attach Application Load Balancer with Automatic Scaling Groups (Create LB and AGS side by side)

Follow the steps:

1. Launch instance EC2 with Linux AMI and Apache server installed using bootstrap script.
  - a. Bootstrap code in user data
  - b. Security groups with proper inbound and outbound rules
  - c. VPC must be default.
  - d. Ensure High availability.
  - e. Instance type must be free tier (t2 micro with default storage)
  - f. Tag the servers if you have multiple server instances.
  - g. Attach the key pair file as required (.pem or .ppk)
2. Create more servers to register with Load Balancer.
  - a. You can create/launch the server from scratch or launch the servers using AMI image (copy)
3. Now launch Load Balancer
  - a. Set the name and configurations.
  - b. Ensure high availability.
  - c. The load balancer must be Application Load Balancer
4. Create Target Groups
  - a. Register created Server with Target Groups under created ALB.
  - b. Set the name and other values.
5. Create Auto Scaling Group.
  - a. Set max, min and desired servers' count.
6. Configure Security Group for LB
  - a. **PUBLIC IP must not be used instead servers must be accessed through Load Balancer.** For this go to inbound rules and set the source to Load Balancer IP and attach the security group of load balancer on port 80.