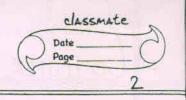
	COMPUTER NETWORKS: +
	Computer Network K Syallbus Ko hum do farts mun divide Karsakte hai
	Pahala OSI Model, Kaha se fordna hai from Tarnanbown. Aux TCP-IP, yet kaha se fordna hai from TCP-IP from E Fortogen.
Ours:	What do you meant by Computer Networks ?? Computer Network is a interconnection of two or more system.
	Aafine Simfly do System Ko Connect Kan diya, tah. Kya yeh Comfutur network form hogaya, ya fhin aafiko aun bhi Kuch Kanna fanga, comfutur Network Ko established Kanne K liye.
•	Joh aafne do System Ko wire Se connect Kiya, data-transfir Start bhi hogaya, but froblim kya hogi treciever end far ki took Sender ne kya Sende Kiya, usko Kaise interfret kiya jaye.
	Kaise interpret Kiya jaye iska kya matlab hai, jaise humne fada hai Ki ek character ko hum 8 bit assa value se represent karsakte hai or we can represent a character by 16 bit unicode
	Joh bolf Sender he joh Send Kiya hai, woh ascii code Send Kiya hai Ki Unicode code Send Kiya yeh Kaise fota Chaliga.
•	Joh Henrever ek character ko 8 bit long mane



(In	Chiv	16 bi	L long	mne.
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- Agan hamne data-transfur Stark Kiya ann agan data-transfur rate Stark bhi hogaya, toh froblim Kya aayegi Ki recieven kaise interpret ki Senden he Kya send Kiya hai:
- Problem Kya hai problem of interpretations
- · Islige gekwork extablish karre se fathale hum.
 Kya extablish karte har
 - Islige hetwork extablish karne k baad hum, sabse fahale kya extablish karte hai, kya set karte hai, kya set karte hai, set of rule, ki hum ascii code send karegey, isase jada bada message hum. send yahi karegey.
 - Aux yohe set of Hulip Kya Kahalata hai. Grotord
- · Joh basically what is network protocolis.

 Network protocol is a Set of rule or a

 network protocol is a way of communication.
 - Humne Kuch Hules bana lige ki hum charadir Ko Hebresent Karne K lige ascii standard use Karegey om hum itane der tak bransmit karegey. Lokb Se jada ka data Send nahi karegey.
 - Computer Network extablish kanne k lige sabse fahale reduined handware toh the hi, ki aafko data- bransfer kanne k lige wire Chahiye. Yeh

Sab hardware required that far uske fabale hamani software required kya hai, hamko kya banane hai set of rule.

Joh hamne Kya design Kanna hai frotocols. Toh thik hai hamne Kuch rules bana liye aaise bransmit Kangry, asai code use kangry, 15 Kb se jada Ka data hum send nahi Kangry. Aaise hamne kuch rules bana liye.

Now in Hules Ko imfriment Kon-Karuga, Kaise imfriment Karuga, System, toh obviously system far Kohi bhi Hule imfriment Karna har toh hum uske liye Software design Karte har.

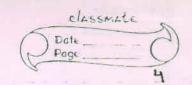
Joh basically, Joh yen haman, TOPIEP Model aun OSI- Model hai , work Kya hai toh they are nothing but software.

Jos impliment nétwork forotocot, use risé lossitos

Now hamne network protocol design kan liga, toh aab hamko kya Chahiye a Software which impliments that Hulle.

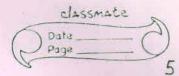
Hamne bahut - Saaru Mulis bana lige ki hum aaise bransmit Karuguy, aaise nahi Karuguy, aaise bahut Saaru Mulis bana lige hai, now un Mulis Ko implement Karne K lige humko Kya Karna, ek Software design Karna hai.

Aaisehi hum do Software déscuss Karegry gata



fax · Pahala hai OSI- model aux dusta TCP/IP Model.

- Joh OSI-Modil and ICP-IP Modil Kya hai they are a Software to implement a protocol.
 - OSI Stands for OPEN SYSTEM INTERCONNECTION and widely used protocol Konsa hai TCP/IP, TCP/IP Stands for Transmission control protocol and Internet Protocol.
 - OSI Model is theorical Model, fractically implemented model is TCPIP Model.
 - Hamne Software ko design Konne Ki bahut saare technique fare hat jaise Object oriented programming hote hat
 - Structured programming hote hat . C Ke productioning Style Kaise Kahate hat Structured brogramming.
 - Aaise hi Software ko design Kanne ke affiroach hoti hai layered affiroach.
 - yet dono networking model, his software afficientes se design Kiye gaye hai layoud approach so.
 - Sabse fahalı hum discuss Karıgi ki OSI- modil mein Kon- Kon se layırıs hai aun han layırı ka kya lask hai, finir hum discuss Karıgi ki tæli. mein kon- kon si layırı hai aun uzta un layırı Ka kya- kya task hai:



			page5				
•	Hamne bahut soare networking task banaye huye hai, aur hamne har layer ko kohi na kohi task assign Kiya hua hai.						
•	Sabse fahali Karrahai ha	hum OSI-model Ki lay	Jus Ko discuss				
•	OSI-model	is a Seven layor Modi	L, and tofmost				
	brusin tation Layor K ba bransport lay	Layun K baad it is for Layun K baad session ad it is bransfort Layur it is network-Layur data- link layur aun u	un and after network-Layer				
	1.	APPILICATION LAYER	- Jop-most				
	2.	PRESENTATION LAYER					
	3.	SESSION LAYER					
	Ц.	JRANSPORT LAYER					
	5.	NETWORK LAYER					
	6.	DATA - LENK LAYER					
	7.	PHYSICAL LAYER					

Matlab joh bhi hamarı hetworking k Huly honguy un Hulus ko împliment Karnı K liye hamne ekt Softwarı design Kiya, aur us softwarı ko hamne seven layus mein dividi Kiya hai.

