

Championship & Training Program IFC3 INDIA-Cloud Computing/Big Data

Cloud Computing is a technology that uses the internet to store, process data and application on virtual Cloud i.e. instead of hardware storage (C.P.U/Hard Disk) the data can be accessed anytime and anywhere by simply logging into your computer system/Mobile.

Students will get hands on practical experience of Cloud Computing which allows them accessing and making new applications without installing the application or software on personal computer. This technology allows for much more efficient computing by centralizing data storage, processing and bandwidth. Cloud promises to revolutionize the future of IT service delivery by enabling a faster and more flexible way to meet the technology needs of your organization.

Introduction to Cloud Computing

- What is the Cloud?
- History of Cloud Computing
- How Cloud Computing Works
- Advantages & Disadvantages
- Applications for Businesses
- Cloud Service Providers

What makes a Cloud?

- Storage Virtualization
- Application Virtualization
- Server Virtualization
- Network Virtualization
- Cloud Computing Architecture
- Cloud Computing Terminology

Hands-on demonstration of Cloud Computing

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

Virtualization

- Virtualization Basics
- Objectives
- Benefits of Virtualization
- Emulation
- Virtualization for Enterprise
- Designing and Implementing a Data Center-Based Cloud
- Industry and International Standards
- Communication Requirements for Cloud Implementation
- Redundancy

VMware

Xen

KVM

Building Cloud Networks

Cloud Computing Service Models

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

Private Clouds & Amazon Web Services

- What is it? **India's First Cloud Computing Championship**
- Advantages & Disadvantages
- Installing a Private Cloud

AWS Overview

- Amazon S3
- VPC
- Cloud Front
- Elastic Map Reduce
- Cloudwatch
- Cloud Formation
- Amazon RDS

- Amazon SQS
- Amazon IAM
- Amazon Route 53
- Amazon DynamoDB
- Amazon Storage Gateway

Eucalyptus

Open Nebula

Open Stack

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 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

Zonal Competition

After the hands on theory and practical experience from the workshop, Zonal Round Competition will be conducted for the participants.

Other IFC3 MODULES:-

- 1) Ethical Hacking
- 2) Android Development
- 3) Linux Server and Security
- 4) Cisco Networking

