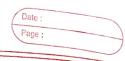
Assignment -1 Lambola Architecturer Data. >) Technological Advacable The expont growth in compatin pourer & storge capabilitis ted to the growth of Biz Date. 2) Digitalisation: Buin operations, Social intersection research as more he lad do the increasion to amost of Bo Del 3) Internst & Connectivity: The wide Spread available of Internet as the prolitoration of connected devig a) Social Modia & user General Contexts The rise of Social madia platfors, blogger and othe online platforms. 5) Senor Notwols: Advance in sensor technology have enabled to collection of data from various sources a) Octa Stora & Jourd Competige The colors of bud Computs platfor hy made it easier & more cost 7) Data Arolatios tools: The Development of Dota Andfle tool have made to organizary to store & proces large volume of Data at given time.

hage anot of data ston tem without looss de quelle à chillen -> Fault tolerance: Computs Faut tolerance o extremely Lord. - Sadubility - Bis Data projects can grow at evolve rapid). The dalabilin me of by Deta has lead toward chud computing. 4) Discuss the problem teral by traditions Databa Spotems -> +Scalabitib Traditional Dat he Stan often strange to Lorde massive volumes of Det general by modern applications As Data Sie and que complexis increa traditional Detable may expenses re performance is compromised. Complex queries, joins and aggraphs and con lead to slow response throng makes realtime analytics Traditional Registration of Spicals design with after fixed System. mkg H challery to adopt to don data Required. * Data Consistency Maintan data Consisters is distributed requirent can be difficult



Tradition Dotabu use Acid transator which can be limits in districted System Lad of Support for antracted Datas To tradition Dutaba are promons Desired for structural ofthe & may not handle unstructured or semi structural Security Concerns: Data security is critical and traditive database my face vulnoabilt if not configured and Managed properly. 8) Discuss The required properties of Big Date Systems. -Roboton & faut tolerance. Systems need to below correct doubt mach gois dan randoms to complex Semantis of consistens in detrubuted * low lateray & upddis: - The vost majors of appliations reques real to be satisfied with very low laters. - Scalability Stalabilis to ability to matter performance in the face of Income datas or load by add repairs to the System.



Extensibility.

Extensible Systems allow functions to able to added with a minimal development cost.

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C) Explain Different layer of Lambace

Architecture:

There are 3 layer.

D Batch layers

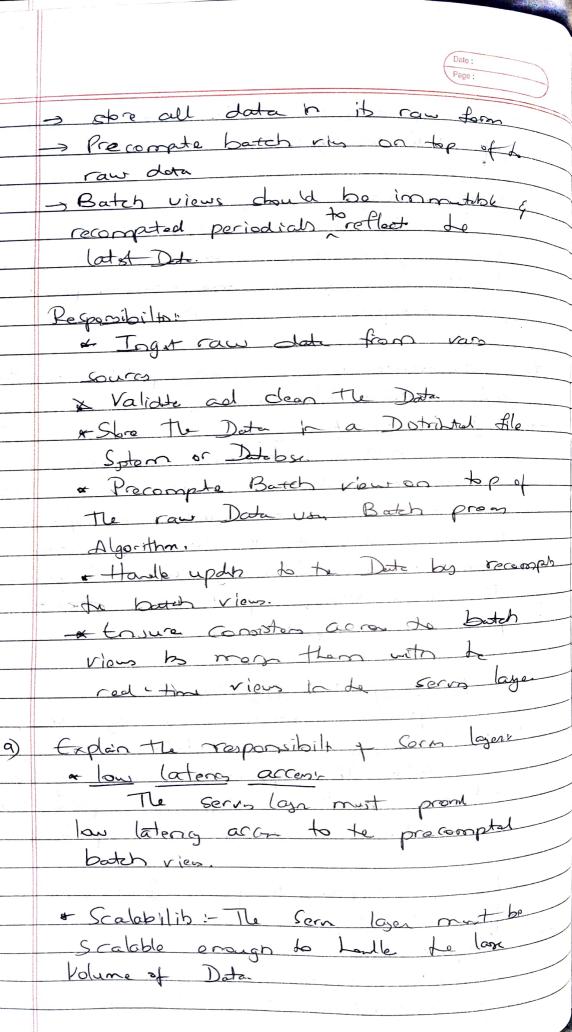
The layer to responsible for proons lage volum of Data in a fault tolorat & scalable manner. It stone all the data in its row form all precoupts butch views on

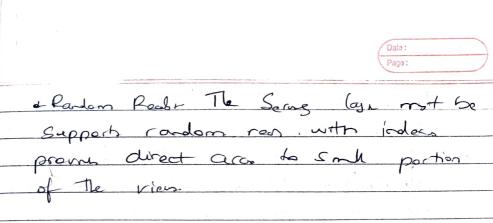
2) Speed layer The layer only topomble for proon rather data streams. It

Stors only he most relant and read



date & computs real time view on top of the exoting ons. 3) Servis layer: This layer is responsible for Serve querb on the data. It mergs to bootch view & roal time views to prome! a comple view of The date. 7) Differentiate between re-computation Algorithm ad incorrect algorithm. Incremental Algorithms Updar a booth view by uso de now Dot and he curret ste of batch view to perform on updle . The cipproch is more efficient in terms of reson usay becan it only read to prom The pour data & update to relevant pats of the patch view. Re-competition Algorithms Updato a batch view by locking at the entire mater datasa, include to now data. This approach is more goral ad can randle any type of updle, but it is lon efficit in terms of resource. 8) Lit & explain Requists of Rosposibilis of botch layor Regular - Pros lare volume of Dota + a fault taulorst and scalable manner.





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