



E2MATRIX

Training and Research Institute

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CLOUD COMPUTING COURSE CONTENT

Cloud user can deploy the large scale application over the real cloud without taking any responsibility for resource management and resource provisioning. Cloudsim toolkit provides the modeling and simulation of cloud computing system and application provisioning policy implementation. This Simulation tool provides the repeatable and controlled environment to setup a new virtual cloud computing environment with different cloud component properties. Cloudsim. Toolkit provides the flexibility to the user to implement his own resource provisioning policy. Cloudsim enables seamless modeling, simulation, and experimenting on Cloud computing infrastructures. It is a self-contained platform that can be used to model datacenters, service brokers, and scheduling and allocation policies of large scale Cloud platforms.



Module 1

1. What is cloud computing
2. Real time scenario
3. Architecture

4. SaaS, PaaS, IaaS
5. Application of Cloud Computing
6. Basics of Cloudsim with Installation

Module 2

1. Creation of
 - a) Datacenters,
 - b) Brokers,
 - c) Virtual Machines,
 - d) Jobs
2. Simulation of the cloud scenario
3. Calculation of make span time, cost, waiting time for the running of each job

Module 3

1. Job scheduling in cloud computing
2. FCFS Scheduling algorithm execution in cloud
3. SJF Scheduling algorithm in cloud

Module 4

1. Resource aware scheduling
2. Load Balancing

Module 5

Security in cloud computing