

Assignment:2

A real-world application for networked systems is online social networks like Facebook, Whatsapp, Instagram, Threads, Twitter, etc..

parallel computing: It is used to process and analyze vast amounts of user-generated content, including posts, images, videos, and comments, in parallel across multiple computing nodes.

This parallel processing allows social networks to handle the high volume of content generated by millions of users in real-time.

Parallel computing and networked systems help social networks deliver content quickly by distributing it across geographically dispersed servers and caching frequently accessed content closer to users.

This reduces latency and improves the user experience, especially for users accessing the platform from different regions around the world.

Networked systems: It enable millions of users to connect and interact with each other in real-time, sharing information, photos, videos, and more.

These systems rely on distributed architectures and communication protocols to facilitate seamless connectivity and data exchange among users worldwide.

Networked systems play a crucial role in distributing this content efficiently to users' devices.

Content delivery networks (CDNs) are employed to cache and distribute frequently accessed content to servers located closer to users, reducing latency and improving load times. Networked systems also facilitate the distribution of updates, notifications, and real-time interactions between users and the platform's servers.

Importance:

parallel computing in content delivery and caching for social networks like Facebook, Twitter, and Instagram improves scalability, reduces latency, enhances reliability, and enables personalized user experiences, contributing to the success and popularity of these platforms.

Networked systems are important in this context because they enable social interaction on a massive scale, allowing people to communicate and collaborate regardless of geographical distance.

Additionally, networked systems provide scalability and reliability, ensuring that these platforms can handle the immense volume of traffic and user interactions they receive daily.