Terna Engineering College
Computer Engineering Department
Program: Sem VIII

Course: Cloud Computing Lab (CSL803)

Faculty: Reshma Koli

Experiment No. 1

A.1 Aim: Study of NIST model of cloud computing.

PART B
(PART B: TO BE COMPLETED BY STUDENTS)

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Date of Experiment: 10-01-2022	**Date of Submission:** 10-01-2022
Grade:	

B.1 Question of Curiosity:

Q1: Discuss the advantages and disadvantages of Cloud Computing.

ANS:

Advantages of Cloud Computing:

1. Back-up and restore data
- Once the data is stored in the cloud, it is easier to get back up and restore that data using the cloud.

2. Improved collaboration
- Cloud applications improve collaboration by allowing groups of people to quickly and easily share information in the cloud via shared storage.

3. Excellent accessibility
- Cloud allows us to quickly and easily access store information anywhere, anytime in the whole world, using an internet connection. An internet cloud infrastructure increases organization productivity and efficiency by ensuring that our data is always accessible.

4. Low maintenance cost
- Cloud computing reduces both hardware and software maintenance costs for organizations.

5. Mobility
- Cloud computing allows us to easily access all cloud data via mobile.

6. IServices in the pay-per-use model
- Cloud computing offers Application Programming Interfaces (APIs) to the users for access services on the cloud and pays the charges as per the usage of service.

7. Unlimited storage capacity
- Cloud offers us a huge amount of storage capacity for storing our important data such as documents, images, audio, video, etc. in one place.

8. Data security
- Data security is one of the biggest advantages of cloud computing. Cloud offers many advanced features related to security and ensures that data is securely stored and handled.

Disadvantages of Cloud Computing:
1. Internet Connectivity
- As you know, in cloud computing, every data (image, audio, video, etc.) is stored on the cloud, and we access these data through the cloud by using the internet connection. If you do not have good internet connectivity, you cannot access this data. However, we have no other way to access data from the cloud.

2. Vendor lock-in
- Vendor lock-in is the biggest disadvantage of cloud computing. Organizations may face problems when transferring their services from one vendor to another. As different vendors provide different platforms, that can cause difficulty moving from one cloud to another.

3. Limited Control
- As we know, cloud infrastructure is completely owned, managed, and monitored by the service provider, so the cloud users have less control over the function and execution of services within a cloud infrastructure.

4. Security
- Although cloud service providers implement the best security standards to store important information. But, before adopting cloud technology, you should be aware that you will be sending all your organization's sensitive information to a third party, i.e., a cloud computing service provider. While sending the data on the cloud, there may be a chance that your organization's information is hacked by Hackers.

Q2: List suitable Cloud applications used by top most IT companies.
ANS:
1. Software-as-a-Service (Saas): Salesforce
2. Infrastructure-as-a-Service (Saas): DigitalOcean
3. Platform-as-a-Service (Saas): AWS
4. File Sharing + Data Storage: Dropbox
5. Big Data Analysis: Civis Analytics
6. Data Governance: Carbonite
7. Cybersecurity: Forcepoint

Q3: List all Cloud Providers.
ANS:
1. Amazon Web Services (AWS)
2. Microsoft Azure
3. Google Cloud
4. Alibaba Cloud
5. IBM Cloud
6. Oracle
7. Salesforce
8. SAP
9. Rackspace Cloud
10. VMWare

Q4: List Various Saas Services
ANS:
1. Google Workspace (formerly GSuite)
2. Dropbox
3. Salesforce
4. Cisco WebEx
5. SAP Concur
6. GoToMeeting

Q5: List Various Paas Services
ANS:
1. AWS Elastic Beanstalk
2. Heroku
3. Windows Azure (mostly used as PaaS)
4. Force.com
5. OpenShift
6. Apache Stratos
7. Magento Commerce Cloud.

Q6: List Various Iaas Services
ANS:
1. AWS EC2
2. Rackspace
3. Google Compute Engine (GCE)
4. Digital Ocean
5. Magento 1 Enterprise Edition*

B.2 Conclusion:
As a result, I read the NIST model of cloud computing and began to familiarise myself with SaaS, PaaS, and IaaS services.