



## Course Content of Cloud Computing

### 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

### Cloud Computing Service Models

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

### Challenges of cloud computing

- Security
- Data privacy
- Performance
- Availability

### 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

### What makes a cloud?

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



## Cloud computing deployment models

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

## Cloud providers and their offerings

- Amazon
- Microsoft
- Google
- com

## 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

## Hands-on demonstration of cloud computing

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

## 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



## 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