

National Level Cloud Computing Workshop Course Contents

Project to be covered in 2 Days workshop

- Learn Google Apps Store
- How to Store Data on Cloud
- How to make Blog
- Deploying an application on azure
- Virtual Private Cloud.

Workshop Name: National Level Cloud Computing workshop

Registration Fee: 950/-per participant (The fee includes workshop training, certification, and Event registration and a free Cloud Computing workshop Kit to each member)

First Day: Glance of Cloud

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

what makes a cloud?

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

Hands-on demonstration of cloud computing

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

Cloud Computing Service Models

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

Cloud Computing deployment models

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

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

Challenges of cloud computing

- Security
- Data privacy
- Performance
- Availability

Second Day: Deep into Cloud

Cloud providers and their offerings

- Amazon
- Microsoft
- Google
- Salesforce.com

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

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

Introduction to Google App Engine

- Runtime environments
- The Data store
- App Engine Services
- Scheduled tasks and queues

Administering the Cloud & Server Provisioning

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

Providing Security

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

Backup/Recovery of data

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

Server monitoring and Performance monitoring

- Monitoring needed in the cloud