

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.

Parallel computing

In real-world applications, parallel computing is used in the educational sector, particularly in grading and assessment systems for large-scale tests.

Educational institutions collect large amounts of data from tests including student's performance. Parallel computing facilitates the analysis of this data by distributing data processing tasks across multiple processors, allowing educators to gain valuable insights into students' learning outcomes, identify areas of improvement, and inform instructional decision-making.

Why is parallel computing important in this context

- Parallel computing splits up the grading job among many computers, making it faster to grade tests for thousands or even millions of students.
- Parallel computing lets computers grade many tests all at once. This means students get their results back quickly.
- It helps educators assess student learning effectively, and provide timely feedback.
- Data analysis helps to find students good in which concepts and where they need improvement.

Networked systems

In real-world applications, a networked system is used in online banking.

In the last few years most peoples are using online banking, in this time networked systems enable individuals to access and manage their bank accounts, and interact with banking services through the Internet.

Why are networked systems important in this context

- Networked systems allow customers to access their bank accounts any time as long as they have an internet connection, it helps those who may not be able to visit the bank during regular business hours.
- It helps various financial transactions, including bill payments and online purchases these transactions are executed in real time.
- Networked systems play a vital role in online banking by providing convenient access to banking services.
- Making financial transactions more accessible, convenient and secure for customers in today's digital age.