Dividing Problems, Conquering Complexity: An Interactive Workshop on Algorithms

Master the art of solving by splitting, where logic, play, and strategy converge!

Setting:
Classroom

Participants:
Grades 6–8 students

Format:
Conceptual Exploration, Group Games, Collaborative Sorting, Challenges

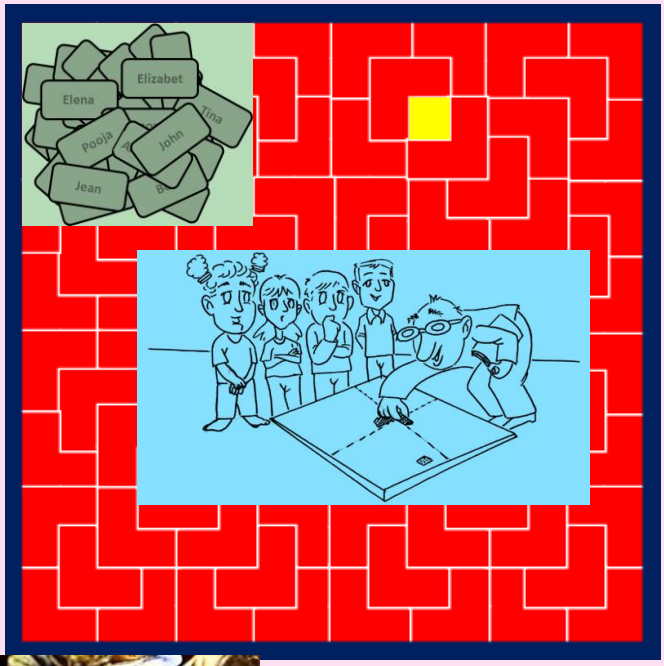
Description:

In this hands-on educational workshop, participants are introduced to the concept of algorithms through intuitive and engaging examples. They explore the fundamentals of "Divide and Conquer" algorithms, a powerful strategy widely used in computer science and beyond.
Through comparison with other algorithmic approaches (such as greedy algorithms), students gain insight into the strengths and limitations of different problem-solving methods.

Activities:

Interactive games bring the theory to life:

- Examples of applications of the divide and conquer algorithm (putting on shoes, carrying loads, moving from origin to destination, nesting),
- Tromino Sorting Game (2- or 4-player team challenge),
- Number Card Sorting Relay (collaborative group game).



Learning Outcomes:

These activities illustrate how breaking a complex task into smaller, manageable pieces can simplify and accelerate problem-solving.