## Assignment No: 1

Q.I What are the problems associated with a centralized system? . habatto of Centralized systems are type of computing i architecture where all or most of the processing sand data storaget isodone on a single server proposely connected servers. This central server manages all operations, -1 16 - resourced pland datas acting as the Rub 2 shouthough which all dients requests are processed. of the which may not always act on the best interest off the community or alband de alegado de alabanda de albanda de insome They dients or nodes connected to the ential server typically it have minimal processing more powers, and rely ton the reviver for mart avertaded . computationalinationalinas of men - The problems associated with a centralized systems are :a lock of thereparen many Single depoint of a failure besilosters (= => Centralized system have a single point of failure, meaning if this central entity offails or



\_\_\_ L by transpirate is compromised in the entire network can be affected. Imators basilantes For e.g., in Iraditional controlized banking system in it a central bank's diatabase is hocked for its operation, disripted it can aleader to posidespread financial problems affecting single agrangementange fanoiltimy connected servers. . 2022 recontrol and orgovernance lostings sitt Centralization oftent leads to a concentration termone of adecision-making I poweridan throuthonds of a few entities, which may not always act in the best interest of the community or 5 Scalability Jasues > Centralized systems con struggle to handle large volumes of data and high traffic, leading to performance bottlenecks. For egg, in some breentralized payment processing enission systiem, adviring. "peak times such as holidays or soles events, the system may become overloaded , cousing délays or évent failures hasilor nin proteessings letransactions days all -4) Lock of transparency => Centralized systems may lack dransparency istindecision-making processes interources allocation or even in the validation mand

Ladicition and things of the transactioned about 1910 5.2 + For e.g., in a astreadized supply chain management system based on blockchain, if the central authority controlling the system battalidoes contrabilion note provides open laccess to interpretation datation supply chain management information or stakeholders may not have - 19th clear Miviews of the entire process (leading - to the ladistingtogond in Efficiencies arrages all operation no central authority nodes explained town Regulatory Risks . Indias D. Centrallized Layatemis (some more suspectible at and orthosogovernment aboregulations mande interventions which can thimpact bith eits reperation and sustainability. win totak (g of live : dentralized wasypto currenty Exchange ind acouldable white down or heavily regulated while and whield market was believed in reder indea one and order de

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9.2 Differentiate between centralized it is derentralized rand rastributed - systems of . P. 9 . of . monagenient eyetem based on blackehen . it the central authority applied the syltem - Centralized bivary Decentralized Distributed Lampor Systems plans systems notopor Systems infirmation or statetaldes may not have ( 1:000 ) Singles rentration De Multiple nodes with DeMultiple interserver controls? independent control, connected manages all operations no central authority nodes working togethe 2 x 2 x vot plassa single system aid 2) (entralized go dool 2) Distributed control, 2) Shared control, noith single point seach mode operates nodes collaborate bar of nomana gomentes Hindelpendently nos tolaichiere common · philidago alua High riski wife the 3 Reduced prisk; Failure 3) Reduced risk; hat plentral server fails of one node does not designed for fault the whole system foils impact entire system tolerance & redundany 4) Limited scalability, 4) More scalable ran 4) High scalable, can become a god notes indea- can add notes to bottleneck. pendently. distribute the bad. Easier to manage 5) More complex, centrally. requires managing 5) Complex, require coordination & mang. multiple node. general of many nodes 6) Lower latency , 6) can vary, depends (5) Potentially higher as operations are on the distance latency due to managed centrally. between nodes. network communication.