IICT (Introduction to Information Communication Technology)

LAB REPORT # 11

Semester: 1

Section: C

Submitted To:

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Cloud Computing

Q1: Elaborate the Basics characteristics of the cloud computing.

ANS: - Cloud computing is a model for delivering information technology services in which resources are retrieved from the internet through web-based tools and applications, instead of a direct connection to a server. It typically involves the use of virtualized resources such as software, hardware, and storage that are managed over the internet.

1. **On-demand self-service**: Cloud computing allows users to access resources OnDemand and without manual intervention from the provider. This allows users to access resources quickly and scale them up or down as needed.
2. **Scalability**: Cloud computing allows users to scale resources up or down as needed, enabling them to pay only for the resources they need.
3. **Cost savings:** By leveraging the shared resources of the cloud, users can reduce their IT costs and focus on their core business.
4. **High availability:** Cloud computing provides high availability of resources, ensuring that applications and services remain available even in the event of a system failure.
5. **Security:** Cloud computing provides a secure and reliable environment for users to access their data and applications.
6. **Ease of use:** Cloud computing makes it easy for users to access and manage their data and applications from any location.

Q2: Define the advantages and disadvantages of cloud computing.

ANS: - Advantages:

1. **Cost Savings:** Cloud computing can save businesses money. Cloud computing eliminates the need to purchase and maintain hardware and software, reducing upfront and long-term costs.
2. **Scalability:** Cloud computing allows businesses to scale up or down quickly and easily according to their needs. As businesses grow, they can easily increase their computing power without having to invest in new infrastructure.
3. **Security:** Cloud computing providers offer a high level of security for their customers, making it an ideal platform for businesses dealing with sensitive data.
4. **Flexibility:** Cloud computing allows businesses to access their data and applications from anywhere, anytime. This makes it much easier to collaborate with colleagues and access important information when needed.
5. **Automation:** Cloud computing can automate many of the tedious tasks associated with managing a business, such as software updates and backups. This frees up time for other important tasks.

Disadvantages:

1. **Security Risk:** Cloud computing can present a security risk for businesses. As data is stored off-site, businesses can be vulnerable to cyber-attacks and data breaches.
2. **Limited Control:** Cloud computing can limit businesses' control over their data and applications. As businesses are not in control of the underlying infrastructure, they may not be able to make changes or access their data when they need to.

3. **Dependency:** Cloud computing can create a dependency on third-party providers. If the provider experiences any technical issues, businesses can be left without access to their data and applications.
4. **Interruption:** Cloud computing can be unreliable, as power outages, server failures, and network problems can cause interruptions in service.
5. **Compliance Issues:** Cloud computing can cause compliance issues for businesses that need to adhere to certain regulations. As data is stored off-site, businesses may not be able to meet the necessary requirements.

Q3: Mention the examples of cloud software use now a day.

ANS: - 1. Software as a Service (SaaS): This type of cloud software allows users to access applications and data over the Internet. Examples include web-based email, online office suites and document storage, customer relationship management and ecommerce services.
2. Platform as a Service (PaaS): This type of cloud software provides users with a platform to develop, run and manage applications. Examples include development platforms, databases, content management systems, and web hosting and search engines. **3. Infrastructure as a Service (IaaS):** This type of cloud software enables users to rent infrastructure such as compute, storage, networks and operating systems. Examples include virtual private servers, cloud storage, virtual desktops and cluster computing.

CONCLUSION:

- • Cloud Computing is a type of computing where users access services, applications, storage and data over the internet.
- Advantages of cloud computing include cost savings, scalability, accessibility and flexibility.
- Disadvantages include security risks, loss of control, and performance and reliability issues.
- Examples of cloud software use now a day include Google Drive, Office 365, AWS, Salesforce, Dropbox, and many more.