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