

**Assignment 3: 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**

**Parallel Computing :**

Application: Weather Forecasting

**Usage:** Parallel computing is used to process large-scale simulations of weather models. These simulations require complex calculations involving vast amounts of data collected from various sources (e.g., satellites, weather stations).

**Importance:** Speed and accuracy are crucial in weather forecasting. Parallel computing allows meteorologists to run multiple simulations concurrently, improving the reliability and timeliness of weather predictions.

**Networked Systems :**

Application: Online Banking

**Usage:** Networked systems connect bank servers, ATMs, mobile banking apps, and online banking platforms. This integration allows real-time transactions, balance checks, fund transfers, and other banking services.

**Importance:** Ensures seamless and secure financial operations across different platforms and locations. Networked systems facilitate constant connectivity, ensuring that users have uninterrupted access to banking services regardless of their location.

These technologies are essential because they enhance computational efficiency (parallel computing) and connectivity (networked systems), leading to better performance, reliability, and user experience in various applications.