

**MCA SEM-III**

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**CLOUD TECHNOLOGY –  
Auto Scaling**

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## Auto Scaling

### Auto Scaling

A service provided by AWS.

Which provides a kind of help to ensure that you have a sufficient number of EC2 instances to handle the load for your application.

An application is hosted and the application is facing high load.

Then to decrease the load the EC2 instances can be scaled up.

Similarly if the load gets decreased then the EC2 instances are scaled down.

These EC2 instances are auto scaled.

## Auto Scaling

### Auto Scaling Groups

These EC2 instances are binded into one group.

This group is known as Auto Scaling Group.

In these Auto Scaling Groups we can have as many EC2 instances needed.

In ASG minimum 2 instances should be there.

In ASG maximum 4 instances are needed.

## Auto Scaling

### Auto Scaling Options

Three options are present:

1. **Manual Scaling** : Specifies the minimum or maximum size of the particular group. The approach is manual.
2. **Scheduled Scaling** : Advanced option. If the load pattern is known then this scaling can be applied. It follows the function of time and date.
3. **Dynamic Scaling** : Also known as on demand scaling. It means nothing is known about the load pattern. Decide a threshold. If the load goes above the threshold then new EC2 instances can be launched. If the load goes below the threshold then the no. of EC2 instances can be decreased.

## Auto Scaling

### Auto Scaling Benefits

1. **Fault Tolerance** : The Auto scaling has a feature to detect which instance is healthy and which instance is unhealthy. If it detects an unhealthy instance then it can terminate the instance automatically and can launch a new healthy instance.
2. **Availability** : If the client anytime asks for any resource or data then it should be available for that particular user anytime.
3. **Cost Management** : If the load is more then more EC2 instances are used if load is less then less EC2 instances are used. So the cost is efficient.

## Auto Scaling

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### References

1. <https://aws.amazon.com/autoscaling/>
2. <https://docs.aws.amazon.com/autoscaling/ec2/userguide/what-is-amazon-ec2-auto-scaling.html>

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