1. History of Internet

* In the early 1990s Paul Baran proposed a distributed network which is based on data message.
* There are several packet switching networks in early 1970s and ARPANET is one of them.
* It’s led to the development of protocols and to realize multiple separate networks could be joined into another network.
* In 1986 with the NSFNET project couple of universities in US provided interconnectivity between their university super computers.
* Later in 1990s Tim Berners Lee who is a british computer scientist did a research which resulted for WWW(World Wide web). Since then internet hass been developed by several peoples.

1. A) W3C

* The World Wide Web Consortium(W3C) is a combination of member organizations to improve and maintain the development of standards for WWW.

B) IETF(Internet Engineering Task Force)

* Is an open standards organization which promotes voluntary internet standards, in particular the standards that comprise the internet protocol suit. All participants are volunteers in there.

C) Isoc(Internet Society)

* The Internet Society is an nonprofit organization which is providing leadership in Internet-related standards, education, access, and policy.

D) IAB(Interactive Advertising Bureau)

* It is an advertising nonprofit business organization which develops industry standards, conducts research, and provides legal support for the online advertising industry mostly in US and Europe.

1. Importance of the layers in TCP / IP Architecture in Internet Communication

* It provides continous data communication and it’s really helpful, important to have this layer architecture. It shows how data should be packets, addresses, transmit route, and receive.

* link layer - contain communication methods for data that remains within a single link.

internet layer - provide internetworking between networks.

transport layer - handle host-to-host communication.

application layer - provide data exchange for applications.

1. Importance of Protocols in Internet Services

* To get any sort of meaning out of signals that are transmitted over,it need some sort of basic behavior that can be anticipated from receiving those signals.

1. DNS resolution(Domain Name System)

* The Domain Name System is a hierarchical naming system for computers, services, or other devices which helps to connected to the Internet or a private network.

1. Importance of firewalls and proxy servers in Internet Security.
2. VoIP and Mobile IP Technologies
3. IPv4 and IPv6
4. IPv4

* IPv4 is the fourth revision of the IP which is used to identify devices on a network through an addressing system.
* IPv4 uses a 32-bits address scheme. Number of unused IPv4 addresses will usually run out because computers, smartphones and other devices that connects to the Internet need an address to access to internet.

1. IPv6

* Internet Protocol version 6 is the most recent version of the Internet Protocol. IPv6 uses a 128-bits address sceme.
* And it makes more addresses available than IPv6.

9.Real world Examples for 3 tier and peer to peer architecture

1. 3tier

1.)  Presentation Layer containing UI

2.) BusinessLogic Layer containing business logic UI will call this layer instead of calling data layer directly for security reasons

3) Data Access Layer so that all calls to database are abstracted and no-one can fire any query directly into database

B) peer to peer architecture

Part2

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<title>Tutorial 1</title>

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<h1>Nanduni Kaveesha</h1>

<p><u>My name is Nanduni Kaveesha.</u></p>

<p>I'm living at Kalutara.</p>

<p><b>I'm 20 years old.</b></p>

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