# Text Processing, Pattern Searching, and Recursive Algorithms

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## **Keyword Searching**

Keyword searching identifies specific words or phrases within text documents, useful in indexing and retrieval.

## **Text Line Adjustment**

Text line adjustment involves formatting text to fit within display or printing constraints.

#### **Linear Pattern Search**

A search technique that sequentially examines text for pattern matches.

#### **Sublinear Pattern Search**

An optimized search approach that skips unnecessary comparisons, improving efficiency.

#### Recursion

Recursion is a problem-solving technique where a function calls itself to break down complex tasks.

#### **Towers of Hanoi**

A classic recursive problem involving the transfer of disks between pegs following specific rules.

### **Sample Generation**

The process of creating test cases or data samples using recursive techniques.

## **Combination Generation**

Generating all possible subsets or groups from a given set of elements using recursion.

## **Permutation Generation**

Arranging a set of elements in different orders using recursive techniques.

## **Pseudocode and Flowchart**

Pseudocode offers a structured algorithmic representation, while flowcharts depict process flows visually.