1.Draw your Home Network Topology and explain how you are accessing the RPS Lab environment.

CLOUD

 SERVER

 



2. Identify a real-world application for both parallel computing and networked systems. Explain how these technologies are used and why they are important in that context.

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 realtime 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