

**CETPA INFOTECH PVT. LTD.**  
**CURRICULUM OF CLOUD COMPUTING**

❖ **Fundamental Cloud Computing**

- Fundamental Cloud Computing Terminology and Concepts
- Basics of Virtualization
- Specific Characteristics that Define a Cloud
- Understanding Elasticity, Scalability, On-Demand and Measured Usage
- Benefits, Challenges and Risks of Contemporary Cloud Computing Platforms and Cloud Services
- Cloud Resource Administrator and Cloud Service Owner Roles
- Cloud Service and Cloud Service Consumer Roles
- Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) Cloud Delivery Models
- Combining Cloud Delivery Models
- Public Cloud, Private Cloud, Hybrid Cloud and Community Cloud Deployment Models
- Business Cost Metrics and Formulas for Comparing and Calculating Cloud and On-Premise Solution Costs

❖ **Introduction to Cloud Storage Service**

- Amazon Cloud Drive
- Google Drive
- DropBox

❖ **Virtualization**

- Introduction
- Features
- Advantages of Virtualization
- VMigration
- Virtualization for Enterprise
- VMware
- Concept of Hypervisor

❖ **Building a Cloud Server**

- Client-server architecture
- Esxi server implementation
- Vsphere client specification

❖ **Cloud Deploying Environments**

- Private Cloud
  - Introduction
  - Pros & Cons
  - Installing a Private Cloud
- Public Cloud
  - Introduction
  - Pros & Cons
  - Installing a Public Cloud
- Hybrid Cloud
  - Introduction
  - Pros & Cons
- Community Cloud
- Distributed Cloud
- Cloud Management strategies

❖ **Building a private cloud using lamp & eyeOS**

- Introduction to LAMP
- Eyeos structure model
- Deployment Model

❖ **Your Organization and Cloud Computing**

- When You Can Use Cloud Computing
- Benefits
- Limitations
- Security Concerns
- Regulatory Issues

❖ **Cloud Computing with the Titans**

- Amazon
- Google
- Salesforce.com
- Microsoft
- IBM
- EMC

❖ **Cloud Computing at Work**

- Software as a service
- Software plus services
- Developing Applications
- Local Clouds & Thin Clients

❖ **Cloud Computing Technology**

- Hardware & Infrastructure
  - Client
  - Security
  - Network
  - Services
- Accessing the cloud
  - Platforms
  - Web Applications
  - Web API's
  - Web Browsers
  - Cloud Storage
- Standards
  - Application
  - Client
  - Infrastructure
  - Service

❖ **Accessing the Cloud**

- Platforms
- Web Application Framework.
- Web Hosting Service
- Proprietary Methods
- Web Applications
- Your Choices
- Sample Applications
- Web APIs
- What Are APIs?
- How APIs Work
- API Creators

❖ **Platform as a Service**

- Introduction
- Understanding PaaS
- Benefits of Consuming PaaS
- Considerations for Embracing PaaS
- How PaaS Affects IT
- Architecture
- Becoming a PaaS Provider

## ❖ Exploring the technical foundation for PaaS

- Specifying the components of PaaS
- Analyzing vendor PaaS provisions
- Selecting an appropriate implementation
- Building services with solution stacks
- Evaluating the architecture of vendor-
- Specific platforms.
- Live implantation with Salesforce.

## ❖ Introduction to Salesforce.com CRM and Force.com Platform

- Essentials of Salesforce.com CRM and Force.com Platforms
- Salesforce.com CRM Navigation & Functionality
- Data Models
- Architecture of Salesforce.com CRM

## ❖ Developing Own Application

- Creating a New App
- Creating Fields
- Managing Record

## ❖ Create Custom Object and Relationships

- Create custom objects
- Relate the Objects
- Create Tabs.
- Assign tabs with objects
- Create a relation Record

## ❖ Using Formulas and Validation Rules

- Create a formula
- Calculating line item
- Play with a Roll-Up Summary Field
- Play with Validation Rule
- Test the Validation Rule

## ❖ Automating Processes Using Workflow

- Create Workflow
- Manage Approvals
- Define Workflow Rules
- Test the Workflow Rules

## ❖ Creating an Approval Process

- Email Template
- Create New Approval Process
- Create a Custom Profile
- Create or manage a User
- Test the Approval Process

## ❖ Creating Reports and Dashboards

- Create a Tabular Report
- Create a Matrix Report
- Create a Dashboard
- Create a Summary Report

## ❖ Adding Programmatic Logic with Apex

- Create an Apex Trigger Definition
- Define a List variable
- Iterate through the List and fields
- Test the Trigger

## ❖ Adding Tests to Your App

- Create Apex Test Classes
- Test Methods to the class
- Write Code to Execute
- Execute the Test

## ❖ Building Custom User Interface Using Visual force

- Create a Visual force Page
- Add a Style sheet Static Resource
- Add a Controller to the Page
- Display the information on Visual force Page
- Add Inline Editing Support

## ❖ Software as a Service

- Introduction
- Understanding SaaS
- Benefits of Consuming SaaS
- Considerations for Embracing SaaS
- The Service-Centric IT
- How SaaS Affects IT

## ❖ Infrastructure as a Service

- Introduction
- Understanding IaaS
- Benefits of Consuming IaaS
- Considerations for Embracing IaaS
- How IaaS Affects IT
- Architecture
- Becoming a IaaS Provider

## ❖ Deploying Infrastructure as a Service (IaaS)

- Accessing IaaS
- Provisioning servers on demand
- Handling dynamic, Elastic IP and static IP addresses
- Tools and support for management and monitoring
- Accessing Amazon AWS management console
- Recognize AWS Global Infrastructure
- Security Major

## ❖ Introduction to AWS

- Navigate the AWS Management Console
- Recognize AWS Global Infrastructure
- Describe the security measures AWS provides
- AWS Storage
- Identify key AWS storage options
- Create an Amazon S3 bucket and manage associated objects
- Identify the different AWS compute and networking options
- Create an Amazon EC2 instance
- Use Amazon EBS with Amazon EC2

## ❖ Managed Services & Database

- Describe Amazon Dynamo DB
- Understand key aspects of Amazon RDS
- Deployment and Management
- Describe Amazon Cloud Watch metrics and alarms
- Describe Amazon Identity and Access Management (IAM)

## ❖ AWS Security

- Controlling account security
  - Configuring access credentials
  - Managing users with Identity Access Management (IAM)

## ❖ Leveraging the Virtual Private Cloud (VPC)

- Provisioning isolated AWS resources
- Bridging Ec2 instances to your internal network with a VPN
- Launching Ec2 instances on dedicated hardware

## ❖ Project Implementation

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