**Course Summery- Cloud Computing**

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INTMCA, SEM 9

Subject: Cloud Computing – RLMCA 381

**Introduction to Cloud**

This course describes the core concepts of cloud computing. It explains the foundational knowledge required for understanding cloud computing from both business and practitioner perspectives.

This course covers the definition and essential characteristics of cloud computing, its history, emerging trends, and the business case for cloud computing and also learn about the various cloud service models (IaaS, PaaS, SaaS) and deployment models (Public Cloud, Private Cloud, Hybrid Cloud) and the key components of a cloud architecture (Virtualization, VMs, Storage, Networking, Containers).

**Module 1: Overview of Cloud Computing**

This module describes the definition and essential characteristics of cloud computing. It explains the evolution of cloud computing and the factors that organizations need to consider while creating their cloud strategy.

**Module 2 - Cloud Adoption and Emerging Technologies**

This module describes the business case for cloud adoption and case studies that demonstrate the results achieved by organizations through cloud adoption and also learn about some of the emerging technologies being supported by cloud computing.

**Module 3 - Cloud Computing Service and Deployment Models**

This module describes the different types of service and deployment models of cloud computing.

* Describe the features, benefits, and use cases for the three main cloud service models such as Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS
* Describe the features, benefits, and use cases for the three main cloud deployment models such as Public, Private, and Hybrid

**Module 4 - Components of Cloud Computing**

This module describes the various components of a cloud computing architecture, such as virtualization, virtual machines, bare metal servers, and the difference between virtual machines and bare metal servers and also explains how to build a secure cloud networking presence and how container-based technologies work.

**Module 5 - Cloud Computing Storage and Content Delivery Networks**

This module describes the features and differences between the four main types of cloud storage - Direct Attached, File, Block, and Object Storage and also learn about the benefits of a Content Delivery Network.

**Module 6 - Emergent Trends, Cloud Native, DevOps and Application Modernization**

This module describes some of the emergent cloud trends, such as Hybrid Multicloud, Microservices, and Serverless and also learn how cloud native applications work, how DevOps helps tackle some of the complexities posed by cloud, and how organizations can modernize their applications for the cloud.

**Certificate**

