Final Term Paper (Spring - 2020)
Cloud Computing

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Note: Attempt all Questions. Answers should be in your own words. Plagiarism will not be tolerated, if detected, it will lead to failure.

Question No. 1: (20)

a. Explain in detail network and cloud-based storage.

Ans1: Network Storage: network storage mean local data store on a local devices a hard driver memory are on a services your network it also called attached storage we can also say that is like NAS use the having private cloud computing in office provide all benefits of public cloud on site.

NAS services are scale out meaning that's as your needed storage you can add to what you have the file based protocol for example NFS, SMB, AFP, NAS provide variety protocol to user.s

- Advantage

  Increased security all permission of data are controlled by an organization internal IT person.

- No internet connection required.
- Physical possession of data.
- NAS is quick the storage of data locally.

  :> disadvantage

- The migration of old data hard driver to new hard driver.
- Its become harder when the storage area company have buy new hard driver so its expensive.
- Hard driver are fragile time they can cost a business fortune.

➢ Cloud base storage

Cloud storage are means storing the date in a physical hardware remotely which can use by accessed your computer and mobile via internet user send a file to the cloud and maintained by the cloud storage provide. Cloud storage server encompass many

servers linked together by a master server the complexity cloud storage depend on the provider the simplest system many involve server.

Question No. 2: (20)

a. Explain in detail web application and multitenant technology.

Ans2 A: > Web Application

Web application is the computer program which utilize web technology and web browser to perform task for user.

Web application are code in their respective which support by internet browser such the as the script and HTML.

Web application web is require server is manage the requests and sometime web application also needed data base to store data the user. Application example ASP. Net ASP cold fusion PHP JPS. Example micro soft office 36O.

- Multitenant Technology

  Multi tenancy is architecture in which a single instant of software application server multiple customer in the multitenant technology the customer is called tenant. They cannot customize the code and design of the application and can some business changes architecture broadened of new models that advantage of virtuallition and remote access. Example Netfilx.

b. Explain in detail cloud security threats.

Ans2 B:

- Data **B**reaches

  Risk of data breach is not unique cloud computing, but it consistently the top of ranks concern of the cloud computing.
- Data Loss and no backup

  The accident of catastrophe can lead to the permanent loss of the customer and the data uless measure in the place back up the data.
- DDoS Attack

  The distributed of denial of services the attack of significant risks and the cloud customer provider including length services outage damage and exposure of customer data.
- Insecure APIs

  The public front door your application an APIs is likely the initial entry points for attack. Use pen testing to uncover security weakness the APIs you use.
- Exploits

  The nature of multitenancy of the cloud computer and the customer share computing resources and the shared means memory and resources may create a new attack surface of malicious actor.
- Account hijacking

  The using stolen credentials may gain attack access to critical area of cloud computing services and compromising the confidentiality availability of those services.
- Advanced persistent threats

  The many persistent of advance threat groups not only the target cloud environment but use a public cloud services conduct their attack.

- Spectre and meltdown

  Attack can meltdown exploit virtual view of data services hosted on same hardware potentially distributes the cloud computing hosts. Specter is even worse to harder to exploit, but harder to fix to.
- Human Error

  According to jay Hreser research vices president at Gartner through the 95% of cloud computing security failures will be the costumer fault.

Question No. 3: (10)

a. Briefly describe following.
   a. Advantages and disadvantages of cloud computing.

Ans3 A: Cost Effective: It is way more cheaper than physically buying storage devices.

- Accessibility: It can accessed from anywhere around the World via Internet.
- Recovery: It is very easy for users to recover your lost data on a cloud than on your PC.
- Syncing and Updating: Any updates in the data on cloud is constantly updated and synced.
- Security: Data present on cloud is much secure than on PCs.

Disadvantages of Cloud Based Storage:

- Internet Connectivity: Without internet connection the data on cloud can't be accessed.
- Costly: Frequently uploading and downloading can have additional costs.
- Customers Support: Many providers refer you to a knowledge base or FAQs instead of supporting.
- Hard Drives: The Idea of shifting to cloud was to eliminate dependency on hard drives but some services providers still use them.
- Privacy: Since the data is located at a cloud of unknown location, one can't be sure about the privacy of the data.

- Advantage

   b. Collaborative meeting in cloud.

Ans3 B: Collaborative meeting in cloud: Cloud collaboration enables people to work simultaneously on documents that are present on cloud, so the user can access files from anywhere with an internet connection.

The start of a cloud collaboration process involves one user creating a file or document and giving access to other members of the team. Anyone who has access can make changes to the document at any time, including when other people are editing or viewing it. Any changes that you make save and sync – so every user sees the same version of the project whenever (and wherever) they view it.

- Feature of cloud collaboration: there are many feature of cloud collaboration but saome are given below:
- 1: universal user access
- 2: IP voice and video
- 3: Sharing and conferencing
- 4: Rich presence
- 5:Instant message
- 6:group chat.