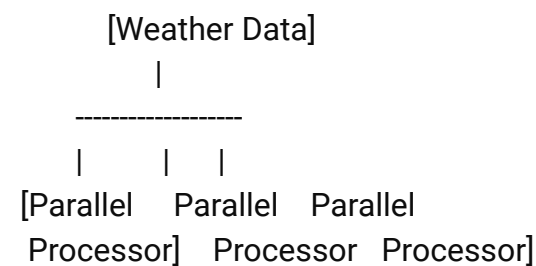


Assignment 2: Identify a real-world application for both parallel computing and networked systems. Explain how these technologies are used and why they are important in that context.

Ans:

Parallel computing:

Parallel computing plays a crucial role in weather forecasting, where vast amounts of data need to be processed quickly and efficiently. Weather prediction involves complex mathematical models that simulate atmospheric conditions based on various parameters such as temperature, pressure, humidity, wind speed, and geographical features.



Ex:Parallel Computing (Weather Forecasting):

- Application: Weather forecasting.
- Explanation: Parallel computing divides the workload of complex weather models across multiple processors or nodes, enabling faster processing of vast amounts of data.
- Importance: Faster and more accurate weather predictions, crucial for disaster preparedness, agriculture, transportation, and various industries affected by weather conditions.

networked systems:

Networked systems encompass a wide range of hardware and software components that enable communication and data exchange between devices, servers, and services. They include networks, protocols, servers, clients, routers, switches, and various networking technologies.

Ex:

[User Devices] <--> [Internet] <--> [Bank Servers]

Networked Systems (Online Banking):

- Application: Online banking.

- Explanation: Networked systems facilitate secure communication and transactions between clients and banking servers through web or mobile applications.
- Importance: Accessibility from anywhere, security of sensitive financial data, reliability of banking services, and efficient transaction processing for customers and financial institutions.