CLOUD COMPUTING
(Hands on with AWS)

Day 1 – Introduction to the cloud

Session 1

1. Introduction to the cloud

- What is a cloud?
- Where did the cloud come from? History, evolution, etc.
- What a cloud is not: Grid, parallel computing, VM, etc.
- Characteristics of cloud computing

2. What makes a cloud?

- Storage Virtualization
- Application virtualization
- Server virtualization
- Network virtualization

3. Hands-on demonstration of cloud computing

- Creating an account on the cloud
- Starting a server instance
- Allocating storage and other resources
- Deploying an application

Session 2

4. Cloud Computing Service Models

- Infrastructure as a Service (IAAS)
- Platform as a Service (PAAS)
- Software as a Service (SAAS)

5. Cloud computing deployment models

- Public Cloud
- Private Cloud
- Community Cloud
- Hybrid Cloud

6. Advantages of cloud computing

- Cost model change (Capex to Opex only)
- Reduction in cost of ownership (TCO)

- On-demand scalability
- Reliability
- Shorter Time to Market
- Ease of Use
- Reduction in operation overheads

7. Challenges of cloud computing

- Security
- Data privacy
- Performance
- Availability

DAY 2 - Deep dive into the cloud(s)

Session 1

8. Cloud providers and their offerings

- Amazon
- Microsoft
- Google
- Salesforce.com

9. Amazon Web Services

- Services offered by Amazon
- Hands-on Amazon
- EC2 - Configuring a server, Launching an instance
- S3- Allocating storage buckets,
- Creating groups, objects and bucket policies

10. Microsoft Windows Azure

- Microsoft Windows Azure architecture
- Services offered by Microsoft Azure
- Hands-on on Azure
- Creating and deploying an application on Azure
- Migrating an existing application to Azure
- Migrating the application's data to SQL Azure

11. Introduction to Force.com from Sales force

- Infrastructure as a service
- Database as a service
- Integration as a service
- Logic as a service
- UI as a service
- Development as a service

- Administering the Cloud

12. Server Provisioning

- Capacity planning
- How to provision servers in cloud
- What type of server do I need?
- Best practices

Session 2

13. Providing Security

- VPC (Virtual Private Cloud)
- How to ensure security within cloud
- Firewall and security groups

14. Backup/Recovery of data

- Backups
- Backup strategy
- Where to save backup
- Restore operations

15. High Availability - HA

- How to ensure availability
- Provisioning across zones (Physical data-centers for availability)
- Elastic IPs for high availability

16. Server monitoring and Performance monitoring

- Monitoring needed in the cloud
- Monitoring tools availability
- Performance monitoring
- Tweaks to improve performance and availabilit

Duration: 2 Day

Kit: Standard kit will be take away in group of 5 participant,

Minimum number of participant: 60

Fee: INR 1200/- for 2 day workshop.