# Lab: Building a Scalable Application Using AWS Services

## Objective

Deploy a multi-tier, auto-scaling application with caching and event processing.

## Part A: Console Steps

1. Create a Load Balancer and Auto Scaling Group

2. Create an SQS Queue and SNS Topic

3. Deploy an API Gateway with Lambda backend

4. Add CloudFront in front of application

## Part B: Terraform Steps

1. Deploy EC2 with ASG + ALB

2. Add Lambda + API Gateway

3. Attach CloudFront and configure caching

## Validation

- Test load generation across tiers

- Monitor performance in CloudWatch

- Check event propagation in SQS