PH816 Cloud Computing for Big Data

Objectives

To introduce various techniques of Cloud computing and its applications

Unit I: Basics of Cloud computing

Introduction to cloud - computing paradigms - Characteristics and benefits Cloud Infrastructure and Deployment o Main aspects of a cloud system - Key properties of cloud computing- Explore available solutions o Cloud Architecture

Unit II: Virtualization Techniques

Introduction to virtualization - Uses of Virtualization - Types of Virtualization - Explore Xen Architecture Introduction to SaaS - Pros and Cons of SaaS Model - Traditional Packaged software Vs SaaS - SaaS examples

Unit III: Cloud Services

Developing Cloud Services: Web-Based Application -Pros and Cons of Cloud Services Development – Types of Cloud Service Development - Software as a Service –Platform as a Service – Web Services – OnDemand Computing – Discovering Cloud Services Development Services and Tools –Amazon Ec2 – Google App engine – IBM Clouds

Unit IV: Cloud Computing For Everyone

Centralizing Email Communications-Collaborating on Schedules Collaborating on To-Do Lists – Collaborating Contact Lists-Cloud Computing for the Community Collaborating on Group Projects and Events- Cloud Computing for the Corporation.

Unit-V: Cloud applications

Multi tenant Model for cloud Services - Service Licences Agreement in Cloud Hypervisor level Isolation Clod Computing and big data - Bigdata relate to Cloud - Cloud Services for Big Data -Collaborating via Social Networks and Groupware Collaborating via Blogs and Wikis.

Outcome

After successful completion of the course, the students will be able to:

1. Understand various Cloud computing and its services
2. Understand various Virtualization techniques and cloud applications.

References

1. Cloud Computing Black Book by Kailash Jayaswal, Dreamtech Press - 2015
2. Mastering Cloud Computing by Rajkumar/ McGraw Hill Education-2013
3. Haley Beard, Cloud Computing Best Practices for Managing and Measuring Processes for On-demand Computing, Applications and Data Centers in the Cloud with SLAs, Emereo Pty Limited, July 2008.
4. Cloud Computing: A practical Approach by Anthony T.Velte, Toby J. Velte, Robert Elsenpeter, The McGraw Hill Companies-2010.

Senate

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