

# **Application Load Balancer Deployment on AWS**

## **1. Project Summary**

This document outlines the process of setting up an Application Load Balancer (ALB) on AWS to host a static website built with HTML and CSS. The ALB is used to evenly distribute web traffic among multiple EC2 instances, enhancing both availability and system resilience.

## **2. Tools and Technologies**

- Amazon Web Services (AWS)
- EC2 Virtual Machines
- Application Load Balancer (ALB)
- Target Groups
- HTML and CSS

## **3. Implemented Features**

- Launched and configured three separate EC2 instances.
- Hosted a basic HTML/CSS website on each instance.
- Created a Target Group and registered all EC2 instances.
- Configured an Application Load Balancer linked to the Target Group.
- Tested the setup using the Load Balancer's DNS endpoint.
- All EC2 instances displayed a healthy status in the ALB monitoring panel.

## **4. Load Balancer Access Link**

- <http://load1-373467712.us-east-1.elb.amazonaws.com/>

## **Final Thoughts**

This setup showcases how to design and operate a scalable, fault-tolerant web infrastructure using AWS. Employing a load balancer to manage traffic flow ensures improved reliability and continuous service availability—an essential method for cloud-based, production-level deployments.

