Lesson Plan

Cloud Computing

Instructor: Manisha Chawla

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Semester: 6th

Number of classes planned: 30

Lecture Plan No.	Unit No.	Topic to be covered
1-2	1	1.1 Essentials of Cloud Computing 1.2 Need for Cloud Computing 1.2.1 Reduced Costs 1.2.2 Scalability 1.2.3 Remote Access 1.2.4 Disaster Relief 1.2.5 Ease of Implementation 1.2.6 Skilled Vendors 1.2.7 Response Time 1.2.8 Easy to Customize 1.2.9 Virtual Provisioning 1.2.10 Fully Automated Storage Tiring - FAST
3-4	1	1.3 History of Cloud Computing 1.3.1 Client Server Technology 1.3.2 Peer-to-Peer Approach
5	1	1.3.3 Distributed Computing 1.3.4 Evolution of Cloud Computing
6	1	1.3.5 Benefits of Cloud Computing 1.3.6 Limitations of Cloud Computing
7	1	1.4 Elastic Computing
8-10	2	2.1 Cloud Data Center Requirements 2.1.1 Architectural Influences 2.1.2 Operational Influences
11	2	2.2 Influence of Cloud Computing on Business Companies 2.2.1 Business Alignment 2.2.2 Governance
12-13	3	3.1 Grid Computing framework 3.2 Grid Architecture 3.2.1 Advantages of Grid Computing 3.2.2 Challenges of Grid Computing
14	3	3.3 Cloud Computing Architecture
15	3	3.4 Key Design aspects of Cloud Architecture, Cloud Services and Cloud Applications
16	3	3.5 Characteristics of Cloud and Grid Computing
17-18	4	4.1 Cloud Service Models 4.1.1 Software as a Service 4.1.2 Platform as a Service 4.1.3 Infrastructure as a Service
19	4	4.2 Cloud Computing Sub-Service Models 4.2.1 Everything as a Service 4.2.2 Compliance as a Service 4.2.3 Identity as a Service
20	4	4.2.4 Database as a Service 4.2.5 Storage as a Service 4.2.6 Communication as a Service 4.2.7 Security as a Service

21	4	4.2.8 Monitoring as Service 4.2.9 Desktop as a Service 4.2.10 Compute Capacity as a Service
22	4	4.3 Cloud Deployment
23-24	4	4.3.1 Public Clouds 4.3.2 Private Clouds 4.4.3 Community Clouds 4.4.4 Hybrid Clouds
25	5	5.1 Cloud Data Center core elements 5.2 Storage Network Technologies and Virtualization 5.3 Object based storage technologies
26-27	5	5.4 Cloud Backup 5.5 Cloud and Disaster recovery 5.6 Traditional Data Centre Management
28-30	5	5.7 Virtualization Technology 5.7.1 At Server 5.7.2 At Network 5.7.3 At Desktop and Application