- Har layer ko kuch na-kuch lask assign kiya hui. Now aab hum dekte hai har layer ko kya-kya task & assign kiye hai-
- Network Mein do type k usus hot hai -Ek top Sender hota hai it joh data ko send karta hai aun ek reciever hota hai joh data ko ruiève karta hai.
- · Joh Sabse fahale hum is model ka task dekte hai from senders foint of view.
- · Joh Sabse fahale hum Start Karte hai from
- # APPLICATION LAYER: +
 - · Joh application layer Kya Karte hai, top it
 - eostwar: hai?

 Titane bhi network basid ^ jisasi bhi aas intwact

 Kante ho, browsin is a fant of Afflication layer.
- · Aaisa kohî bhî Software jiskî help se aaf getwork ko access karte ho , woh Sabsi Kiska fart bai, they are the fart of afflication layer.
 - Browser and all other network software are the

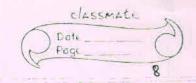
example of Application Layer

- · Application Layor ka purpose kya hai it intract with chi usiks. and usins.
 - Basically data kaha se yennati horaha hai afflication. Layor se, aafko kga littir send karna hai toh aaf kaha tyfe kar Hahai toh networking based software far, aur yet software kiska fort hai. Afflication layor ka.
 - Joh basically data Kaha se generate horaha hai, affication layor se.
 - Affilication Layor Kya Kar Mahai hai, it decide the data to be transmitted.
 - Hun întract Karte hai application layor se fuir baki lower layor Ka existence hamarle liye mattal end-user K liye învisible hota hai
 - Now Affication layer K baad data Kiske fass aata hai frusintation layer K fass.
- H PRESENTATION LAYER: >
 Presentable form:
- · Now yet hetwork bresentable form se kya matlat hai??

 Ans: Jaise aabhi hamne fada tha ascii code hote

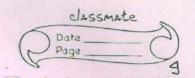
 hai uni-code hote hai, system ascii code based

 hai, far network ka standard kya hai unicode



- · Joh ascii-code to unicode conversion kon karta hai, presentation layer.
- Agan System unicode hai aun network aaise code hai toh yen conversion kon the Kanga unicode to ascui code conversion, frusentation layer kanga.
 - Agan system K data refrusintation mein aun network K data Refrusintation mein kuch difference hai, toh us difference Ko overcome Kanna Kiska Kaam hai, fresentation Layer Ka Kaam hai.
- EK format se dusru format mein content tourna kiska kaam hai frusentation layer ka.
- · Now aux Kya task hai frusuntation layer ka ??

 1s > Joh abhi joh discuss Kiya woh toh hai hi baki do task aux hoti hai frusentation layer k, four woh oftional hote hai.
 - · Pahala hote hai : DATA F.N CRYPTION aux ex aux hota hai Data compression.
 - Data compression mattab LMB Ki Gil hai upka 20KB mein Kan liya, i.e compression.
 - Now hum ek scenario lite hai ki suffoso aaf ek file ufload karrahai ho, won file anfke system. Se kaha jarahai hai to your mail surver
- Suppose won file kitane MB hai suppose wo file LMB Ki hai.



Joh application layer ne kya decide kiya, ki apne Ko IMB Ki file transmit karne hai network far, No

Now won LMB Ki file Kiske fass aayi presentation layer K fass aayi , presentation layer ne kya kiya toh joh bhi usko changes karne the, i'e usko network acceptable form mein change kiya aur dura en cruptid kiya aur thisara us file ko compress Kar diya.

Now phix data kiske fors agga fixintention laying

Now fhir data kiske pass aaya Session-Layer K. Now Yeh session Layer kya Rarte hai.

A SESSION LAYER: +

- Joh Session Layer maintains Session, aux kya word use karte hai it maintains dialog.
- Matlab Kya, is layer ka kaam Kya sief information ko load karna, kab se data transmittion start true hai, kab se agar file transmit horahai hai toh file ka Kitana faet transmit hogaya hai, aur Kitana baki hai, is layer ka Rya kaam hai sief record mainlain karna:
- yen layer data min Kohi Change nahi karle hai Sirf kya karlı it maintain records dialog session

Now furi IMB Ki file hamani session layer se



Kaha aagayi bransfort layer four:

- · Network mein data Kabhi bhi ck saath transmit
- Matlab joh hamoni yen LMB Ki file hai, toh yeh fouri LMB Ki file ek Saalh bransmit Jahi hogi. Network foar.
- · Won file fart mein divide hooke transmit Ki
- Kyo farts mein divide karte hai uske bahut saare. Heason hote hai
- · Hum unko ek-ek kan k discuss bhi kanti jayegiy Saath- Saath- Mein.
- A Pransfort Layer: >
 Data ka very first division Kaha hota hai bransfort Layer for hota hai, kaha far at sender end:
 - · Transport Luyer divides the data in the form of Segments
- · Matlab hamanî LMB Kî fîle Ko Lo; lo KB K Segments mein may fossîble Kî Lo segments main dixide Kan de.
- · Joh Sabse fahala question toh yaha hai kyo dirife Kantu hai. Segment to kB ka hi kyo 20KB