Load Balancer

Internal or internet based

**Listeners**

**LB Gets the incoming request using the http / https protocol mentioned in listener**

**Target group**

**Instance / IP /lambda fnc**

**Choose port for connection from LB to instance**

**Health check using the same port**

**Healthy threshold**

**Unhealthy threshold**

**Timeout**

**Interval**

**Auto Scaling**

**Launch Config**

**AMI**

**Role**

**Instance type**

**Security group**

**Key pair**

**Health Check grace period -** The amount of time until EC2 Auto Scaling performs the first health check on new instances after they are put into service.

**Attach Load balancer**

**Configure group size and scaling policies**

**Desired, Min & max**

**Scaling policy and warm up time for instance+**

**Auto scaling Life cycle hook: to make the instance in Terminate wait state for analysis**

**Lifecycle hooks automatically integrates with AWS code deploy and install the latest code in the Instance with help of hooks**

aws autoscaling put-lifecycle-hook --lifecycle-hook-name AStroublshoot --auto-scaling-group-name MyASGroup

        --lifecycle-transition autoscaling:EC2\_INSTANCE\_TERMINATING

        --notification-target-arn arn:aws:sns:us-west-2:123456789012:ASNotifications

        --role-arn arn:aws:iam::123456789012:role/AS-Lifecycle-Hook-Role

Be sure to substitute your own AWS Auto Scaling group name, SNS target ARN, and IAM role ARN before running this command.

This command:

* Names the lifecycle hook (AStroubleshoot)
* Identifies the AWS Auto Scaling group that is associated with the lifecycle hook (MyASGroup)
* Configures the hook for the instance termination lifecycle stage (EC2\_INSTANCE\_TERMINATING)
* Specifies the SNS topic's ARN (arn:aws:sns:us-west-2:123456789012:ASNotifications)
* Specifies the IAM role's ARN (arn:aws:iam::123456789012:role/AS-Lifecycle-Hook-Role)

By default, an instance remains in the Terminating:Wait state for 3600 seconds (1 hour). To increase this time, use the heartbeat-timeout parameter in the [put-lifecycle-hook](https://docs.aws.amazon.com/cli/latest/reference/autoscaling/put-lifecycle-hook.html) API call. The maximum time that you can keep an instance in the Terminating:Wait state is 48 hours or 100 times the heartbeat timeout, whichever is smaller.+

Test the lifecycle hook

To test the lifecycle hook, choose an instance and then use [terminate-instance-in-auto-scaling group](https://docs.aws.amazon.com/cli/latest/reference/autoscaling/terminate-instance-in-auto-scaling-group.html) to terminate the instance. This forces AWS Auto Scaling to terminate the instance, similar to when the instance becomes unhealthy. After the instance moves to the Terminating:Wait state, you can keep your instance in this state using [record-lifecycle-action-heartbeat](https://docs.aws.amazon.com/cli/latest/reference/autoscaling/record-lifecycle-action-heartbeat.html). Or, allow the termination to complete using [complete-lifecycle-action](https://docs.aws.amazon.com/cli/latest/reference/autoscaling/complete-lifecycle-action.html).

aws autoscaling complete-lifecycle-action --lifecycle-hook-name my-lifecycle-hook

        --auto-scaling-group-name MyASGroup --lifecycle-action-result CONTINUE

        --instance-id i-0e7380909ffaab747

# Temporarily removing instances from your Auto Scaling group

**Using standby or dettach**

**Code deploy**

[**https://medium.com/@elmanhasa/ci-cd-in-aws-configure-auto-scaling-for-codedeploy-28063b9e714**](https://medium.com/@elmanhasa/ci-cd-in-aws-configure-auto-scaling-for-codedeploy-28063b9e714)

1. **Application (OCR) – EC2/ ECS/ lambda**
2. **Deployment Group (dev, test , prod) contains the deployment type(in place or blue green), Revision location, Role for code deploy**
3. **Roll back Manual or automatic – will clean the previously copied files and do a fresh deployment (can be invoked if deployment fails or certain condition is meet)**
4. **Create deployment**
5. **Fail the deployment**
6. **An error is reported and the deployment status is changed to Failed.**
7. **Overwrite the content**
8. **The file in the application revision is copied to the target location on the instance, replacing the previous file.**
9. **Retain the content**
10. **The file in the application revision is not copied to the instance. The existing file is kept at the target location and treated as part of the new deployment.**
11. **Deployment configuration (ALL AT ONCE )**
12. **Appspec.yml**
13. **Hooks in yaml file**
14. hooks:
15. *deployment-lifecycle-event-name*:
16. - location: *script-location*
17. timeout: *timeout-in-seconds*
18. runas: *user-name*

**ApplicationStop**

**DownloadBundle**

**BeforeInstall**

**Install**

**AfterInstall**

**ApplicationStart**

**Validate Service**

**Before Allow Traffic**

**Block traffic**

**After allow traffic**

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